# 1. Feature catalogue

#### Feature catalogue metadata

Application Schema	Open Land Use Core
Version number	2.0.0

Note that further application schemas may be developed from the Open Land Use Core application schema in the future.

#### Types defined in the feature catalogue

Туре	Package	Stereotypes
OLUObject	OpenLandUseCore	< <featuretype>&gt;</featuretype>
OLUAttributeSet	OpenLandUseCore	
CLCValue	OpenLandUseCore	< <codelist>&gt;</codelist>
HILUCSValue	OpenLandUseCore	< <codelist>&gt;</codelist>
OriginDataset	OpenLandUseCore	
OriginMetadata	OpenLandUseCore	
OLUTheme	OpenLandUseCore	
AdministrativeUnit	OpenLandUseCore	< <featuretype>&gt;</featuretype>

# 1.1. OLUObject

OLUObject	
Name: Definition:	OLUObject A representation of a real-world phenomenon in terms of land use theme with explicit localization.
Stereotypes:	< <featuretype>&gt;</featuretype>
Attribute: fid	

Name: uniqueIdentifier

Value type: Integer

Definition: Internal object identifier.

Description: Internal object identifier assigned during the first import of an

object and persistent until an object ceased to exist.

Multiplicity: 1

Attribute: zValue

Name: zValue Value type: Integer

Definition: Order of a particular OLUObject.

Description: The z-value defines the order of a particular OLUObject in the set of

datasets.

Multiplicity:

Attribute: validFrom

Name: validFrom Value type: TM\_Object

Definition: Beginning of the OLUObject lifespan Beginning of the OLUObject lifespan

Multiplicity: 0..1

Attribute: validTo

Name: validTo
Value type: TM Object

Definition: End of the OLUObject lifespan
Description: End of the OLUObject lifespan

Multiplicity: 0..1

Attribute: geometry

Name: geometry

Value type: | GM\_MultiPolygon

Definition: Geometry associated with the OLUObject.

Description: Geometry associated with the OLUObject as defined in an imported

dataset

Multiplicity: 1

Association role: originatedFrom

Name: originatedFrom Value type: OriginDataset

Definition: OriginDataset from which OLUObject is originated

Description: OriginDataset from which OLUObject is originated when original

dataset was imported in the model

Multiplicity: 1

Stereotypes:

Association role: relatedTo

Name: relatedTo

Value type: OLUAttributeSet

Definition: AttributeSet to which OLUObject is related

Description: AttributeSet to which OLUObject is related by spatial relation or by

definition as described in the imported dataset

Multiplicity: Stereotypes: 1..\*

Association role: relatedTo

Name: relatedTo

Value type: AdministrativeUnit

Definition: AdministrativeUnit to which OLUObject is related

Description: AdministrativeUnit to which OLUObject is related by spatial relation

Multiplicity: Stereotypes: 1..\*

1.2. OLUAttributeSet

**OLUAttributeSet** 

Name: AttributeSet

Definition: The object for storing non-geometric attributes of OLUObject.

Stereotypes:

Attribute: fid

Name: uniqueIdentifier

Value type: Integer

Definition: Internal object identifier.

Description: Internal object identifier assigned during the first import of an

object and persistent until an object ceased to exist.

Multiplicity: 1

Attribute: clcValue

Name: clcValue Value type: Integer

Definition: Identifier of the CLC category

Description: Identifier representing the category form the Corine Land Cover

(CLC) classification.

Multiplicity: 1

Attribute: hilucsValue

Name: hilucsValue Value type: Integer

Definition: Identifier of the HILUCS category

Description: Identifier representing the category of the HILUCS classification

Multiplicity:

Attribute: otherAttributes

Name:
Value type:
Definition:
Description:
OtherAttributes
CharacterString
Set of other attributes of the OLUObject
Text containing additional attributes of the OLUObject as defined in an imported dataset, formatted in a set of key-value pairs

Multiplicity:

Multiplicity:

Attribute: attributeOrigin

Name: attributeOrigin
Value type: AttributeOriginType

Definition: Category of origin of the AttributeSet

Description: The category of origin of the AttributeSet defines whether the set of

attributes was imported together with OLUObject from the original

dataset or related by model.

Multiplicity:

Association role: relatedTo

Name: relatedTo Value type: OLUObject

Definition: OLUObject to which AttributeSet is related

Description: OLUObject to which AttributeSet is related by spatial relations or by

definition as described in the original dataset

Multiplicity: 1..\*

Stereotypes:

Association role: originatedFrom

Name: originatedFrom Value type: OriginDataset

Definition: OriginDataset from which AttributeSet is originated

Description: OriginDataset from which AttributeSet is originated when original

dataset was imported in the model

Multiplicity:

Stereotypes:

## 1.3. OriginDataset

OriginDataset	
Name: Definition:	OriginDataset Representation of the original dataset imported to the data model containing representations of a real-world phenomena by geometric and non-geometric features.
Stereotypes:	
Attribute: identifier	

identifier Name: Integer Value type: Definition: Internal identifier of an imported dataset. Description: Internal identifier of an imported dataset providing geometric and/or non-geometric features for OLUObject. Multiplicity: Attribute: URI URI Name: Value type: **URI** Definition: Link to the data set Description: Link to the imported data set according to the identifier indicated in the attribute identifier. Multiplicity: Attribute: datasetType Name: datasetType Value type: DatasetTypeValue Definition: The type of origin dataset. Description: The type of the origin dataset used for describing the type of the dataset imported to the model - reference, thematic etc. Multiplicity: Association role: relatedTo relatedTo Name: Value type: OriginMetadata Definition: OriginMetadata to which OriginDataset is related Description: OriginMetadata to which OriginDataset is related as it contains fully Multiplicity: metadata description of the OriginDataset Stereotypes:

