Issues Related to Boundary Mapping in Ireland (5390)

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www.tfpb.ie

Law Reform Commission requested the Law Society for their vision of eConveyancing - Task Force established & 3 years to publish eVision which contained radical proposals for change

- Move from ‘Caveat Emptor’ to ‘seller disclosure’ for property transactions - responsibility now on vendor
- Land Registry should contain titles of all land in the State and all the interests to that land
  - Registration of all lands currently in RoD to be transferred to LR & close RoD
  - No interest should affect title unless it is registered (no exemptions?) - Title should be definitive, conclusive & all encompassing
- eConveyancing System = Electronic Hub, so professionals need to have confidence in reliability of information supplied by system
IPTFPB

- Irish Institution of Surveyors (IIS) established a Commission on Land Registration in 2006 to investigate & report on issues related to boundary mapping in Ireland
- IIS Green Paper (2008) essentially stated that:
  - Non-conclusive boundaries are not reliable enough for eConveyancing - property professionals are not confident in reliability of official mapping data
  - Boundaries need to be properly defined and registered as conclusive to supply reliability required for eConveyancing
  - Registration of conclusive boundaries is permitted under existing legislation
  - Proposed gradual approach over decades for migration towards conclusive boundaries

IIS viewed Law Society eVision & IIS Green Paper as complementary, one dealing with information in the folios and the other dealing with information in the mapping
- IIS considered that mapping solutions could not be developed in isolation by surveyors, so needed to involve wider participation for acceptance
- IIS met with members of Law Society eConveyancing Task Force to discuss proposal to establish an Inter-Professional Task Force on Property Boundaries (IPTFPB)
- IPTFPB established in April 2009 - slower progress than initially anticipated, but have now developed a good working relationship with other participants & work now speeding up
Presentations by each professional body to identify issues relating to boundary mapping which were of concern from their own perspective.

Colloquium in November 2009 to widen debate and assess if concerns already identified were valid - found that issues were more prevalent than expected, and the investigation was fully vindicated.

Website created at www.tfpb.ie & conducted survey on “Issues Related to Boundary Mapping in Ireland”

Series of CPD workshops during March & April 2011 to present survey results and discuss preliminary proposals for solutions.

Discussions with stakeholders (PRA, OSI, NAMA, Banks, Law Reform Commission & government) about proposed solutions & need for change.

Final report expected by the end of 2011.

Survey was developed iteratively during spring 2010 and piloted first by members of the Task Force and then by a select group of professionals to ensure questions were understood and the questionnaire was viable.

Survey conducted in two periods from 20th June to 10th September 2010 and then again from 25th January to 30th March 2011 because insufficient responses were received during the first period to ensure sample sizes were representative for each professional group.

Minimum sample sizes were computed using a tool on the Relevant Insights website at www.relevantinsights.com/research-tools to ensure the results had a confidence level of 90% with a margin of error of +/- 10%.
Responses Received

<table>
<thead>
<tr>
<th>Profession</th>
<th>Population Size</th>
<th>Required sample for +/-10% Error Margin</th>
<th>Responses Received</th>
<th>Sampling Error to Date</th>
<th>Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Surveyors</td>
<td>375</td>
<td>57</td>
<td>65</td>
<td>+/- 9.3%</td>
<td>17.3%</td>
</tr>
<tr>
<td>Solicitors</td>
<td>7,500</td>
<td>67</td>
<td>105</td>
<td>+/- 8.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Engineers*</td>
<td>400</td>
<td>58</td>
<td>46</td>
<td>+/- 11.5%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Architects</td>
<td>2,415</td>
<td>66</td>
<td>55</td>
<td>+/- 11.1%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Spatial Planners</td>
<td>700</td>
<td>62</td>
<td>39</td>
<td>+/- 13.0%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Barristers</td>
<td>2000</td>
<td>65</td>
<td>1</td>
<td></td>
<td>0.05%</td>
</tr>
<tr>
<td>GIS Analysts</td>
<td>?</td>
<td>?</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>?</td>
<td>?</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>323</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

# Other 2.8%

- Spatial Planner 12.1%
- Engineer 14.3%
- Architect 17.1%
- Land Surveyor 20.2%
- Solicitor 32.6%
- Other 2.8%
- Barrister, GIS Analyst & GIS Coordinator 0.03%
Must be careful to state that these results represent Property Professionals and not the general public.

Good geographical distribution of responses from all areas of the country, but County Longford is missing?

Responses from Northern Ireland are conspicuously absent except for County Derry (other 5 Counties are missing).

Quantitative Results

- Surprising (alarming?) result that over a quarter of professionals (27.7%) were not aware that property boundaries registered in the Land Registry or in the Registry of Deeds are non-conclusive and are not guaranteed by the State.

