



Administrative Units in INSPIRE

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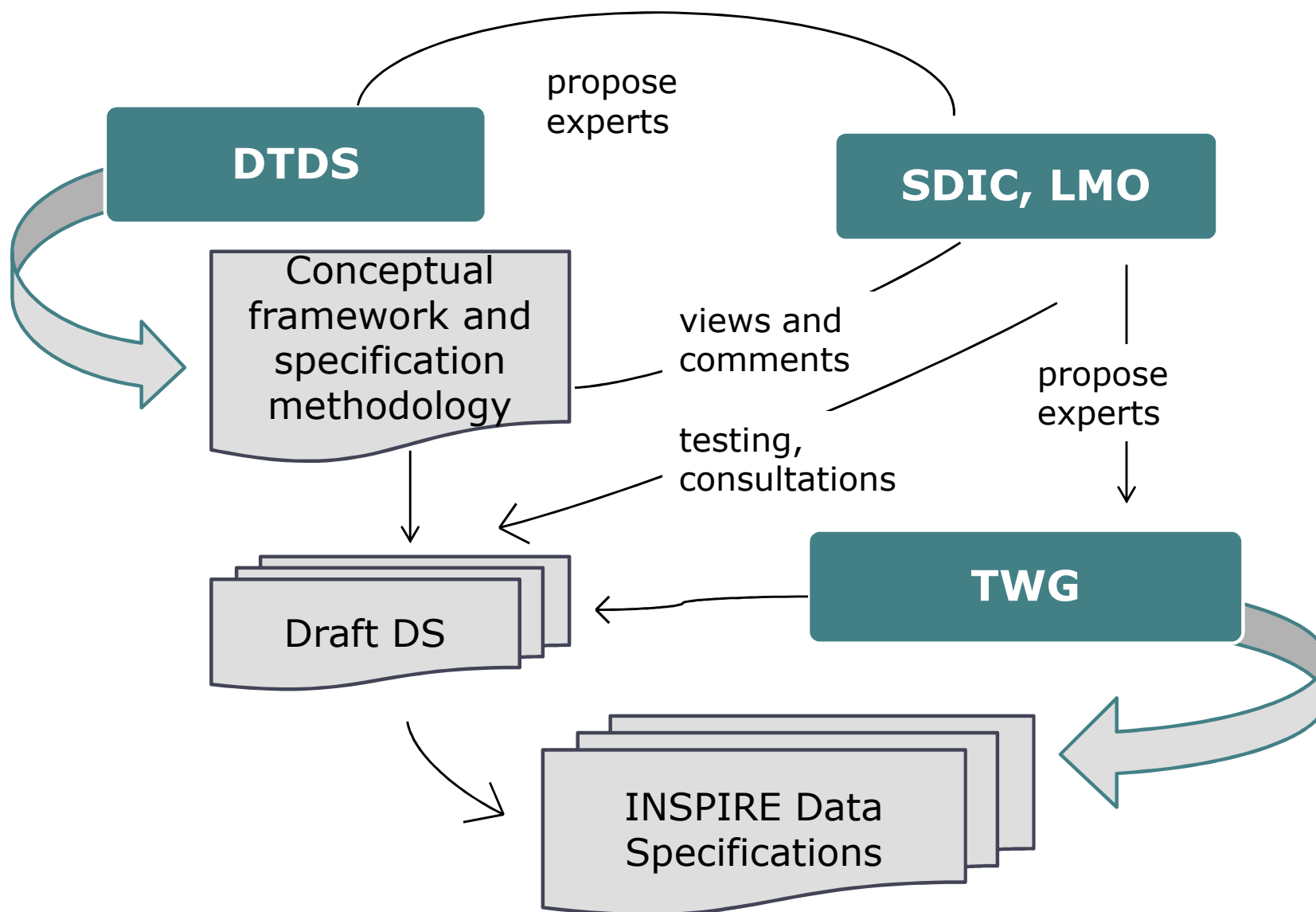
Why INSPIRE?



Spatial data:

- stored, available and maintained
 - consistent combining of spatial data from various sources
 - spatial data gathered at one level is shared with other government bodies
-
- metadata
 - **interoperability of spatial data sets and services,**
 - network services (discovery, view, download, transformation, invoke),
 - data sharing,
 - coordination and complementary measures.

Development of INSPIRE data specification



Development of INSPIRE data specification

Four documents describing common principles for data specifications across all spatial data themes

- Definition of Annex Themes and Scopes
- Generic Conceptual Model
- Methodology for the development of data specification
- Guidelines for the encoding of spatial data

