

## Status of the LADM standardization process



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# Introduction

- Procedural aspects of the standardization of LADM
- Editing team
  - Christiaan Lemmen
  - Peter van Oosterom
  - myself
- My role in the Editing Team
  1. Editing every version of the standard.
  2. Keeping track of comments and changes.

Ladies and gentlemen,

In this presentation, I will give an overview of

the procedural aspects of the standardization of LADM.

Christiaan Lemmen, Peter van Oosterom and myself,

constituted the 'editing team' of the LADM standardization,

which meant that Christiaan and Peter took the decisions regarding model changes,

and I documented these changes, in two ways, firstly,

in every version of the standard, and secondly in a 'comment log',

because most changes were proposed as official 'comments' by members of the LADM project team.

I myself am a surveyor from Delft University,

did a PhD research on data set integration

and worked, before I retired, many years for the Dutch Cadastre.

## Overview of Presentation

1. Start of LADM (2002 – 2006)
  - from Washington D.C. to Munich.
2. Start of Standardization (2006 - 2008)
  - preliminary talks within ISO/TC211
  - the players: FIG, ISO, TC211, UN-HABITAT
  - first proposal & voting.
3. How we did along the road (2008 – 2012)
  - NP, WD, CD, DIS, FDIS, IS...
4. Discussion.

This is an overview of my presentation.

First I will recapitulate the start of LADM, that is to say the period between Washington DC in 2002 and Munich in 2006.

Secondly, there is the start of the standardization:

the preliminary talks within ISO/TC211,

the players in the standardization field: FIG, ISO, TC211, and external parties like UN-HABITAT,

and the first proposal and voting.

Then, thirdly, the process itself, how we did along the road in the last four years,

NP, WD, CD, etc. all acronyms for ISO documents and stages.

Soon I will talk about these.

And finally, I will close with a discussion.

## **Start of LADM (2002-2006)**

<i>Version</i>	<i>Date</i>	<i>Location</i>
<b>Original idea</b>	<b>April 2002</b>	<b>Washington D.C., USA</b>
<b>0.1</b>	<b>September 2002</b>	<b>Noordwijk, The Netherlands</b>
<b>0.2</b>	<b>March 2003</b>	<b>Enschede, The Netherlands</b>
<b>0.3</b>	<b>September 2003</b>	<b>Brno, Czech Republic</b>
<b>0.4</b>	<b>December 2004</b>	<b>Bamberg, Germany</b>
<b>0.5</b>	<b>April 2005</b>	<b>Cairo, Egypt</b>
<b>0.6</b>	<b>March 2006</b>	<b>Moscow, Russian Federation</b>
<b>1.0</b>	<b>October 2006</b>	<b>Munich, Germany</b>

The start of LADM.

The original idea for a land administration standard was launched in April 2002 at the FIG Congress in Washington D.C..

Since then a LA domain model was developed incrementally.

Between 2002 and 2006 six versions were developed, discussed at the variety of locations,

with finally, in October 2006, a version 1.0,

presented at the FIG Congress in Munich, in Germany, under the name of 'FIG Core Cadastral Domain Model'

## **Start of Standardization (2006-2008)**

- Preliminary discussions between FIG and ISO/TC211 (2006-2007)
- The players (1)
  - FIG
    - represents the interests of surveyors worldwide
    - affiliated to ISO/TC211 as a *liaison organization*

Then, the standardization started.

First, in 2006 and 2007 there were preliminary discussions between FIG and ISO/Technical Committee 211 about standardization of LADM.

Let me give some attention to the players in the standardization field.

First there is FIG, the organization representing the interest of surveyors worldwide.

FIG is affiliated to TC211 of ISO as a so-called liaison organization.

## **Start of Standardization (2006-2008)**

- The players (2)
  - FIG
  - ISO/TC211
    - technical committee of ISO (more than 200)
    - scope: the field of digital geographic information
    - 34 member countries
    - published over 50 standards since 1994
    - works with the support of about 30 liaison organizations
  - JRC and UN-HABITAT

Next to FIG there is Technical Committee 211, TC211.

TC211 is one of the more than 200 technical committees of ISO.