- Striking finding of the high percentage of professionals (78%) who recorded having difficulties with existing boundary mapping. Prior to the survey a figure of 25% to 30% would have been considered as high, but an average of 78% suggests a much deeper problem.
Incidence of Boundary Mapping Issues Encountered

<table>
<thead>
<tr>
<th>Have you encountered any of the following boundary mapping issues?</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Boundary disputes resulting from mapping issues?</td>
<td>87.3%</td>
<td>11.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td>b) Difficulty establishing a boundary on the ground using a Title map?</td>
<td>99.8%</td>
<td>0.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>c) Difficulty resolving a boundary survey with a Title map?</td>
<td>83.7%</td>
<td>12.8%</td>
<td>3.5%</td>
</tr>
<tr>
<td>d) Inconsistency between areas on Title maps and areas as measured on the ground?</td>
<td>91.7%</td>
<td>5.4%</td>
<td>2.9%</td>
</tr>
<tr>
<td>e) Difficulty resolving Rights of Way and or Easements on Title maps and Rights of Way and or Easements on the ground?</td>
<td>67.8%</td>
<td>25.7%</td>
<td>6.5%</td>
</tr>
<tr>
<td>f) Differences between two adjoining Title maps? (gaps or overlaps)</td>
<td>72.8%</td>
<td>24.3%</td>
<td>2.9%</td>
</tr>
<tr>
<td>g) Differences between two Title maps for the same property?</td>
<td>52.4%</td>
<td>45.0%</td>
<td>2.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>78.2%</td>
<td>18.7%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

On what proportion of your transactions would you encounter these boundary mapping issues?

- 2.5% - 10 Transactions
- 3.2% - 9 Transactions
- 5.7% - 6 Transactions
- 6.0% - 5 Transactions
- 9.8% - 4 Transactions
- 14.2% - 3 Transactions
- 21.2% - 2 Transactions
- 32.0% - 1 Transaction
Results indicate a significant appetite for change

<table>
<thead>
<tr>
<th>What information is currently not included in this map that you like to be included?</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Title boundaries (line of registered boundaries)?</td>
<td>87.4%</td>
<td>3.9%</td>
<td>8.7%</td>
</tr>
<tr>
<td>b) Physical features (including annotation of type)?</td>
<td>85.0%</td>
<td>5.1%</td>
<td>9.8%</td>
</tr>
<tr>
<td>c) Occupation line (current limit of occupation)?</td>
<td>67.2%</td>
<td>18.6%</td>
<td>14.1%</td>
</tr>
<tr>
<td>d) Legal boundary (the intentions of the parties)</td>
<td>89.4%</td>
<td>4.3%</td>
<td>6.4%</td>
</tr>
<tr>
<td>e) Land area (extent) of property?</td>
<td>86.6%</td>
<td>6.9%</td>
<td>6.5%</td>
</tr>
<tr>
<td>f) Dimensions and coordinates?</td>
<td>91.4%</td>
<td>4.1%</td>
<td>4.5%</td>
</tr>
<tr>
<td>g) Rights of way and easements?</td>
<td>94.2%</td>
<td>2.1%</td>
<td>3.7%</td>
</tr>
<tr>
<td>h) Other? (please specify below)</td>
<td>32.3%</td>
<td>9.2%</td>
<td>58.5%</td>
</tr>
<tr>
<td>Overall Result</td>
<td>84.5%</td>
<td>6.1%</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

- 65% of professionals stated that they were concerned with certifying Certificates or Declarations of Identity for title maps which are based on non-conclusive maps.
- If the State Agencies supplying these official maps do not accept the risk relating to them, why should property professionals be required to accept this risk? Essentially, property professionals are using their professional indemnity insurance to mitigate the additional risks involved.
In your analysis of boundary mapping issues, which maps do you currently rely on?

- Modern GPS
  - Accuracy
- Legacy
  - Accuracy
- Title Maps
  - 59.47%
- Boundary maps
  - 9.58%
- Topographic maps
  - 23.00%
- Do not know
  - 8.95%

Qualitative Results - Analysis Methodology

<table>
<thead>
<tr>
<th>Stage</th>
<th>Tasks Performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Create a report from <a href="http://www.surveygizmo.com">www.surveygizmo.com</a> of all the responses which included tables and charts of the quantitative results.</td>
</tr>
<tr>
<td>2</td>
<td>Create reports from <a href="http://www.surveygizmo.com">www.surveygizmo.com</a> for each profession using filters available, extract qualitative responses into word, colour code for each professional group, and combine groups into one document.</td>
</tr>
<tr>
<td>3</td>
<td>Initial classification of answers into a) Advocating Change, b) Neutral to Change, or c) Not Advocating Change.</td>
</tr>
</tbody>
</table>
| 4     | Secondary classification of qualitative data into main categories, such as:  
  a) OSM Mapping  
  b) PRA Map - Issues already completed  
  c) PRA map - Accuracy Issues  
  d) PRA Map - Rectification  
  e) Declarations/Certificates of Identity |
| 5     | Identification of issues from within each main category. |
| 6     | Formulation of preliminary proposals to resolve main issues identified and prepare a 1 page summary for each issue setting out a) Current Procedure, b) Difficulties being experienced, and c) Proposed Solutions |
| 7     | Host a series of CPD workshops to inform, discuss and collect feedback on the survey results and the solutions proposed. |
ACCESS TO PRA DIGITAL MAPPING

