Fit-for-future Land Administration with sustainable transformation

Paper 10746

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Imperative to change for the land authority

Megatrends

- Urbanisation
- Climate Change
- Globalisation

User expectations

- The Digital transformation
- Simplicity, transparency, ease of transactions
- Technology change

Demands on the Land Authority

- New markets
- Inclusivity
- Agenda 2030
Problems with current platform refresh approach

- Major events trigger major change
  - High risk of failure
  - Long delivery cycle with minimal benefit until the end
- Obsolete at point of delivery
- From one fixed state to another
  - Future change is constrained

Big Bangs – high risk / cost
Need to fundamentally rethink the approach

- Architect to enable change
- Multiple versions of workflows need to co-exist
- Multiple versions of the data models need to co-exist
- Move from a “mass data transformation” model to “Transform when needed”
Transform as Needed

Mass transformation is undesirable: it delays delivery and constrains your ability to deliver change.

Mass transformation should not be necessary: Transform as needed – record by record.

Mass transformation is wasted effort: Records will be transformed that will not transact for years.
Percentage of Titles actually transacted on

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last 20 years</td>
<td>70%</td>
</tr>
<tr>
<td>Last 15 years</td>
<td>56%</td>
</tr>
<tr>
<td>Last 10 years</td>
<td>40%</td>
</tr>
<tr>
<td>Last 5 years</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: HMLR Price Paid data, adjusted up to account for excluded entries; and ONS residential households data, adjusted down to account for unregistered titles.
Solution design needs

- Scan paper record
- Capture minimal data – e.g. an ID / address
- Survey and digitise geometry
- Codify and structure data
- For example: target LADM as a data model
- New requirements drive new data models
- 3D / BIM etc

Records using different data models co-exist and are accessible in the system

A “sliding window” of data schema versions
Solution design needs

- Move away from fixed relational models
- Consider Document based NoSQL databases
- Be aware: Generally poor spatial capability in NoSQL databases
- Visualisation needs to support all models; edit only for latest data model
Business value early, frequent change enabled

- Minimal data transformation delivers value early in the implementation process...
Business value early, frequent change enabled

- Minimal data transformation delivers value early in the implementation process…

- …then make the move to a structured model such as LADM

- Shift to a “Change as Usual” mindset
  - Enable new automation and citizen services with newer data models
  - …without mass data transformation

- Adopt “Transform as Needed” approach

- Focus background systematic transformation on records that are likely to transact.
Thank you

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