



UN-GGIM
UNITED NATIONS
COMMITTEE OF EXPERTS ON
GLOBAL GEOSPATIAL
INFORMATION MANAGEMENT

Land Administration Domain Model (LADM, ISO 19152)

18/03/17

Peter van Oosterom, based on joint work with:
Chrit Lemmen, Harry Uitermark, and many others

UN-GGIM Expert Group on Land Administration and Management
Delft, 14-15 March 2017

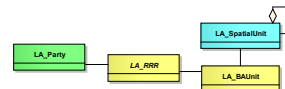


Delft
University of
Technology

Challenge the future

Motivation LADM

Reasons to apply LADM



- LADM collective experience of experts from many countries (FIG)
- LADM is based on consensus and adopted by ISO (and CEN)
- LADM allows meaningful data exchange: 1. within country, SDI-setting (other types of data), 2. between countries/states (same type)
- LADM covers complete land administration spectrum: survey, cadastral maps, rights, restrictions, responsibilities, mortgages, persons, etc.
- LADM focuses on information, not on process/organization aspect
- LADM is modular (packages) and extensible → country profiles
- LADM allows integrated 2D and 3D representation of spatial units
- LADM supports both formal and informal RRRs
- LADM links essential land information data to source documents, both spatial (survey) and legal (title, deed)

LADM compliance will seldom be main reason for new system in country
→ every system needs upgrades: consider becoming LADM compliant!

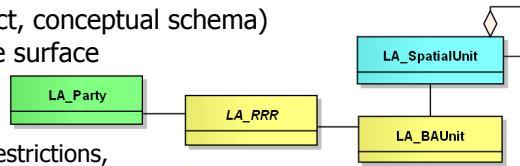


LADM

2

ISO 19152: 2012 (=LADM) Scope

- Reference model (abstract, conceptual schema)
- Land/water, below/above surface
- Basic classes:
 1. parties,
 2. rights, responsibilities, restrictions,
 3. spatial units (incl. spatial sources and spatial representations)
- Terminology enabling communication
- Shared description of formal or informal practices
- Basis for national & regional profiles (application schema)



INTERNATIONAL
STANDARD

ISO
19152

First edition
2012-12-01

INTERNATIONAL
STANDARD ISO
19152

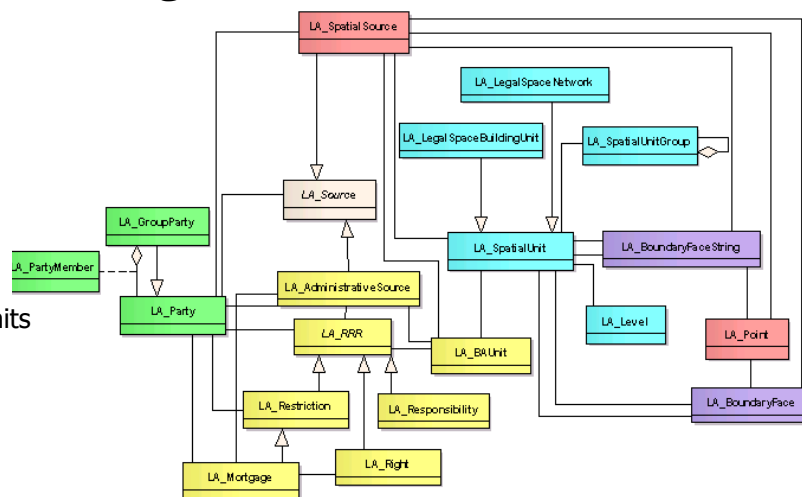
Geographic information — Land
Administration Domain Model (LADM)

Information géographique — Modèle du domaine de l'administration
des terres (LADM)

LADM 3

LADM Diagram

- Parties
→ green
- RRRs
→ yellow
- Spatial Units
→ blue
- Surveying
→ pink
- Mapping
→ violet



RRR supports
all land rights

LADM and external classes

- Determine scope LA
- Apply SDI thinking
- Link to external registrations:
 - Address
 - Party (person)
 - Valuation
 - Taxation
 - LandCover
 - LandUse
 - PhysicalNetwork (utility)
 - ...

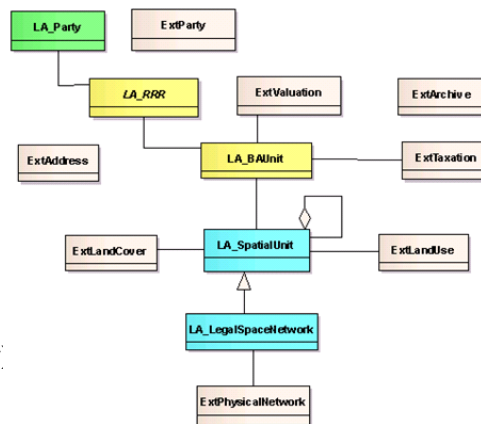


FIG LADM Governance Group



- Conclusion from 5th LADM Workshop (Kuala Lumpur, sept'13): Governance structure is needed.
- Proposal: LADM Governance within FIG to be led by the OICRF - the International Office of Cadastre and Land Records
- Members: ISO 19152 editors, Worldbank, UN Habitat, FAO, FIG comm 3+7, FIG Young surveyors, ...
- Activities of LADM governance group:
 1. maintenance of LADM in accordance to ISO requirements
 2. registry for various code lists (and web services for use)
 3. collect and disseminate best practices
 4. plan LADM related events (stand-alone or combined)
 5. check if system (model) is LADM conformant

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