The scope of TC211 is standardization in the field of digital geographic information.

It has 34 member countries

and has published over 50 standards since 1994.

TC 211 works with the support of about 30 liaison organizations, like FIG.

## **Start of Standardization (2006-2008)**

- The players (3)
  - FIG
  - ISO/TC211
  - JRC and UN-HABITAT
    - JRC, the Joint Research Centre of the European Commission
    - UN-HABITAT, the United Nations agency for human settlements

FIG acts as the principal body in LADM standardization, but there is also support and commitment from another liaison organization: JRC, the Joint Research Centre of the European Commission. Furthermore, there is also strong participation from UN-HABITAT, the United Nations agency for human settlements.

## **Start of Standardization (2006-2008)**

- LADM as a New Working Item Proposal (NP)
  - FIG *proposes* LADM as NP (February 2008)
  - decision by *voting* (May 2008)
  - *acceptance*
    1. a simple majority, and
    2. participation by at least five countries.

Now I start with the procedural aspects of ISO standardization.

FIG, as a liaison organization of TC211, is entitled to do a proposal for standardization.

This is known, in ISO language, as a New Working Item Proposal.

The decision to accept a new proposal is done by voting by the members of TC211,

and accepted if there is a simple majority, and there are at least five countries willing to participate.

FIG proposed LADM in February 2008...



## Start of Standardization (2006-2008)

- Result of voting (May 2008)
  - 15 'yes' over 6 'no'
  - 10 participants

	Yes	No	Participate?	Comments
Australia	X		N	
Austria	X		N	
Canada	X		Y	
China	X		Y	
Czech Republic	X		N	
Denmark	X		N	
Finland		X	N	X
Germany		X	Y	X
Italy	X		N	
Japan		X	N	X
Korea, Rep. of	X		N	
Netherlands		X	Y	X
New Zealand	X		Y	
Norway		X	N	X
Russian Fed.	X		N	
South Africa	X		N	
Spain	X		Y	X
Sweden		X	Y	X
Thailand	X		Y	
United Kingdom	X		Y	X
USA	X		Y	
Totals	15	6	10	(8)

... with a voting in May.

Here you see the result of the vote.

The proposal was approved with a majority of 15 over 6, with 10 countries willing to participate.

So the proposal was accepted...

## Start of Standardization (2006-2008)

- Result of voting (May 2008)
  - 15 'yes' over 6 'no'
  - 10 participants
- Negative votes
  - vote 'no', participate 'yes'
  - influence national legislation?

	Yes	No	Participate?	Comments
Australia	X		N	
Austria	X		N	
Canada	X		Y	
China	X		Y	
Czech Republic	X		N	
Denmark	X		N	
Finland		X	N	X
Germany		X	Y	X
Italy	X		N	
Japan		X	N	X
Korea, Rep. of	X		N	
Netherlands		X	Y	X
New Zealand	X		Y	
Norway		X	N	X
Russian Fed.	X		N	
South Africa	X		N	
Spain	X		Y	X
Sweden		X	Y	X
Thailand	X		Y	
United Kingdom	X		Y	X
USA	X		Y	
Totals	15	6	10	(8)

... but, it is interesting to look at the negative votes.

Six countries voted negative: five European countries and Japan.

Firstly, there is a certain contradiction in voting 'no' to the proposal and at the same time saying 'yes' to willing to participate, as was done by three countries.

For example, Sweden justified this behaviour by saying, that when many others are in favour of the proposal, Sweden is willing to contribute.

Secondly, the justification to vote negative concentrates on the issue whether domain models should be standardized (as was mentioned by Germany) and, if so, whether standardization interferes with national legislation (as was mentioned by Norway and The Netherlands).

The last point caused a thorough discussion on the applicability of LADM.

## How we did: *from WD to CD*

- A Project Team started...



From the moment of the acceptance of the proposal a project team started to work...

## How we did: *from WD to CD*

### Development track LADM

<i>Document</i>	<i>After approval NP</i>	<i>Target date</i>
NP → Working Draft (WD)	-	May 2008
Committee Draft (CD)	12 months	May 2009
Draft International Standard (DIS)	18 months	November 2009
Final DIS (FDIS)	30 months	November 2010
International Standard (IS)	36 months	May 2011

...with the following development track.

