

A Domain Model for Land Administration

By Rohan Bennett



On Thursday 5 July 2012 the *Land Administration Domain Model (LADM)* was successfully defended, that is, at least in an academic setting. The LADM is the main contribution of Christiaan (Chrit) Lemmen's PhD thesis: *A Domain Model for Land Administration*. The model is proposed as a reference tool for software design in the field of land administration. The thesis explores the background and drivers for LADM before launching into the 10 year development story. The various incarnations of LADM, including the *Social Tenure Domain Model (STDM)*, are explained and illustrated in all their UML glory. Examples from Cyprus, Honduras, and Portugal are used to provide a glimpse of a potential land administration future complete with LADM inspired implementations.

Christiaan is a long serving and well respected contributing editor of *GIM International*. He is also the Director of OICRE, the International Office of Cadastre and Land Records, is a senior geodetic advisor at Kadaster International with experience in more

than 25 countries worldwide, and currently acts as the chair of a Working Group on pro poor tools within the International Federation of Surveyors (FIG) Commission 7. With all these commitments it is little wonder that his defence attracted a



capacity crowd at TU Delft's Aula Theatre in the Netherlands. An 8-person panel composed of international experts in land administration, law, and computer science was at the heart of proceedings. The questioning was rigorous: the scientific merit, the design approach, and the early Netherlands-centric development process were put under the spotlight. However, after these intense discussions and subsequent panel meeting, Christiaan Lemmen was duly conferred his PhD, much to the delight of his promoters, Prof. Peter van Oosterom and Prof. Paul van der Molen.

An international workshop was held the following day at the Rotterdam offices of Netherlands Kadaster. The event was co-organised by the University of Twente's UNU School for Land Administration Studies and Netherlands Kadaster. A group of 30 participants from the Netherlands, Denmark, Greece, Cyprus, France, Portugal, Macedonia, India, United Kingdom, Australia, and others, heard of the lengthy, yet the near complete, process to institute the LADM as an ISO standard. Stay tuned for more on this front over the next few months. Meanwhile, software and technology vendors were also represented including Trimble, Thomson Reuters, and ESRI. Others discussions focused on: the global context for LADM implementation; the conceptual differences between LADM and STDM; the potential for LADM to support carbon markets and marine environments; the spatial aspects (including 3D) and legal challenges dealt with in LADM; and current plans to implement LADM-inspired solutions in Portugal and Cyprus.

Along with developments in 3D cadastres, and the acceptance of the continuum of land recording, the LADM represents perhaps the most significant technical development in land administration over the past decade. Whilst the model in itself provides a much sought after design standard, even more impressive has been its capacity to inspire collaboration, dialogue, shared understandings and general awareness amongst land administrators globally. The challenge now is to convince those outside the development process of the importance and utility of LADM in practical settings.

MORE INFORMATION

Lemmen, C.H.J., van Oosterom, P.J.M. (Promotor) and van der Molen, P. (Promotor) (2012) *A domain model for land administration*. PhD Thesis Technical University Delft ; summaries in English and Dutch. ITC Dissertation 210, ISBN: 978-90-77029-31-2.
http://www.gdmc.nl/efendel/Tmp/Christiaan_Lemmen_Dissertation_Final.pdf

