Semantic model for Land Registers Information: Interoperability

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Vision

Efficient implementation EU Regulations

- Qualified and complete Information from Land Registers within the scope of judicial cooperation
Exchange information on the framework of LR systems, according to a shared data model integrated on e-Justice

Descriptive metadata to characterize the content of the information objects of the LR systems

Concept schema to map European property rights systems
Mission

Provide legal certainty

- Developing an area of justice on civil and commercial matters, promoting Judicial Cooperation
- Increase the trust of consumers

Enhance European single market

- Making easier LRI access and cross border transactions
- Enhance foreign investments
LRI: current situation

Different structure format
LRI/ELRD common template + metadata
IMOLA needs assessment

Defining a semantic model

- Making understandable LR information: a common language for EU Land registers
- ELRA project at the service of EU citizens
IMOLA semantic keys issues and results

Standardizing
- ELRD XSD: common template

Understanding
- IMOLA KOS: reference information and metadata integrated on e.Justice. ELRN input system collaborative environment

Disseminating
- IMOLA WS: Information interoperability
ELRD

LRI: ELRD definition on messaging and communication model. Different formats: PDF, XML, etc

LRS: integration and adaptation the internal interfaces to XSD. Configurable set of validation rules

ISA core vocabularies alignment
Interoperability

Standard alignment with ISA and Core Vocabularies

- **CORE PERSON V**
  - Name
  - Gender
  - Date of birth
  - ...

- **LEGAL PERSON V**
  - Identifier
  - Activities
  - ...

- **CORE LOCATION**
  - Address
  - A geographic name or geometry
  - ...

- **IMOLA Vocabulary**
  - LRI property rights
  - Semantic model
  - Thesaurus
Environmental public limitations
Cadastral parcel boundaries
Owner land survey overlapping
Legal procedure for validation

Legal boundaries

Neighbors affected

Orto_ETRS89_HU30_h50_0990
IMOLA KOS

Creation of I-KOS by means of input and transformation system

I-KOS Customized to ELRD

Hosting and maintenance
IMOLA KOS feedback

I-KOS

Input System

Validation data

IMOLA KOS

ELRN

CCPP 1

CCPP 2

CCPP 3

CCPP 4
IMOLA WS

LRI: formal retrieval and visualization system

Definition of messaging and communication model

Land Registers: Interface adaptation.
IMOLA KOS formal retrieval

IMOLA THESAURUS WEBSITE

Ownership
- Plural Ownership
- Co ownership
- Joint Ownership
- Individual Ownership
I. KOS dynamic reference information
Creating Ontologies

Ontologies as semantic representation
Proprietorship

• Given this definition: “Proprietorship” means full ownership related to real estates, notwithstanding in case of condominium of apartments, owners are subjected by important legal limitations, obligations and duties which condition the right of disposal, given the specific legal features of this special community.

• Terms: Proprietorship, full ownership, real states, condominium, apartments, legal limitation, right of disposal, obligations, duties.

• Each term will be related to each other by a specific relationship that ELRN Experts will identify, supported by trainings.
Conceptual Model: Thesaurus

A Thesaurus stores relational information regarding the terms in the vocabulary. "thesaurus" is derived from (thēsauros), literally "treasure store", generally meaning a collection of things which are of big importance or value (Wiki)

Used For:
- Retrieval purposes
- Representation normalization purposes
- Suggestion purposes (Decision support)
- “solution specific” purposes

![Diagram of Conceptual Model: Thesaurus]

- Ownership
  - Plural ownership
  - Individual
  - Joint Ownership
  - Co-ownership
- Proprietorship
  - Land registry Unit
- Land registry Unit
  - Folio real
  - Location Address
  - LR Identifier
- Ownership
  - Joint Ownership
  - Plural Ownership
- Restrictions of Disposal
- Matrimonial Economic Regime
- Legislation
- Supplementary information
- Certified information
- Encumbrances
- Mortgage
- Easement of Right
- Public Limitation
- Land holders
- Servant
- Dominant
- Emissions control
- Entitlement
Team up together

Many Thanks