Along this track we had to prepare 5 documents.

The proposal became the working draft, and within 12 months the working draft had to be transformed into a committee draft, and so on.

After 36 month, that is after three years, the international standard should be there, that is in May 2011.

## How we did: *from WD to CD*

- Four meetings
  - Denmark (Copenhagen, May 2008): WD1
  - Netherlands (Delft, September 2008): WD2
  - Japan (Tsukuba, December 2008): WD3
  - Norway (Molde, May 2009): Committee Draft (CD)
- Consensus principle (“Consensus need not imply unanimity”)
- July 2009: CD submitted for approval

There were four meetings necessary to transform the proposal, known as the working draft, into a committee draft.

After long and thorough discussions in the project team, the decision was taken to circulate a Committee Draft for approval.

This decision is taken on the basis of the *consensus principle*, with consensus defined by ISO as: “General agreement, characterized by the absence of opposition to substantial issues and the reconciliation of conflicting arguments.”

With a note added: Consensus need not imply unanimity (u·na·nim·i·ty /joe:nenimmetie).

Based on this principle, in July 2009 a committee draft was submitted for approval.

## How we did: *from CD to DIS*

- Voting  
(October 2009)
  - 22 ‘yes’ to 3 ‘no’
  - 300 comments  
from 7 countries...

Member body	Approve	Disapprove	Comments
Australia	X		X
Austria	X		
Canada	X		X
China	X		X
Denmark	X		
Ecuador	X		
Finland		X	X
France		X	
Germany	X		
Hungary	X		
Japan	X		X
Korea, Rep. of	X		
Malaysia	X		
Morocco	X		
Netherlands	X		
Norway	X		
Russian Fed.	X		
Saudi Arabia	X		
South Africa	X		
Spain	X		
Sweden	X		X
Switzerland		X	
Thailand	X		
UK	X		X
USA	X		
Summary	22	3	(7)

There was a voting in October 2009.

The outcome of the voting is summarized here.

With a comfortable 22-to-3 majority there seemed a ‘general agreement’ to circulate a Draft International Standard, the next stage.

But there were also 300 comments from seven countries...

## **How we did: *from CD to DIS***

- Resolving comments and negative votes
  - meeting in Canada (November 2009)
- New text for DIS (March 2010)
- Objections from 4 countries (Canada, Finland, France and Japan)!
- “Text for DIS lacked completeness and thoroughness”
- What to do?

How to deal with these comments and negative votes?

We wanted to make every attempt to resolve comments and negative votes. Therefore, it was decided to meet again in November 2009, this time in Canada.

As a result of the discussions in Canada, a new text for the draft international standard was submitted in March 2010. According to ISO directives, countries can object to enter the next stage.

And there were objections!

In April 2010, four countries, Canada, Finland, France and Japan, all present in the Project Team, did not approve for entering the next stage.

“The text for DIS lacked completeness and thoroughness”, was one of the comments.

What to do?

Had we to start all over again?

## **How we did: *from CD to DIS***

- Plenary meeting TC211 (May 2010)
- Resolution 500
  - to amend the text for Draft IS, in cooperation with the project team, and to implement the changes required by the comments submitted
- Resolution 500 approved
  - Finland voting against, and
  - Japan abstaining from voting...

A month later, in May 2010, Technical Committee 211 had a plenary meeting in Southampton.

There it was proposed, in Resolution 500, to amend the text for Draft International Standard,

in cooperation with the project team, and to implement the changes required by the comments submitted.

This resolution was approved by the meeting, with Finland voting against, and Japan abstaining from voting...



## How we did: *from CD to DIS*

- Re-start & Delay
- A third text for DIS
  - submitted in January 2011, for a 5-month vote
  - approved in June 2011: 26 ‘yes’ to 2 ‘no’
  - with an avalanche of 400 comments!

