



LAUNCH OF CADASTRAL TEMPLATE 2.0

Dr. Daniel Steudler Scientific Associate, swisstopo

Prof. Abbas Rajabifard Director Centre for SDIs and
Land Administration, Melbourne University

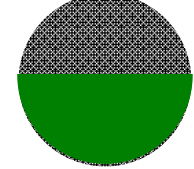
FIG-Commission 7, Annual Meeting 2014

Québec, Canada, 7-8 Oct. 2014



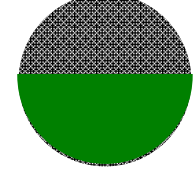
Schweizerische Eidgenossenschaft
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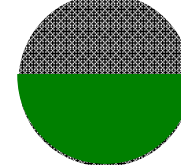
What is the Cadastral Template?

- Initiative: Permanent Committee on GIS Infrastructure for Asia-Pacific (PCGIAP), WG-Cadastre, under the leadership of Ian Williamson (Australia) and Ahmad Fauzi bin Nordin (Malaysia)
- Research Centre: University of Melbourne, Centre for Spatial Data Infrastructures and Land Administration (Ian Williamson, Abbas Rajabifard, Daniel Steudler, Stig Enemark)
- Launch at a workshop in July 2003 in Okinawa, Japan
- Intention at that time:
 - "to develop an appropriate **generic template** for country profile analyses describing the status of cadastre and land administration, and the need for improvements, which will facilitate benchmarking and the development of performance indicators".



Design Principles for the Template

- keep it simple in order to attract as many participants as possible
→ part I and II (descriptive and statistics)
- role of cadastre for SDI
- resource for lesson-learning from each other
- resource for developing best practice and performance indicators



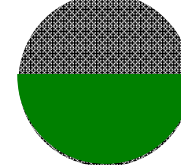
Structure

Part I: Descriptive Country Report

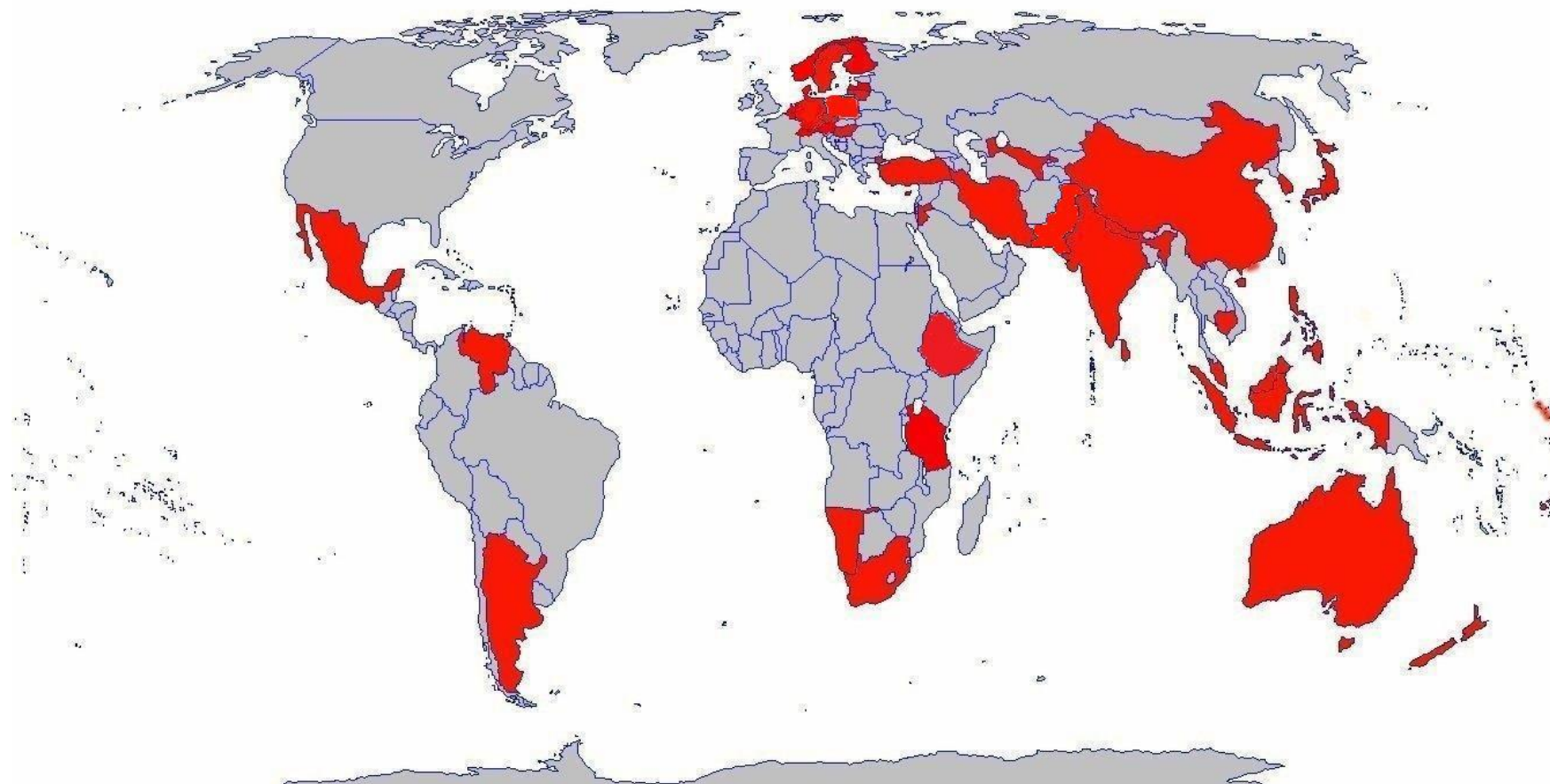
A. Country Context	Geographical Context / Historical Context / Current Political and Administrative Structures / Historical Outline of Cadastre
B. Institutional Framework	Government Organizations / Private Sector Involvement / Professional Organization or Association / Licensing / Education
C. Cadastral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