Current Procedure
- Digital vector maps are not supplied by PRA to property professionals to confirm boundaries
- Digital vector maps are supplied by PRA to public bodies (to comply with EU INSPIRE Directive?)
- Paper copies of maps originally submitted for registration are only supplied to the landowner or their solicitor

Current Difficulties
- Lack of access to digital vector maps:
  - Promotes inefficiency because it necessitates additional costs for clients (for scanning & geo-rectification)
  - Degrades accuracy of work carried out
  - Necessitates duplication if boundaries re-digitised in some cases

Proposed Solution
- PRA should provide access to their digital boundaries for property professionals, (via www.landdirect.ie)
- Access also necessary for:
  - Original maps submitted for registration
  - Previous versions of PRA maps in certain circumstances

RECTIFICATION OF BOUNDARIES

Current Procedure
- Boundaries can be corrected by Land Registry staff if a deed of rectification is submitted and accompanied by an agreement of neighbours to the correction
- Boundary corrections can also be ordered by the courts

Current Difficulties
- Boundary differences between older deeds and www.landdirect.ie has stimulated an examination of new digital boundaries
- Boundary movements will continue with updates of OSI mapping
- Deeds of rectification are expensive and prolonged, so many discrepancies found are not rectified

Proposed Solution
- Transparent & speedy new process required (inter-professional panel?) to rectify discrepancies found
- New PRA procedure required to proactively resolve obvious discrepancies
- State to bear cost of rectifying discrepancies from digital mapping project
## Areas of Properties

### Current Procedure
- Purchasers interested in area, because it gives a measure versus value
- Areas from PRA maps &folios are non-conclusive, so should use them with care
- Areas now provided to 3 decimals of a hectare for all properties in [www.landdirect.ie](http://www.landdirect.ie) (to comply with EU INSPIRE Directive?)

### Current Difficulties
- Areas on folios regularly do not correspond with areas supplied on [www.landdirect.ie](http://www.landdirect.ie) & these rarely correspond with areas from site surveys
- None of these areas are supplied to any identifiable standard
- Areas are derived from boundary coordinates
- Which area takes precedence?

### Proposed Solution
- For non-conclusive - OSI to a) improve absolute accuracy of boundary coordinates and b) re-institute means to identify features bounding area quoted
- Adopt standards for conclusive registrations to significantly improve boundary coordinates & areas

## Certificates (declarations) of Identity

### Current Procedure
- An additional legal document needed to minimise the risk to investment of financial institutions and certainty for purchasers because Land Registry map is non-conclusive
- That buildings & services are wholly confined within the registered title boundary and that the property has title to access a public road

### Current Difficulties
- Unrealistic expectation that a conclusive opinion can be based on non-conclusive data
- Significant difficulties in housing estates
- Certificates are transferring risk associated with non-conclusive boundaries from PRA & OSI to PI Insurance of property professionals

### Proposed Solution
- Procedure not standardised and resurveys are rare, so PRA map errors are perpetuated
- Establish a working group (LS, EI, IIS & RIAI) to develop a good practice procedure
Majority of Respondents Advocating Change

- 30 pages of comments from respondents (results to 28th February)
  - Advocating Change - pages 1 to 24
  - Neutral to Change - pages 24 to 29
  - Against Change - Page 30
  - Colour coded to identify from which professional group particular comments came from
  - Numbered for the question in which the comment was supplied to give context
  - Additional 40 responses received in March to be included yet

Sense of the Importance of Issues Advocating Change

- Comments on OSi maps - 1.5 pages
- Comments on PRA maps (issues already completed) - 2 pages
- Comments on PRA map accuracy - 4 pages
- Comments on PRA map scale - 1 page
- Comments on PRA map (areas) - ½ page
- Comments on Qualifications & Accreditation of Professionals preparing & submitting PRA maps - 2 pages
- Comments on PRA map (measurements, coordinates & monuments) - 1 page
- Comments on PRA map accessibility - ½ page
Sense of the Importance of Issues Advocating Change

- Comments on Rectification of PRA map - 1 page
- Comments on PRA map (easements, rights of way, etc) - 2 pages
- Comments on non-conclusive & conclusive boundaries - 3 pages
- Comments on PRA map (other issues) - 2 pages
- Comments on Certificates/Declarations of Identity - 3 pages
- Comments on Boundaries associated with Dynamic Features - ¼ page
- Comments on boundaries to the centre of the public road - ¼ page
- Comments on Multi Unit Developments - ¼ page
- Comments on Registry of Deeds - ¼ page

Thank you for your attention

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FIG Working Week 2011 in Marrakech, Morocco - “Bridging the Gap between Cultures” - 18-22 May 2011