## 1.4. OriginMetadata

OriginMetadata	
Name: Definition:	Metadata  Means information describing spatial data sets and spatial data services and making it possible to discover, inventory and use them.
Stereotypes:	services and making it possible to discover, inventory and use them.
Attribute: identifier	
Name: Value type: Definition: Description: Multiplicity:	identifier Integer Internal identifier of a set of metadata of a dataset Internal identifier of a set of metadata of a dataset providing geometric and/or non-geometric features for OLUObject. 1
Attribute: originNam	ne

Name: originName Value type: CharacterString

Definition: Full name of the origin dataset

Description: Textual full name of the origin dataset

Multiplicity: 1

Attribute: validFrom

Name: validFrom Value type: TM Object

Definition: Beginning of the dataset lifespan Beginning of the dataset lifespan

Multiplicity: 0..1

Attribute: validTo

Name: validTo
Value type: TM Object

Definition: End of the dataset lifespan End of the dataset lifespan

Multiplicity: 0..1

Attribute: metadata

Name: metadata
Value type: CharacterString

Definition: Metadata record from the metadata catalogue

Description: Metadata record from the metadata catalogue (produced by Micka

dataset catalogue, in Micka-lite profile)

NOTE 1: Metadata are stored in the form of XML document thus the

data type should accept XML format.

Multiplicity:

Attribute: geometryType

Name: geometryType
Value type: GeometryTypeValue

Definition: Type of geometry of the original dataset Type of geometry of the original dataset

Multiplicity:

Attribute: columnNames

Name: columnName Value type: CharacterString

Definition: List of column names of the original dataset List of column names of the original dataset

Multiplicity:

Attribute: zValue

Name: zValue Value type: Integer

Definition: Order of a particular OriginDataset.

Description: The z-value defines the order of a particular OriginDataset in the set

of datasets.

Multiplicity:

Attribute: isReference

Name: isReference Value type: Boolean

Definition: Defines if the OriginDataset contains reference geometries.

Description: Defines whether the OriginDataset contains reference geometries or

it contains thematic data imported to the model.

Multiplicity:

Association role: relatedTo

relatedTo Name: Value type: Theme

Definition: Theme to which OriginDataset is related Description: Theme to which OriginDataset is related. 1..\*

Multiplicity:

Stereotypes:

#### 1.5. **Theme**

Theme

Name: Theme

Definition: Stereotypes: Catalogue of themes characterizing content of imported datasets

Attribute: identifier

Name: identifier Value type: Integer

Definition: Internal identifier of a theme Internal identifier of a theme Description: 1

Multiplicity:

Attribute: themeName

Name: themeName Value type: CharacterString

Definition: Plain text denotation of the Theme Description: Plain text denotation of the Theme

Multiplicity: 1

Attribute: origin

Name: origin CharacterString Value type: Plain text description of origin of the Theme Definition: Description: Plain text description of origin of the Theme Multiplicity: Attribute: URI URI Name: URI Value type: Definition: Link to the theme Description: Link to the theme Multiplicity:

## 1.6. AdministrativeUnit

AdministrativeUnit		
Name: Definition:	Administrative unit Units of administration, dividing areas where countries have and/or exercise jurisdictional rights, for local, regional and national governance, separated by administrative boundaries.	
Stereotypes:	< <featuretype>&gt;</featuretype>	
Attribute: identifier		
Name: Value type: Definition: Description: Multiplicity:	identifier CharacterString External identifier of the administrative unit External identifier of the administrative unit defined by the origin of the administrative unit  1	
Attribute: unitName		
Name: Value type: Definition: Description: Multiplicity:	unitName CharacterString Plain text denotation of the Administrative unit Plain text denotation of the Administrative unit as it is defined in the origin of the administrative unit  1	
Attribute: origin		
Name: Value type: Definition: Description: Multiplicity:	origin URI Link to the origin of the Administrative Unit Link to the origin of the Administrative Unit 1	
Attribute: levelCode		

Name: levelCode Value type: integer

Definition: Level of the administrative unit in the hierarchy

Description: Level of the administrative unit in the hierarchy of administrative

division, harmonized with ISO 3166

Multiplicity: 1

Attribute: countryCode

Name: countryCode Value type: CharacterString

Definition: ISO 3166 Alpha-2 code of the country ISO 3166 Alpha-2 code of the country

Multiplicity:

Attribute: geometry

Name: geometry

Value type: GM\_MultiPolygon

Definition: Geometry associated with the Administrative Unit

Description: Geometry associated with the Administrative Unit as defined in the

origin of the Administrative Unit

Multiplicity: 1

Association role: parent

Name: parent

Value type: AdministrativeUnit

Definition: Parent administrative unit in the hierarchy

Description: Parent administrative unit in the hierarchy of administrative division

of the country

Multiplicity: 0..1