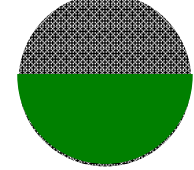
Part II: Questionnaire

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



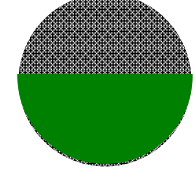
47 countries (June 2014)





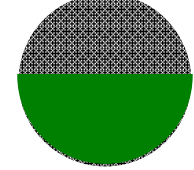
Issues

- soon after the initial workshop in 2003, it became difficult to get support and to get data from more countries
- in 2007, a request for updates provided replies from 3 countries out of 39
→ BUT: information seems to be of interest
- quality control
- there are no procedures in place for regular updates
- technical set-up of website is static, therefore difficult to maintain and to make updates
→ motto: not perfect, but better than nothing
- in May 2011: adaptation of website → no updating of .htm pages anymore, but instead a complete list of country reports and versions in .PDF and .DOC formats



Cadastral Template 2.0

<http://www.cadastraltemplate.org>



Supporting Actors

Project team

- Daniel Steudler, Abbas Rajabifard (Univ. of Melbourne), endorsed by FIG-President (for 3 years, until end of 2016)
- to look after the validation of new and updated information
- to further develop, maintain and promote the cadastral template

Developers

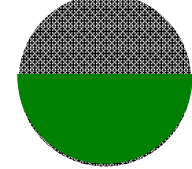
- team from CSDILA at the University of Melbourne

FIG Head Office

- to send out official requests for participation to its national member associations (e.g. when renewing membership)

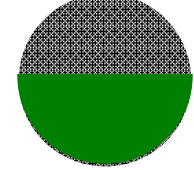
FIG-Commission 7

- to involve its delegates to contribute to the Cadastral Template



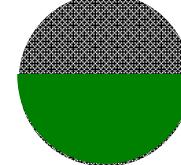
Technologies used

- **Database**
 - MySQL: to store and maintain cadastral data provided by the individual participants.
- **Back-end Technology**
 - PHP: a server-side scripting language to communicate and retrieve the data from the database.
- **Front-end Technology**
 - JavaScript: client-side scripts to interact with the user and visualised the retrieved data.
 - JQuery: to simplify the client-side scripting of HTML.
 - Datamaps: a SVG-based data maps using D3.js to provide some data visualisations based on geographical data.
 - D3.js: a JavaScript library that uses digital data to drive the creation and control of dynamic and interactive graphical form.
 - Google Chart API: A Google API to create charts from some data and embed it in a web page.



