Open Spatial- what does it require?

- **Content** – fundamental Spatial Data Infrastructure
- **Platforms** – places where software runs, available functionality
- **Software** – libraries, widgets and code that operate across platforms
- **Licensing** – agreements for software and content and platform
SDI Continuum, 1\textsuperscript{st} and 2\textsuperscript{nd} generation content

1st Generation
Countries begin developing SDI anytime along the continuum

Continuum of SDI Development

Product-Based SDI development model
- Definition of data
- Collection of data
- Integration of data
- Database creation
- More implementation

Process-Based SDI development model
- Knowledge infrastructure
- Capacity building
- Communication
- Coordination

Open Source needs access to SDI

Platforms

gov platforms

SIX NSW

Landgate SLIP

Spatial Information eXchange

Google Australia

OpenStreetMap

Yahoo! Local Maps

The Free Wiki World Map

Land and Property Management Authority
Software

**Client-Side**
Rich Internet Applications
- Browser +
- Open libraries (RICO, OpenLayers)
- Open Interfaces eg OGC (WMS, WFS)
- AJAX, POX, JSON

**Server Side**
Services
- Open Interfaces eg OGC (WMS, WFS, WCS, KML, GeoRSS)
- REST
- SOAP/XML
- HTML
Licensing Frameworks

• Creative Commons
  – Attribution (for data such as share alike)

• Permissive free software license
  – Berkeley Software Distribution (BDS)
  – General Public License (GNU)

• Government Information Licensing Framework (GILF)

• Some Restrictive Licensing of PSI (for fee)
## Shifting paradigm

<table>
<thead>
<tr>
<th>Proprietary/locked</th>
<th>Communal/unlocked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed community</td>
<td>Open communities</td>
</tr>
<tr>
<td>Isolated</td>
<td>Collaborative</td>
</tr>
<tr>
<td>Derivative</td>
<td>Creative</td>
</tr>
<tr>
<td>Incremental change</td>
<td>Dynamic change</td>
</tr>
<tr>
<td>Producer driven</td>
<td>User driven</td>
</tr>
<tr>
<td>Data-supply</td>
<td>On demand, data-services</td>
</tr>
<tr>
<td>Complete package</td>
<td>Modular</td>
</tr>
<tr>
<td>Fixed, from the ground up</td>
<td>Leveragability, reuse</td>
</tr>
</tbody>
</table>
Gov 2.0 for spatial e-business

Gov 2.0

Geo Data
- Vector Data
- Raster Data
- Metadata
- Non-spatial

Web 2.0
- Software
- Content
- Platform
- Licensing

GeoWeb 2.0
- Rich Web Application
- Spatial Data Infrastructure
- GeoHub, eg SIX
- Agreements, Commons
Australian and New Zealand Public Sector Information

ANZLIC Metadata Tools and Guidelines

Australian Spatial Marketplace (ASM)

Australia and New Zealand Information Infrastructure (ANZii)

Cooperative Research Centre Spatial Information (CRC-SI)
Free and Open Source Community

Inventive solutions

Collaborative outcomes

Unlocking ideas

Future?
Open Source touch-points with Governments

Presentation/Visualisation
- Government provided viewers and/or
- APIs and software libraries to access Public Sector Information via Government Platform

Application/Software
- Widgets and portlets, Snippets of functionality
- Web Services (WSDL, Rest)

Data
- Data self service – web services, feature services, crop&ship
- Catalogues and CSW libraries to support search and discovery
- Fundamental-SDI (base map, street addresses, property, boundaries, points-of-interest)

Frameworks
- Licensing, agreements, partnerships, collaboration, spatial councils
Summary of issues

- Gov 2.0 – will see greater levels of open access to Public Sector Information. Web 2.0 frameworks.
- Citizen, business and government demand for Fundamental-SDI increasing
- Open Source requires access to Content – Spatial Information;
- Need private and public platforms – each have their place, national clearinghouses needed
- Transition to 2\textsuperscript{nd} Generation SDI – focus on information perspectives not on datasets
- National Broadband Network – faster communications
- New business models – virtual organisations, cloud partnerships, location intelligence, new thinking
Questions?