International code list management
- The case of Land Administration

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Scott Simmons, Jenny Paulsson and Christiaan Lemmen
### What is a code list?

<table>
<thead>
<tr>
<th>&lt;&lt; codeList &gt;&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice Cream::</td>
</tr>
<tr>
<td>IceCreamFlavour</td>
</tr>
<tr>
<td>+ Bacon</td>
</tr>
<tr>
<td>+ Bastani Sonnati</td>
</tr>
<tr>
<td>+ Black walnut</td>
</tr>
<tr>
<td>+ Blue moon</td>
</tr>
<tr>
<td>+ Cherry</td>
</tr>
<tr>
<td>+ Chocolate</td>
</tr>
<tr>
<td>+ Coconut milk</td>
</tr>
<tr>
<td>+ French vanilla</td>
</tr>
<tr>
<td>+ Grape</td>
</tr>
<tr>
<td>+ Mango</td>
</tr>
<tr>
<td>+ Mint</td>
</tr>
<tr>
<td>+ Pistachio</td>
</tr>
<tr>
<td>+ Stracciatella</td>
</tr>
<tr>
<td>+ Vanilla</td>
</tr>
</tbody>
</table>
Why code lists for land administration?
Terms are used everywhere, e.g. in the planning and building process

Anders Rydén,
www.lantmateriet.se
LADM: Administrative package
Right
"action, activity or class of actions that a system participant may perform on or using an associated resource”

Restriction
"formal or informal obligation to refrain from doing something”

Responsibility
"formal or informal obligation to do something”
Some RRR ...
(from Sweden, Ireland, Germany, the Netherlands and Portugal)

Possibility of reverter  
Easement  
B.P. right  
Freehold covenant  
Beschränkte persönliche Dienstbarkeiten  
Erbbaurecht  
Grunddienstbarkeit  
Gemensamhetsanläggningar  
Servidão de Estilicio  
Profít á pendre  
Wayleave  
Niessbrauch  
Erfdienstbaarheid  
Bearbetningskoncession  
Building lease  
Servitut  
Rentenschuld  
Right of entry or re-entry  
Vruchtgebruik  
Leasehold  
Emphyteusis  
Opstal  
Detaljplan  
Reallast  
Usufruct  
Lien  
Ownership  
Right of pre-emption
Figure J.4 — Code lists for LA

Figure J.1 — Code lists for Party Package
Many non-LADM code lists exist. Examples are:
<table>
<thead>
<tr>
<th>LADM Code Lists</th>
<th>LandInfra Code Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6.3.4 Party Package</strong></td>
<td><strong>7.2 Core</strong></td>
</tr>
<tr>
<td>LA_PartyRoleType</td>
<td>DocumentType</td>
</tr>
<tr>
<td>LA_GroupPartyType</td>
<td>ProfessionalType</td>
</tr>
<tr>
<td>LA_PartyType</td>
<td><strong>7.8 Survey</strong></td>
</tr>
<tr>
<td><strong>6.4.9 Administrative Package</strong></td>
<td>SurveyType</td>
</tr>
<tr>
<td>LA_AdministrativeSourceType</td>
<td>SurveyResultType</td>
</tr>
<tr>
<td>LA_MortgageType</td>
<td><strong>7.9 LandFeature</strong></td>
</tr>
<tr>
<td>LA_RightType</td>
<td>LandElementType</td>
</tr>
<tr>
<td>LA_RestrictionType</td>
<td><strong>7.10 LandDivision</strong></td>
</tr>
<tr>
<td>LA_ResponsibilityType</td>
<td>DimensionType</td>
</tr>
<tr>
<td>LA_AvailabilityStatusType</td>
<td>BasementType</td>
</tr>
<tr>
<td>LA_BAUUnitType</td>
<td></td>
</tr>
<tr>
<td><strong>6.5.8 Spatial Unit Package</strong></td>
<td></td>
</tr>
<tr>
<td>LA_BuildingUnitType</td>
<td></td>
</tr>
<tr>
<td>LA_AreaType</td>
<td></td>
</tr>
</tbody>
</table>
The OGC code list manifesto
Proposing four code list types or cases, based on ISO 19103:2015, GML 3.2.1 and GML 3.3

Case 0 (No list)
No list of values

Case 1 (Enumeration)
Complete (non-extensible) list of values

Case 2 (Union Type)
None or only a few of the allowed values. Other unique values can be added by the implementing body

Case 3 (Reference Type)
None or only a few of the allowed values. Unique values appear from URI-referenced list(s) provided by another body than the organization who issues the standard. Such body is dubbed an ‘external authority’
ISO standards related to different aspects of terminology


ISO 23185:2009 Assessment and benchmarking of terminological resources -- General concepts, principles and requirements.


ISO 26162:2012 Systems to manage terminology, knowledge and content -- Design, implementation and maintenance of terminology management systems.

ISO 22274:2013 Systems to manage terminology, knowledge and content -- Concept-related aspects for developing and internationalizing classification systems.


Who decides which codes and definitions to use?
A **joint** code list manifesto is needed!

For example:

*Draft Memorandum of Understanding*

[This draft is prepared as an academic exercise and does in no way imply the consent of the parties mentioned]

**Memorandum of Understanding**

between the signing parties:

International Organization for Standardization (ISO/TC 211),
Open Geospatial Consortium (OGC),
International Federation of Surveyors (FIG),
+ ???

concerning joint code list management

See appendix 1
Thank you!

Questions?