Cadastral Template 2.0

- **www.cadastraltemplate.org**
 - CT2.0 online since 6 Oct. 2014
 - previous version is still online at www.cadastraltemplate.org/version1.0/
- **country data**
 - previous country information has been transferred into new layout
 - graphics has not yet been transferred
- **updating**
 - by national delegates
 - based on username/password per country
 - periodic checking of updates by project team



Cadastral Template 2.0 – Home Page

Cadastral Template 2.0

[Home](#) | [Countries](#) | [Comparisons](#) | [Documents](#) | [About](#) |

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 UNRCC-AP in Okinawa, Japan in July 2003. It consisted of Professor Abbas Rajabifard, Dr. Daniel Steudler, and Professor Ian Williamson, supported by Professor Stig Enemark from Aalborg University, Denmark. PCGIAP-Working Group 3 "Cadastre" 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



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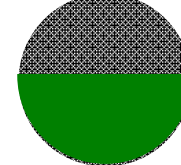


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Cadastral Template 2.0 – Index for country pages

Cadastral Template 2.0

[Home](#) | [Countries](#) | [Comparisons](#) | [Documents](#) | [About](#) |

Countries

Participating countries

Asia	Europe	Africa	North America	South America	Oceania
Brunei	Austria	Ethiopia	Mexico	Argentina	Australia
Cambodia	Belgium	Namibia		Venezuela	Fiji
China	Bulgaria	South Africa			Kiribati
Hong Kong	Cyprus	Tanzania			New Zealand
India	Czech				
Indonesia	Republic				
Iran	Denmark				
Israel	Finland				
Japan	Germany				
Jordan	Hungary				
South Korea	Latvia				
Macau	Lithuania				
Malaysia	Netherlands				
Nepal	Norway				
Pakistan	Poland				
Philippines	Slovenia				
Sri Lanka	Sweden				
Turkey	Switzerland				
Uzbekistan	UK				



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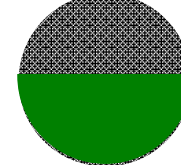
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Cadastral Template 2.0 – Comparison page

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Home | Countries | Comparisons | Documents | About |

Comparisons

Select Regions Select Countries

All Regions Select All Remove all selected countries

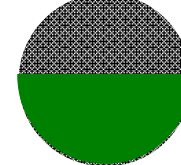
Selected countries are listed here:

Query: Select a Query

1.1 Type of registration system

Country	Type of registration system
Argentina	Dark Blue
Australia	Dark Blue
Austria	Dark Blue
Belgium	Dark Blue
Brunei	Dark Blue
Bulgaria	Dark Blue
Cambodia	Dark Blue
China	Dark Blue
Cyprus	Dark Blue
Czech Republic	Dark Blue
Denmark	Dark Blue
Ethiopia	Dark Blue
Fiji	Dark Blue
Finland	Dark Blue
Germany	Dark Blue
Greece	Dark Blue
Hungary	Dark Blue
India	Dark Blue
Indonesia	Dark Blue
Italy	Dark Blue
Japan	Dark Blue
Korea	Dark Blue
Malaysia	Dark Blue
Mexico	Dark Blue
New Zealand	Dark Blue
Norway	Dark Blue
Philippines	Dark Blue
Poland	Dark Blue
Portugal	Dark Blue
Romania	Dark Blue
Singapore	Dark Blue
South Africa	Dark Blue
South Korea	Dark Blue
Spain	Dark Blue
Sweden	Dark Blue
Switzerland	Dark Blue
Taiwan	Dark Blue
Thailand	Dark Blue
Turkey	Dark Blue
United Kingdom	Dark Blue
USA	Dark Blue
Brazil	Yellow
Canada	Yellow
Colombia	Yellow
Costa Rica	Yellow
Cuba	Yellow
Dominican Republic	Yellow
Ecuador	Yellow
El Salvador	Yellow
Guatemala	Yellow
Honduras	Yellow
Israel	Yellow
Kazakhstan	Yellow
Laos	Yellow
Lithuania	Yellow
Luxembourg	Yellow
Maldives	Yellow
Myanmar	Yellow
Nicaragua	Yellow
Panama	Yellow
Paraguay	Yellow
Peru	Yellow
Russia	Yellow
Serbia	Yellow
Sri Lanka	Yellow
Vietnam	Yellow
India (Green area)	Green