 INSPIRE Infrastructure for Spatial Information in Europe Drafting Team "Data Specifications" Definition of Annex Themes and Scope <table><tr><td>Title</td><td>Drafting Team "Data Specifications" – Definition of Annex Themes and Scope</td></tr><tr><td>Creator</td><td>Drafting Team "Data Specifications"</td></tr><tr><td>Date</td><td>2008-03-18</td></tr><tr><td>Subject</td><td>Definition and scope of the INSPIRE data specifications</td></tr><tr><td>Publisher</td><td>Drafting Team "Data Specifications"</td></tr><tr><td>Type</td><td>Text</td></tr><tr><td>Description</td><td>This document defines the common principles for the development of data specifications across all spatial data themes.</td></tr><tr><td>Contributor</td><td>Members of the INSPIRE Drafting Team "Data Specifications"</td></tr><tr><td>Format</td><td>MS Word (doc)</td></tr><tr><td>Source</td><td>Drafting Team "Data Specifications"</td></tr><tr><td>Rights</td><td>Public</td></tr><tr><td>Identifier</td><td>D2.3_v3.0.doc</td></tr><tr><td>Language</td><td>en</td></tr><tr><td>Relation</td><td>n/a</td></tr><tr><td>Coverage</td><td>Project duration</td></tr></table>	Title	Drafting Team "Data Specifications" – Definition of Annex Themes and Scope	Creator	Drafting Team "Data Specifications"	Date	2008-03-18	Subject	Definition and scope of the INSPIRE data specifications	Publisher	Drafting Team "Data Specifications"	Type	Text	Description	This document defines the common principles for the development of data specifications across all spatial data themes.	Contributor	Members of the INSPIRE Drafting Team "Data Specifications"	Format	MS Word (doc)	Source	Drafting Team "Data Specifications"	Rights	Public	Identifier	D2.3_v3.0.doc	Language	en	Relation	n/a	Coverage	Project duration	 INSPIRE Infrastructure for Spatial Information in Europe INSPIRE Generic Conceptual Model <table><tr><td>Title</td><td>INSPIRE Generic Conceptual Model</td></tr><tr><td>Creator</td><td>Drafting Team "Data Specifications"</td></tr><tr><td>Date</td><td>2008-03-18</td></tr><tr><td>Subject</td><td>Conceptual Model of the INSPIRE data specifications</td></tr><tr><td>Publisher</td><td>Drafting Team "Data Specifications"</td></tr><tr><td>Type</td><td>Text</td></tr><tr><td>Description</td><td>This document defines the common principles for the development of data specifications across all spatial data themes.</td></tr><tr><td>Contributor</td><td>Members of the INSPIRE Drafting Team "Data Specifications"</td></tr><tr><td>Format</td><td>MS Word (doc)</td></tr><tr><td>Source</td><td>Drafting Team "Data Specifications"</td></tr><tr><td>Rights</td><td>Public</td></tr><tr><td>Identifier</td><td>D2.4_v3.0.doc</td></tr><tr><td>Language</td><td>en</td></tr><tr><td>Relation</td><td>n/a</td></tr><tr><td>Coverage</td><td>Project duration</td></tr></table>	Title	INSPIRE Generic Conceptual Model	Creator	Drafting Team "Data Specifications"	Date	2008-03-18	Subject	Conceptual Model of the INSPIRE data specifications	Publisher	Drafting Team "Data Specifications"	Type	Text	Description	This document defines the common principles for the development of data specifications across all spatial data themes.	Contributor	Members of the INSPIRE Drafting Team "Data Specifications"	Format	MS Word (doc)	Source	Drafting Team "Data Specifications"	Rights	Public	Identifier	D2.4_v3.0.doc	Language	en	Relation	n/a	Coverage	Project duration
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34 themes

Annex I

- 1 Coordinate reference systems
- 2 Geographical grid systems
- 3 Geographical names
- 4 Administrative units
- 5 Addresses
- 6 Cadastral parcels
- 7 Transport networks
- 8 Hydrography
- 9 Protected sites

Annex II

- 1 Elevation
- 2 Land cover
- 3 Orthoimagery
- 4 Geology

Annex III

- 1 Statistical units
- 2 Buildings
- 3 Soil
- 4 Land use
- 5 Human health and safety
- 6 Utility and governmental services
- 7 Environmental monitoring facilities
- 8 Production and industrial facilities
- 9 Agriculture and aquaculture facilities
- 10 Population distribution - demography
- 11 Area management/restriction/regulation zones and reporting units
- 12 Natural risk zones
- 13 Atmospheric conditions
- 14 Meteorological geographical features
- 15 Oceanographic geographical features
- 16 Sea regions
- 17 Bio-geographical regions
- 18 Habitats and biotopes
- 19 Species distribution
- 20 Energy resources
- 21 Mineral resources

Administrative Units within INSPIRE

“ Units of administration, dividing areas where Member States have and/or exercise jurisdictional rights, for local, regional and national governance, separated by administrative boundaries.”

AU are described with:

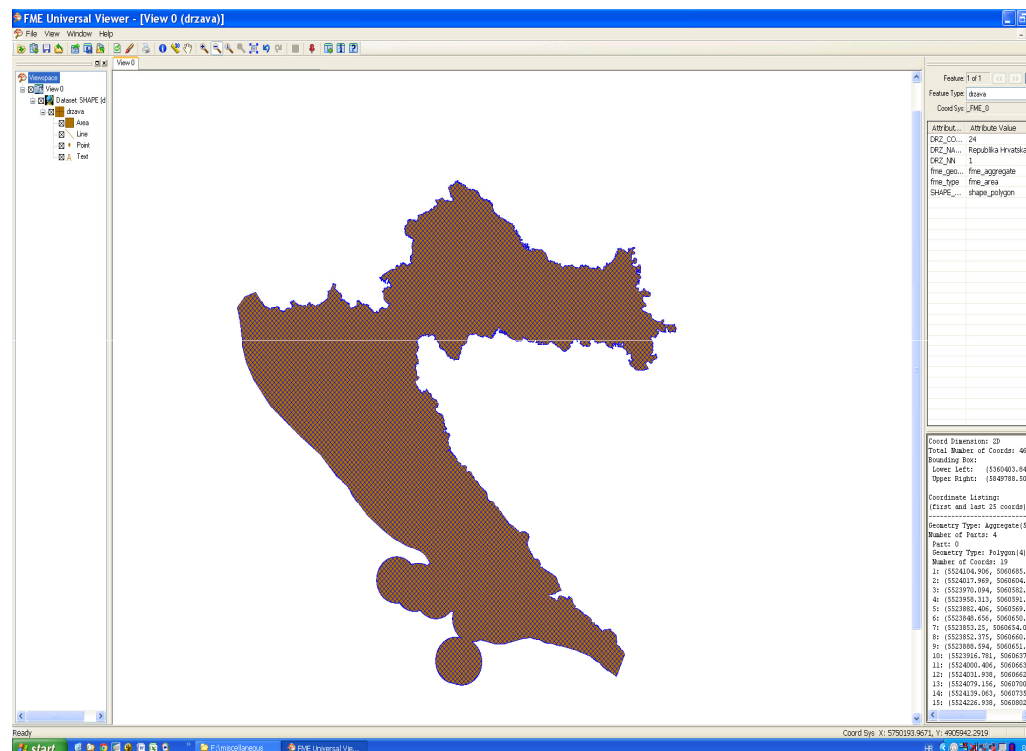
- geographical name
- country of location
- the national administrative code
- the hierarchical level within administrative structure of the country

If available:

- “life cycle” information (when the administrative unit has been inserted or changed in the dataset, and when it has been (if ever) superseded or retired in the spatial data set)
- the name of the corresponding national level (županija, općina...)
- the residence of the administrative authority

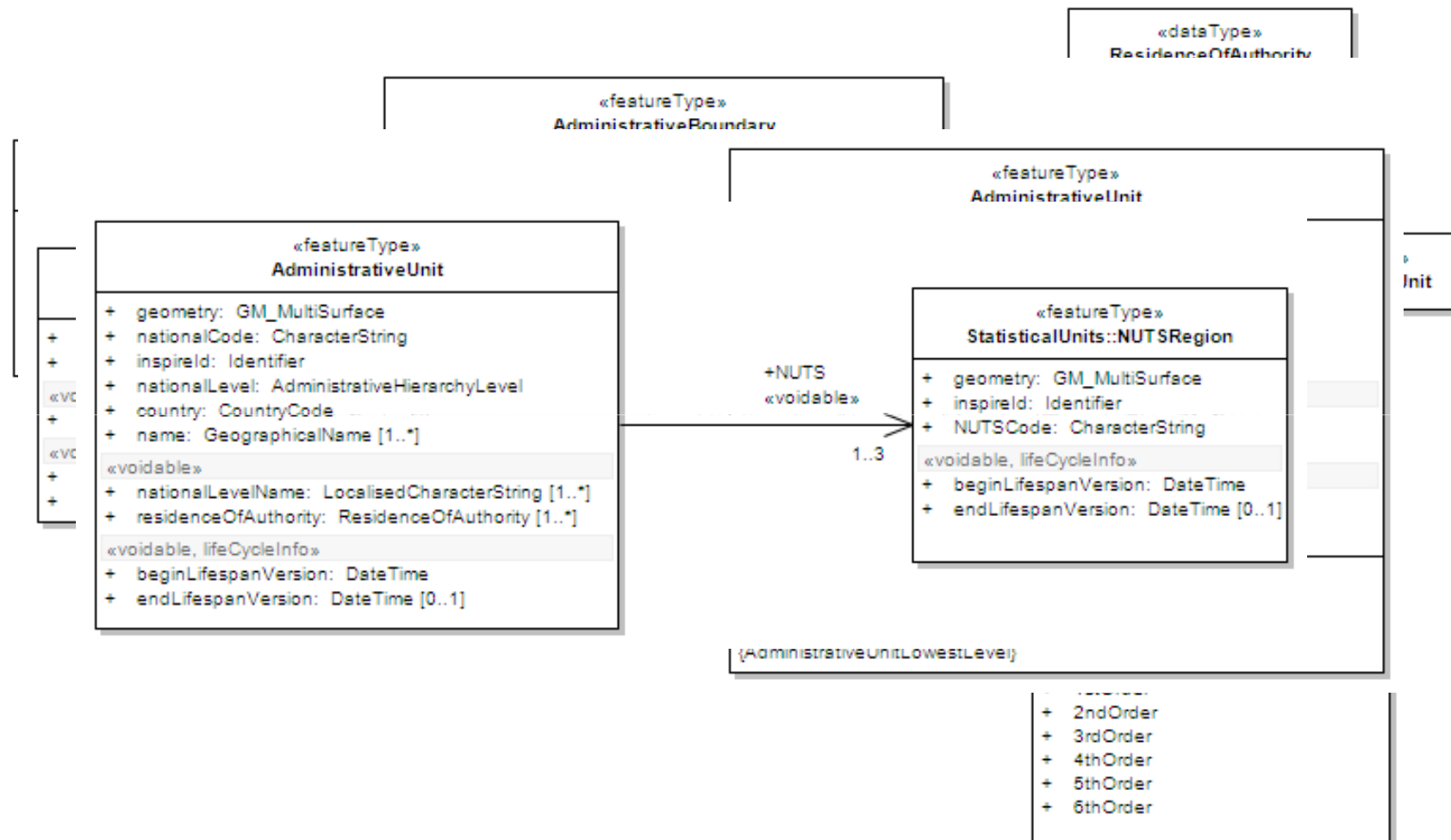
EuroBoundaryMap

- TWG has considered widely the achievements of the EuroBoundaryMap product
- Spatial extent of INSPIRE administrative units is not further decomposed into subareas, like land areas, islands, inland water or coastal water areas

