Jurisdictional Domain Ontology Requirement Specification

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These are Dublin Core metadata elements. See for more details and examples http://www.dublincore.org/

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ACRONYMS AND ABBREVIATIONS

Abbreviation	Name

GLOSSARY

Term	Definition

1 PURPOSE

The purpose of building the Jurisdictional Domain Ontology is to provide a reusable knowledge model that facilitates the representation of country based jurisdictional models. It has as objective to allow representing the administrative, spatial and temporal characteristics of the jurisdictional models.

2 SCOPE

The ontology is focused on the jurisdictional model area. The domain ontology is general enough to be used for different country models. The first application domain to focus is the Spanish model.

3 IMPLEMENTATION LANGUAGE

The ontology is implemented in RDF/OWL language.

4 INTENDED USES

Use 1. Obtain the properties, geometry and evolution of a domain

Use 2. Identify the administrative hierarchy of the country

Use 3. Determine the domain/s that succeeds to other one and the cause of the succession.

Use 4. Identify the existent domains at a given period of time.

Use 5. Locate the properties valid for a domain at a given date /period.

5 ONTOLOGY REQUIREMENTS

5.1 Non functional requirements

NFR1. The ontology must be based on a generally used top level ontology to facilitate their reuse and connection with other models.

NFR2. The ontology must support a multilingual scenario

NFR3. The geometries must be represented using the WGS84 reference system

5.2 Functional requirements

FR1. It is needed to differentiate between states, divisions of a state and supra-national organizations.

FR2. The hierarchical organization of the jurisdictional domains must be explicitly stated.

FR3. It must contain the official names of the domains.

FR4. More than one official name may be valid as the same time.

FR5. In a domain, only one geometry and type of the domain can be valid in a given instant of time.

FR6. Since all the properties of a jurisdictional domain may change along the time, it must be possible to indicate the period of time in which they are valid for all of them.

FR7. Given that the jurisdictional domains may evolve into other domains, the type of change and when it has happened must be stored in the model.

FR8. The domains can be created, destroyed or evolve into other domains through a limited set of operations: Fusion with other domain, Incorporation into other domain, segregation from other domain, dissolution into other domains and partial incorporation of a subset of the domain into other one.