



**CADASTRAL TEMPLATE 2.0 –  
REPORT 2016 / FOCUS ON CHAPTERS D AND E**


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[www.cadastraltemplate.org](http://www.cadastraltemplate.org) [www.cadastraltemplate.org](http://www.cadastraltemplate.org)

**Cadastral Template 2.0**  
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**Home Page**

The "Cadastral Template 2.0" has been developed by a research group at the Centre for SDIs and Land administration, Department of Infrastructure Engineering of the University of Melbourne and it was established under UN mandate by Resolution 4 of the 16th UN/ICC-AP in Okinawa, Japan in July 2003. It consisted of Professor Abbas Rajabfar, Dr. Daniel Steudler, and Professor Ian Williamson, supported by Professor Slog Greenark from Aalborg University, Denmark. PCGIAP-Working Group 3 "Cadastral" cooperates with FIG-Commission 7 to place the country information jointly on this website and to maintain the information during its 2003-2006 Work Plan.

**Participating countries**



**Field data:**  
The cadastral template is based on a raster of 17 data fields, which would need to be filled in according to its specific description. You can find that description in the [questionnaire](#).

**Username and password:**  
For filling in and updating country information, a username and password is required. Only one username and password is given out per country. Please contact Daniel Steudler@swisstopo.ch to get yours.

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## Structure

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### Part I: Descriptive Country Report

<b>A. Country Context</b>	Geographical Context / Historical Context / Current Political and Administrative Structures / Historical Outline of Cadastre
<b>B. Institutional Framework</b>	Government Organizations / Private Sector Involvement / Professional Organization or Association / Licensing / Education
<b>C. Cadastral System</b>	Purpose of Cadastral System / Types of Cadastral System / Cadastral Concept / Content of Cadastral System
<b>D. Cadastral Mapping</b>	Cadastral Map / Example of a Cadastral Map / Role of Cadastral Layer in SDI
<b>E. Reform Issues</b>	Cadastral Issues / Current Initiatives

### Part II: Indicators

<b>1. Cadastral Principles</b>	Deeds vs. title registration / registration compulsory or optional / systematic vs. sporadic registration
<b>2. Cadastral Statistics</b>	Population / no. of land parcels / no. of strata titles / degree of registration / no. of professional land surveyors and lawyers/solicitors

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## 53 countries (Oct. 2016)

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## Updates in 2016

[www.cadastraltemplate.org](http://www.cadastraltemplate.org)

(statistics as of 26 Oct. 2016)

### Update of contact person in 2016

Malaysia	2016-03-02
Colombia	2016-06-02
South Korea	2016-07-12
Switzerland	2016-07-29
Spain	2016-09-04
Iceland	2016-10-23
Canada	2016-10-25

### Countries in progress

Belarus
Canada
Spain



### Update of Section D in 2016

Malaysia	2016-03-02
Colombia	2016-06-02
Switzerland	2016-08-03
Finland	2016-09-21
Iceland	2016-10-23

### Update of section E in 2016

Malaysia	2016-03-02
Colombia	2016-06-02
Switzerland	2016-08-03
Finland	2016-09-21
Iceland	2016-10-23

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## Colombia updates in 2016

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### D.1 Cadastral Map

- the Agustín Codazzi Geographic Institute has a portal that can be used as a tool to facilitate access to land information
- the cadastral map is interactive, it includes surface images of the Colombian territory, and tools for consulting and geographically identifying properties through cadastral certificates, real estate registration or simply by address

### D.3 Role of Cadastral Layer in SDI

- The Spatial Data Infrastructure for the Capital District - IDECA, is defined as the set of data, standards, policies, technologies and institutional arrangements that integrated and sustained manner, facilitate the production, availability and access to geographic information Capital District in order to support their social, economic and environmental development.

### E.1 Cadastral Issues

- outdated cadaster
- land restitution in Colombia
- inefficient tax collection

### E.2 Current Initiatives

- governance of rural land
- "the new public land policy"



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## Finland updates in 2016

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### D.3 Role of Cadastral data inSDI

Due to improved technical possibilities the utilization of cadastral data is increasing. It is possible to get access to the map and the attribute data online with LIS Web browser service, with Cadastral and Land register statement service ([https/pdf](https://pdf)), with data request services (WFS and REST) and with data service by order. The cadastral data together with a topographic map is utilized in regional planning, utility planning etc. These activities are carried out on local and national levels.

### E.1 Cadastral Issues

A standard transaction (title) to a basic property unit or unseparated area is a fast process, but subdivision (parcelling out) takes 5.4 months on average.

There are 76 updating organizations in the cadastre and the quality of data is to be defined and harmonized. The data has been produced during a long period of time.

As information about all the servitudes (rights of way) are not included in the cadastre; some archive studies are often needed.

## Iceland updates in 2016

[www.cadastraltemplate.org](http://www.cadastraltemplate.org)

### D.1 Cadastral Map

- an official cadastral index map is now available for all of Iceland
- the same data is also accessible through ELF services
- Registers Iceland published in 2015 guidelines to standardise the content of cadastral survey documents.

### D.3 Role of Cadastral Layer in SDI

The cadastral map data was published freely available as an open source data in spring 2016



### E.1 Cadastral Issues

- Reform on legislation and regulation. No cadastral law is in place in Iceland
- Cadastral mapping – collecting boundary data
- Data sharing – distribution of cadastral data

### E.2 Current Initiatives

working on points 1 and 2 mentioned above



## Malaysia updates in 2016

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### D1 - Cadastral Map

- based on the geocentric Cassini-Solder Coordinate System and each State has its own origin and reference meridian resulting in a total of 9 different State coordinate systems
- used primarily for identification of land parcels for land management
- implementation of eKadaster system, commissioned in 2010.