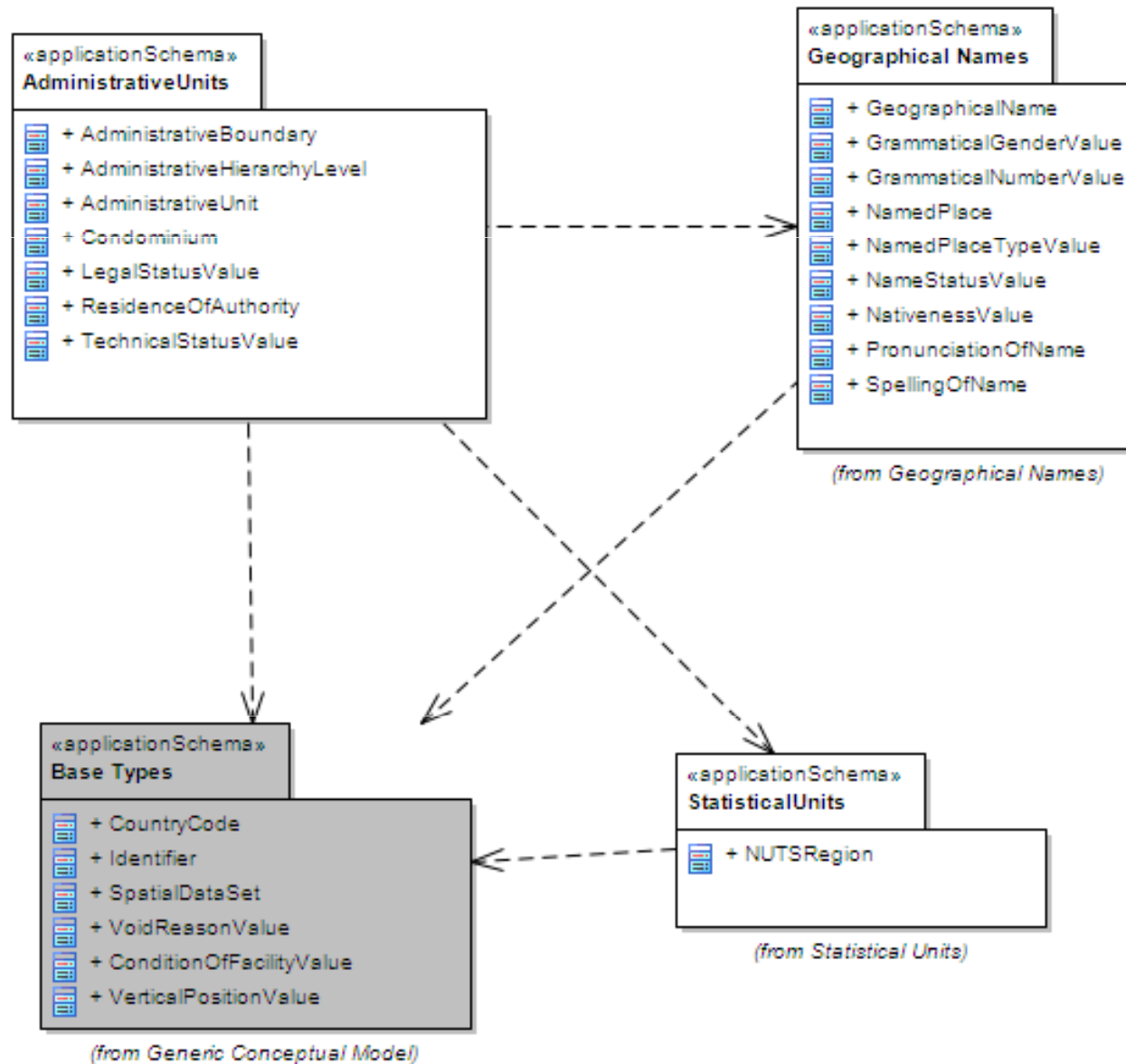


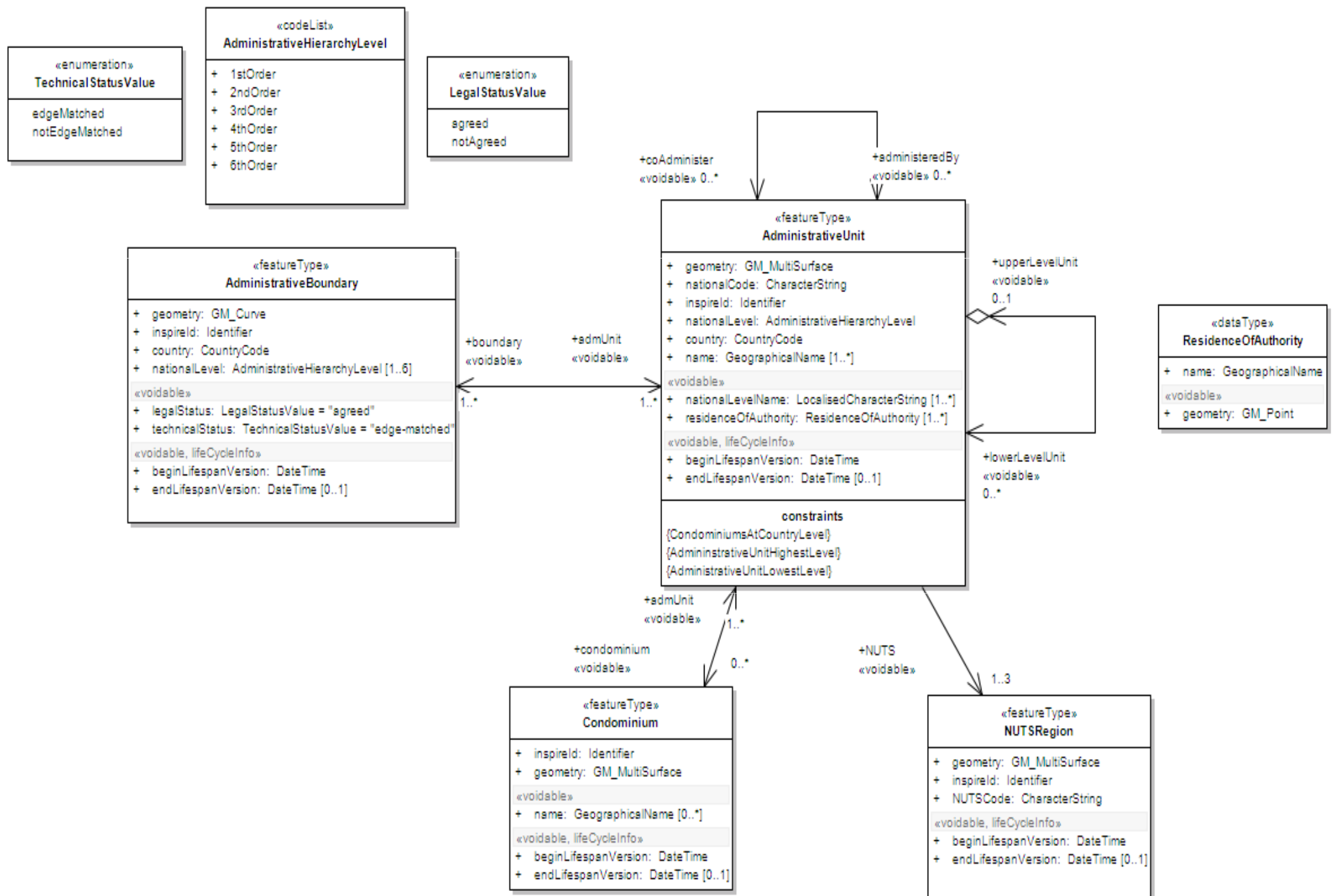
AU schema

1. Administrative Unit
2. Administrative Boundary
3. Condominium
4. NUTS Regions

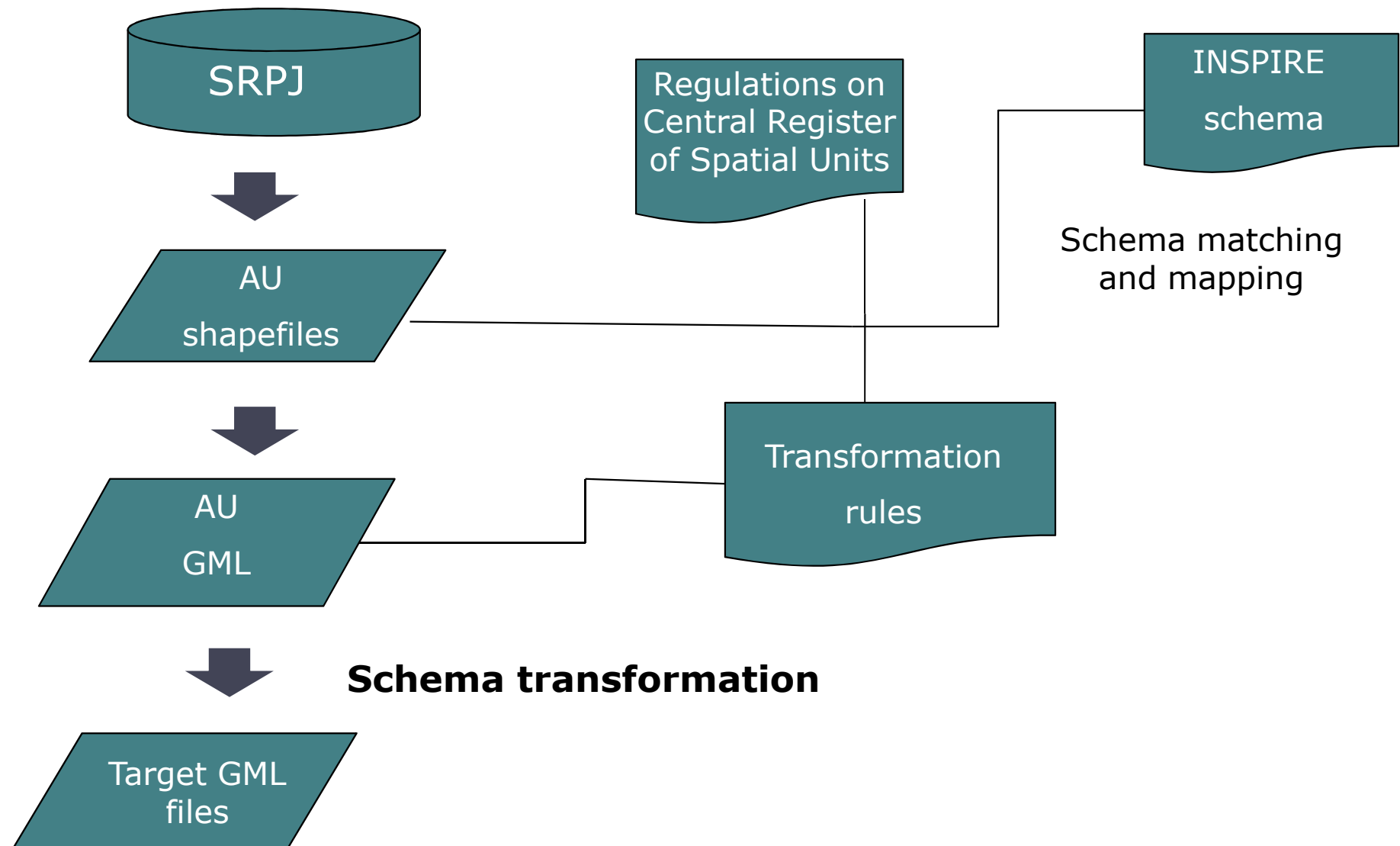


AU schema

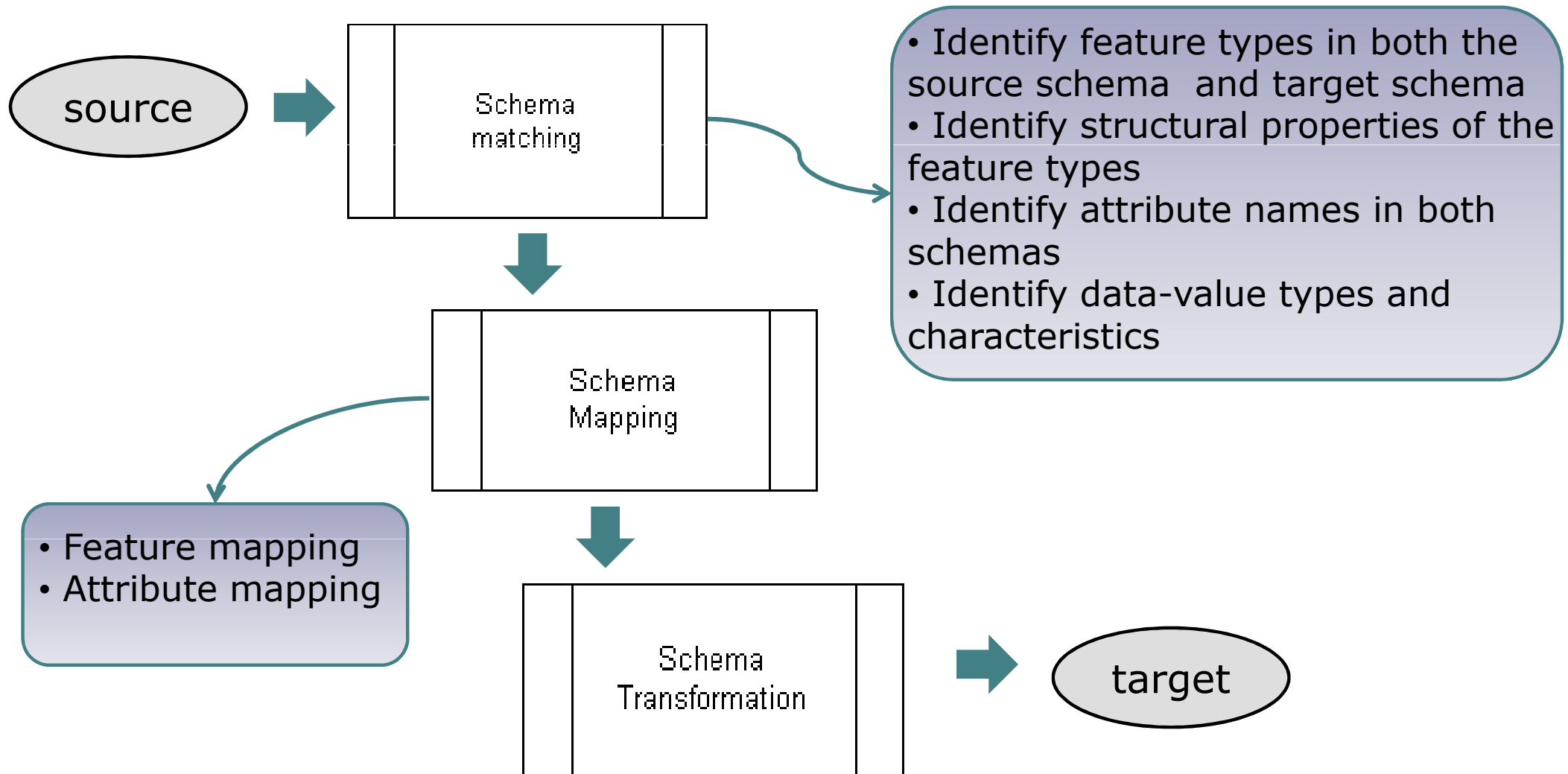




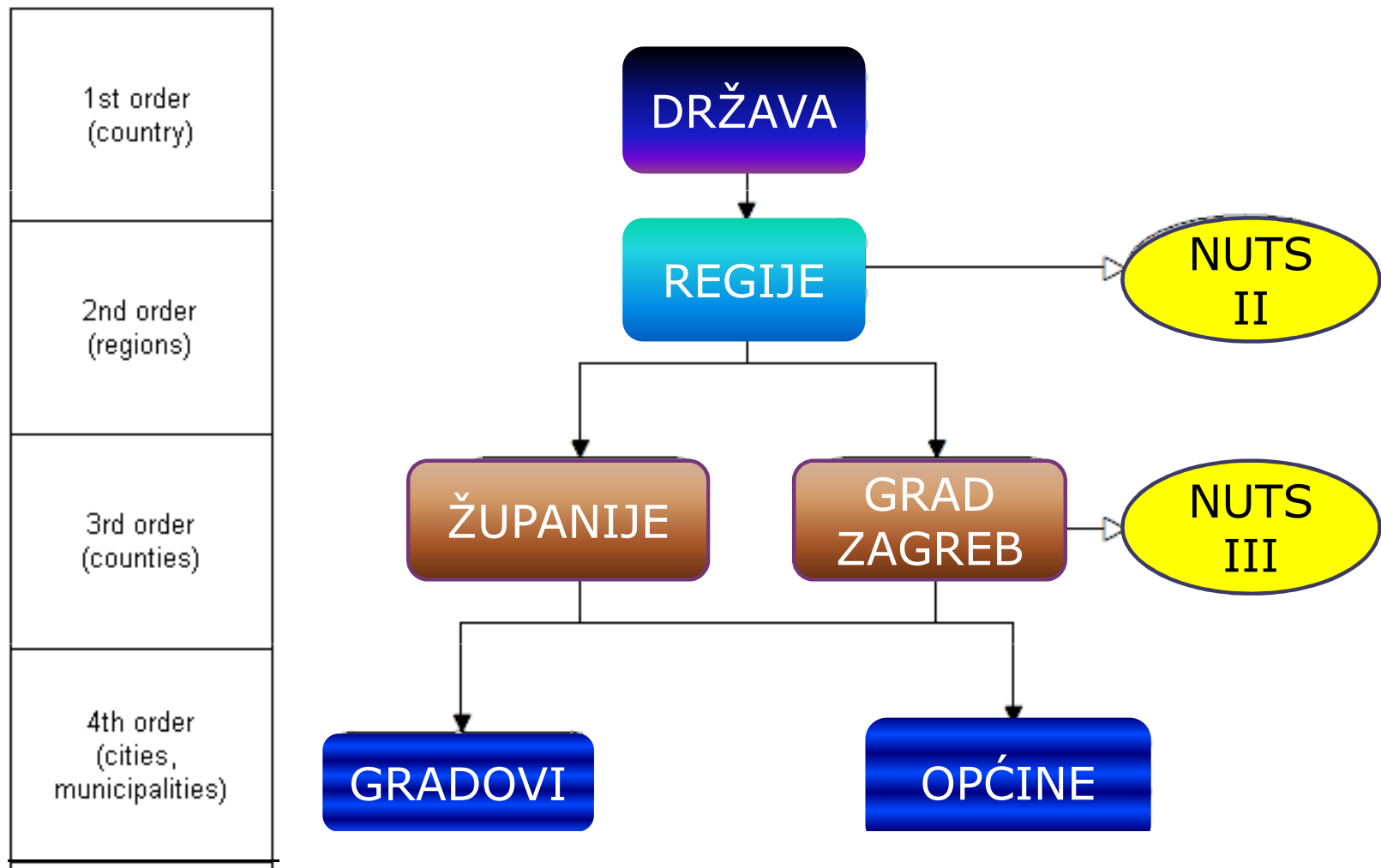
Methodology



Schema translation



Hierarchy by INSPIRE



Matching tables

DRZAVA

Poligonski sloj DRZAVA sadrži jedan zapis, a obuhvaća sav kopneni teritorij republike Hrvatske, otoka i teritorijalno more Republike Hrvatske

Value type

Stereotypes

geometry	GM_multisurface	
nationalCode	CharacterString	
country	CountryCode	
name	GeographicalName	
residenceOfAuthority	ResidenceOfAuthority	voidable
beginLifespanversion	DateTime	voidable
endLifespanVersion	DateTime	voidable
inspireId	Identifier	
nationalLevel	AdministrativeHierarchyLevel	
nationalLevelName	LocalizedCharacterString	voidable

og za Grad
Svi

ASSOCIATION ROLE

Poligonski sloj OPĆINE predstavlja područja gradova ili općina. Zupanje su podijeljene na

Value type

Stereotypes

boundary	AdministrativeBoundary	voidable
condomnium	Condomnium	voidable
lowerLevelUnit	AdministrativeUnit	voidable
upperLevelUnit	AdministrativeUnit	voidable
NUTS	NUTSRegion	voidable