Country	Approve	Disapprove	Comments
Austria	X		
Canada		X	X
China	X		
Czech Republic	X		
Denmark	X		X
Ecuador	X		
Finland		X	X
France	X		X
Germany	X		X
Hungary	X		
Italy	X		
Japan	X		X
Korea, Republic of	X		X
Malaysia	X		
Morocco	X		
Netherlands	X		
New Zealand	X		
Norway	X		
Poland	X		
Portugal	X		
Russian Federation	X		
Saudi Arabia	X		
Serbia	X		
South Africa	X		X
Spain	X		
Sweden	X		X
Thailand	X		
Turkey	X		
United Kingdom	X		
USA	X		X
TOTALS	26	2	(10)

With the execution of Resolution 500, we had a re-start, and a big delay in the development track.

The comments had to be resolved and a third text for DIS had to be prepared. A new text for DIS was submitted in January 2011, for a 5-month vote.

The outcome of the voting in June 2011 was very favourable.

The DIS was approved, with 26 votes in favour and two negative votes from Canada and Finland.

And an avalanche (av-a-lanche /evvela:ntsj) of 400 comments from 10 countries...

There seemed no end to it....

## **How we did: *from DIS to FDIS***

- 400 comments were resolved
- Two reactions back, from Canada and Finland, the 'no-voters'.
- FDIS was sent in November 2011 to ISO/TC211
- Submitted in May 2012 to the ISO secretariat

Now we entered the next stage, the Final Draft International Standard. We had to resolve the 400 comments and distribute them among the project team.

We got only two reactions back, from Canada and Finland, the 'no-voters'. Was everybody exhausted by now?

In November 2011, the text for the Final Draft was sent to TC211, and after restructuring, with a big delay submitted in May 2012 to the ISO secretariat.

Well, so far this is history...

## **How we did: *from FDIS to IS***

- The ISO secretariat will distribute the FDIS around July 29, 2012 for a 2 month vote
- On top of the 2 month vote period, is a 3 month period for translation and ballot preparation
- Assuming a positive response, LADM will be ISO19152 before the end of 2012!

... and this is the future:

The ISO secretariat will distribute the Final Draft for a 2 month vote, most probably around coming July 29.

On top of the 2 month vote period, there is a 3 month period for translation and ballot preparation, and

assuming a positive response, LADM will be an International Standard, labelled ISO 19152, before the end of this year!

## Discussion

- Six year period of preparation (2002-2008)
- In May 2008, the starting document got a simple majority
- Development track of 36 months: International Standard (IS) in May 2011!
- Why is there still no IS?

To start a discussion I will summarize the start-up phase:

The standardization of LADM started after a six year period of preparation.

In May 2008, the starting document got a simple majority, and a development track of 36 months.

With 36 months, there could have been a Standard in May 2011.

Why is there still no Standard?

## Discussion

Two reasons:

1. The members of the editing team (Christiaan Lemmen, Peter van Oosterom and myself) were absolute beginners in the field of ISO standardization.
2. We did every attempt to resolve comments and negative votes, with the danger that we “tried to please everybody”.

Let me speculate about at least two reasons.

Firstly, the members of the editing team (Christiaan, Peter and myself) were absolute beginners in the field of ISO standardization.

This meant that we had no experience with procedures, documents, stages. Nor were we familiar with the rules for structuring ISO documents.

Secondly, more important, we did every attempt to resolve comments and negative votes, with the danger that we “tried to please everybody”, with undesired side-effects, because pleasing one country might result in displeasing another country.

## Discussion

- The number of comments grew along the development track...
  - CD: 295 comments (92% accepted)
  - DIS: 398 comments (86% accepted)
- Redundancy of information in text, figures and UML-model contribute to the number of comments?
- More than 800 comments > quite cumbersome to manage...

It is remarkable how the number of comments grew along the development track:

from about 300 comments for the Committee Draft  
to about 400 comments for the Draft International Standard.

Of course, many comments were relevant, and accepted.

Part of the “booming” of comments may be  
the redundancy of information in text, figures and UML-model.

All in all we had to deal with more than 800 comments,  
which is, from an editorial point of view, quite cumbersome to manage...

***Thank you.***

Let me finish with saying that happily, all these comments are all over now.  
With the coming vote, a country may not submit comments anymore.

It is out of our hands.

Lets await in confidence the final voting shortly.

Thank you.