### D.3 Role of Cadastral Layer in SDI

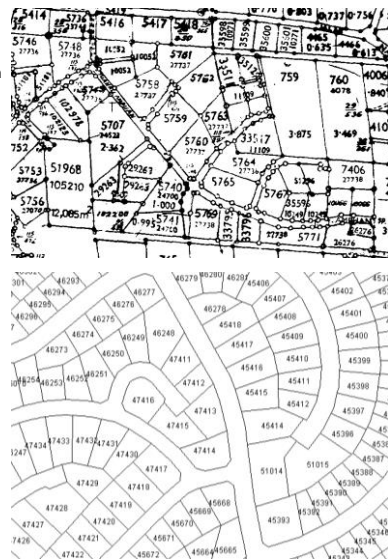
- Malaysia SDI (acronym MyGDI) formally established in 1997
- datasets obtained from the land related systems, or more specifically, the databases of agencies linked to MyGDI.
- cadastral layer is one of the main constituents of this base map.

### E.1 Cadastral Issues

- Existence of Different Coordinate Systems
- Legalising the NDCDB
- Complete Cadastre

### E.2 Current Initiatives

- Continuous survey quality monitoring
- Continuous enhancement of NDCDB
- Value Adding NDCDB
- Integration of eKadaster and CLRS
- Propagating Work in the Digital Environment



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## Switzerland updates in 2016

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### D.1 Cadastral Map

- digital cadastral data model consists of 11 information layers
- the layers "Land cover" and "Ownership" cover the whole territory in a complete way, i.e. without overlaps and without gaps
- the data model is described with the system independent description language INTERLIS

### D.3 Role of Cadastral Layer in SDI

- the data-modelling concept developed and used by the cadastral surveying system with INTERLIS has triggered the definition of more than 150 other spatial data domains by other SDI partners over the last 20 years

### E.1 Cadastral Issues

- full coverage of digital cadastral surveying data
- federative management

### E.2 Current Initiatives

- Integration of "Public-law restrictions" and "servitudes"
- Think Tank "Dimension Cadastre"
- DM.xx
- 3D, underground facilities



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## Belarus updates in 2016

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### D.1 Cadastral Map

- the cadastral map is the document of the United Register of Immovable Property, rights to it and transactions with them; it is conducted exclusively in digital form
- the cadastral map is formed by combination of vector digital map or orthophotomap with data of United Register of Administrative-territorial and Territorial Units of Belarus and United Register of Immovable Property, rights to it and transactions with them
- maintenance rules and accuracy of digital map is regulating by technical standards

### D.3 Role of Cadastral Layer in SDI

- cadastre maps are part of Spatial Data Infrastructure (SDI)
- example: cadastral map used as a SDI layer in multilevel corporate municipal GIS / cadastral map used in information systems of local authorities supporting administrative procedures of delivery of permissions to excavation

### E.1 Cadastral Issues

- the need to achieve a high data integrity and error correction in cadastre data bases.
- the need to achieve real time scale of reference in the central data bases.
- to achieve high quality services in the E-Government, including registration on the base of digital documents.
- to provide high coverage level and high data completeness for good property tax administration.

### E.2 Current Initiatives

- transition to real time cadastre and registry of rights;
- reduction of registration time for some administrative procedures to up to 1 hour;
- automatic registration in certain cases using an expert computer system;
- coordination with the ISO 19XXX standards, including ISO 19152 "Land Administrative Domain Model"
- transition to digital archives;
- reduction of operating costs by optimizing the structure;
- expansion of the quantity and quality of e-services
- mass immovable property formation and registration by using different methods including Remote Sensing.

## Canada updates in 2016

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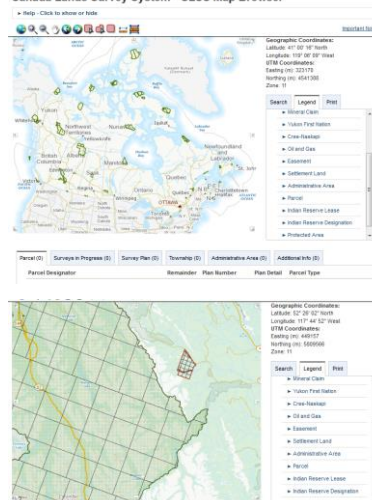
### D.1 Cadastral Map

- the federal government as well as most of the provinces and territories maintain a digital cadaster
- there is no nationwide cadastre that shows all the jurisdictional data in one area
- the Canada Lands digital cadastral data is updated every 24 hours

### D3 - Role of Cadastral Layer in SDI

- CLSS geospatial dataset is used as reference material
- the federal government datasets with geospatial representation of parcel and boundary information cannot be used for defining boundaries
- the federal government cadastral data is publicly available for download

#### Canada Lands Survey System - CLSS Map Browser



## Cadastral Template project

[www.cadastraltemplate.org](http://www.cadastraltemplate.org)

### Status

- 53 countries (+4 from last year)
- updating is on-going, however still slow (5 countries)
- content of value of information seems to be valuable
- mandate by University of Melbourne (Abbas Rajabifard and myself) ends by the end of the year 2016

### Issues

- infrastructure and process for the maintenance of the CT is still felt too heavy
- CT information is a great resource for FIG and it would be an asset to have the CT integrated into FIG.net website

### Aim of this annual meeting

- discussion and a clear statement by Commission 7 about the Cadastral Template and its future

### Further steps

- to check and discuss with University of Melbourne about their future plans
- to check and discuss with FIG about their future plans
- to come up with a concept/strategy about the future of the Cadastral Template