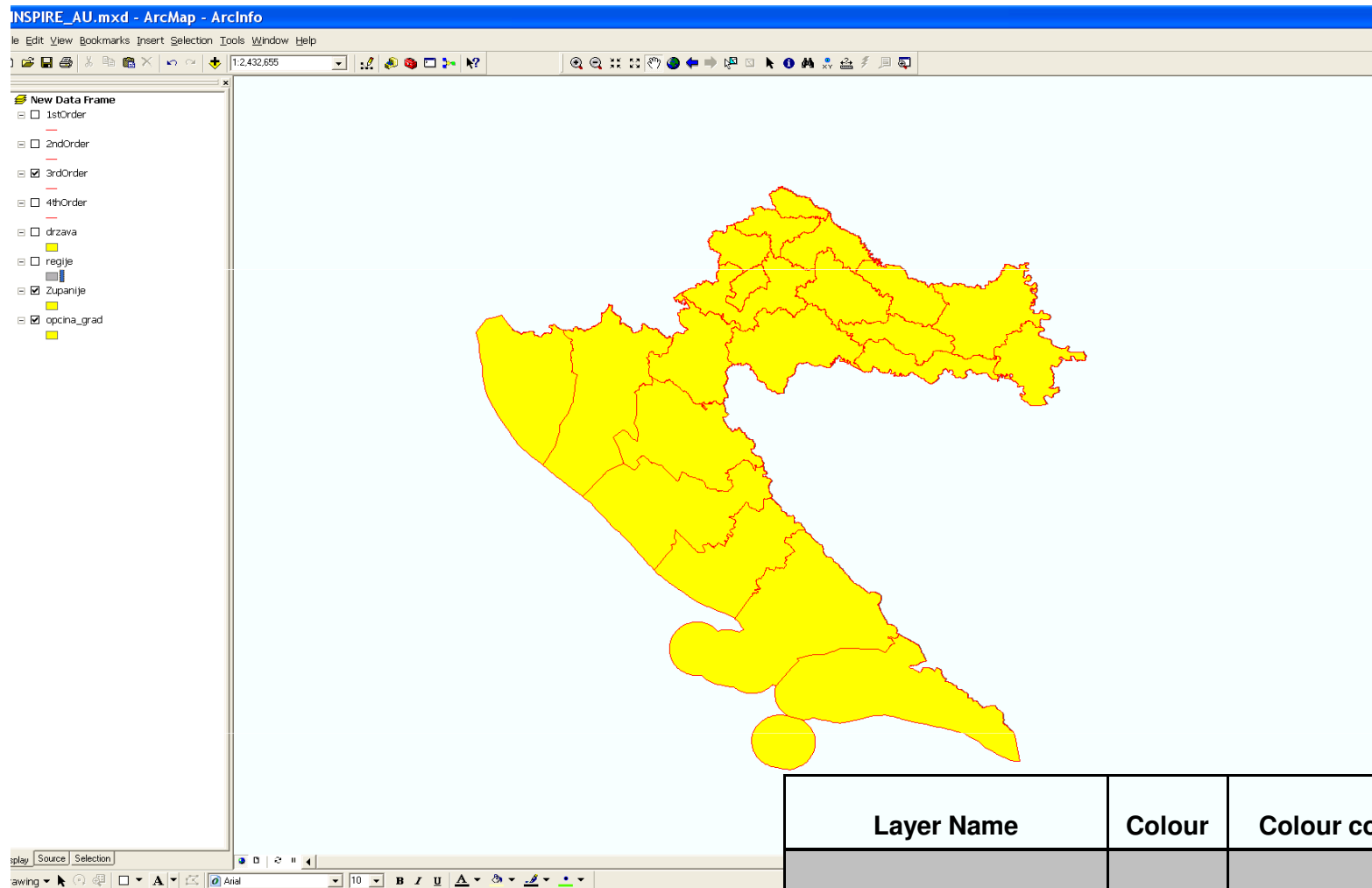
prema
kao i sve

OG_MB	String	6	Matični broj općine, odnosno grada.
OG_NAZIV	String	80	Naziv općine, odnosno grada.
OG_STATUS	String	1	Status grad ili općine

Matching tables

ATTRIBUTE	Value type	Source data
geometry	GM_multisurface	✓
nationalCode	CharacterString	šifarnik vrsta prostornih jedinica
country	CountryCode	Hr
name	GeographicalName	✓
residenceOfAuthority	ResidenceOfAuthority	✓/općine
beginLifespanVersion	DateTime	✗
endLifespanVersion	DateTime	✗
inspireId	Identifier	HR_SRPJ/id
nationalLevel	AdministrativeHierarchyLevel	✓
nationalLevelName	LocalizedCharacterString	✓
ASSOCIATION ROLE	Value type	Definition
boundary	AdministrativeBoundary	✓
condomnium	Condomnium	✗
lowerLevelUnit	AdministrativeUnit	✗
upperLevelUnit	AdministrativeUnit	✓
NUTS	NUTSRegion	✓

Default Styles



Layer Name	Colour	Colour code	Fill	Line
AdministrativeUnit	Yellow	#FFFF66	X	
AdministrativeBoundary	Red	#FF0033		X
Condominium	Violet	#FF99FF	X	
NUTSRegion	Gray	#E5E5E5	X	

Required knowledge

- *INSPIRE directive, implementing rules and guidelines*
- *UML: to understand the target data model*
- *RDBMS: to understand relational models*
- *XML: needed to understand GML*
- *GML: needed to understand encoding*
- *INSPIRE: GMLv3.2.1*
- *Network services: needed to publish harmonised data*

"Term Spatial Data Infrastructure encompasses the policies, organisational remits, data, technologies, standard delivery mechanisms and financial and human resources necessary to ensure that those working with spatial data, whether at the global or the local scale, are not impeded in meeting their objectives".

Bernard et al. (2005)