Logos: CSDILA, Swiss Confederation, The University of Melbourne, FIG



Cadastral Template 2.0 – Documents page

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[Home](#) | [Countries](#) | [Comparisons](#) | [Documents](#) | [About](#) |

Documents

Last modified on 01-Sep-2014

Questionnaire

- Questionnaire in English: [pdf \(155k\)](#) [doc \(233k\)](#)
Plantilla en Español: [pdf \(151k\)](#) [doc \(235k\)](#)
Questionário en Portugues: [pdf \(150k\)](#) [doc \(235k\)](#)

Publications

Stuedler, D., Williamson, I.P. and Rajabifard, A. (2004). Worldwide (GIM-International) Comparison of Cadastral Systems - A Cadastral Template. GIM-International, May, pp. 40-43.

Stuedler, D., Williamson, I.P., Rajabifard, A. and Enemark, S. (2004). The Cadastral Template Project. FIG-Working Week 2004, Athens, Greece, May 22-27, TS 1.2: Good Practice in Land Administration and Cadastre, 15p. [pdf \(305k\)](#)

Stuedler, D., Rajabifard, A. and Williamson, I.P. (2004). A worldwide comparison of cadastral systems. GIS Development, April. [htm](#)

Stuedler, D., Williamson, I.P. and Rajabifard, A. (2003). The Development of a Cadastral Template. Journal of Geospatial Engineering, Vol. 5, No.1 (June 2003), pp.39-47, Copyright © The [pdf \(51k\)](#)



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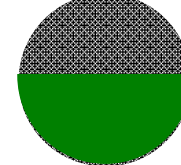


Administration fédérale des
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Cadastral Template 2.0 – About page

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Home | Countries | Comparisons | Documents | About |

About the Cadastral Template

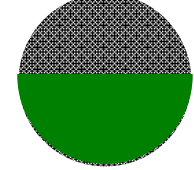
Last modified on 01-Sep-2014

Project Partners

Project Directors

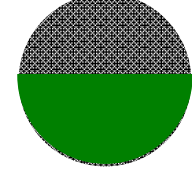
For providing or updating your country data, please contact:

Prof. Abbas Rajabifard	Dr. Daniel Stuedler
abbas.r@unimelb.edu.au	Daniel.Stuedler@swisstopo.ch



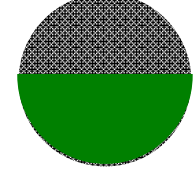
User issues

- in the "Contact" field, the spacing between lines might seem to be too large:
 - instead of using <return> at the end of a line, use <shift-return>
- when uploading illustrations, remove as much white space around the illustration as possible
- formatting of numbers → don't use any ' , . spaces or other characters; type in number as it is, for example "88098500"; when in viewing mode, the number will be formatted by the system, to i.e. "88,098,500"
- bear with us, we continuously try to improve and develop the website; we are of course very grateful for your hints
- don't hesitate to ask project and developing teams



Known issues to be looked at in near future

- to look at graphical web design issues, user friendliness
- to add the possibility to select/deselect single countries in the comparison section
- to improve colouring of countries in comparison section
- to add user instructions
- to add the possibility to indicate when a number is not available (→ n.a.)
- to enable the possibility to produce a country file in PDF format



Next steps

- FIG-Commission 7 delegates are asked to provide, check or update their country data (one username/password per country)
- get username/password from daniel.steudler@swisstopo.ch
- project team will improve the website continuously over the next few months, also based on your feedback

- project team will discuss with partner organizations to use infrastructure for other data collections in the cadastral field (e.g. EuroGeographics CLRKEN, PCC, WB-LGAF, FAO-VGGT, CoFLAS, ...)

see you at www.cadastraltemplate.org