



Standards for Land Administration

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Delft. The Netherlands

'Open' Confusion

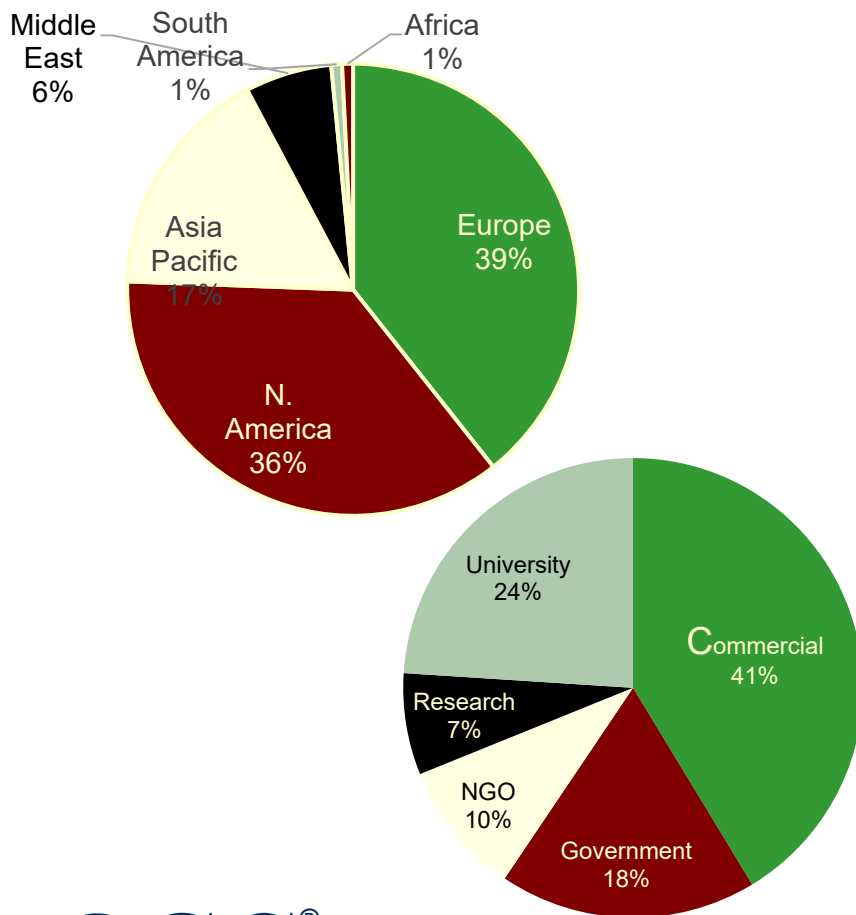


- Open Source, Open Standards, Open Data are all **different**
- **Open Source** refers to Software – with unrestricted sharing access to the source code, many are also Open Standard compliant, but it is not a requirement
- **Open Data** is the idea that some **data** should be publicly accessible to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control.
- **Open Standard** refers to rules, guidelines, frameworks for creating interoperability between servers, sensors, computers, etc both proprietary and open source software can use Open Standards and both open data and restricted data can use Open Standards.

The Open Geospatial Consortium

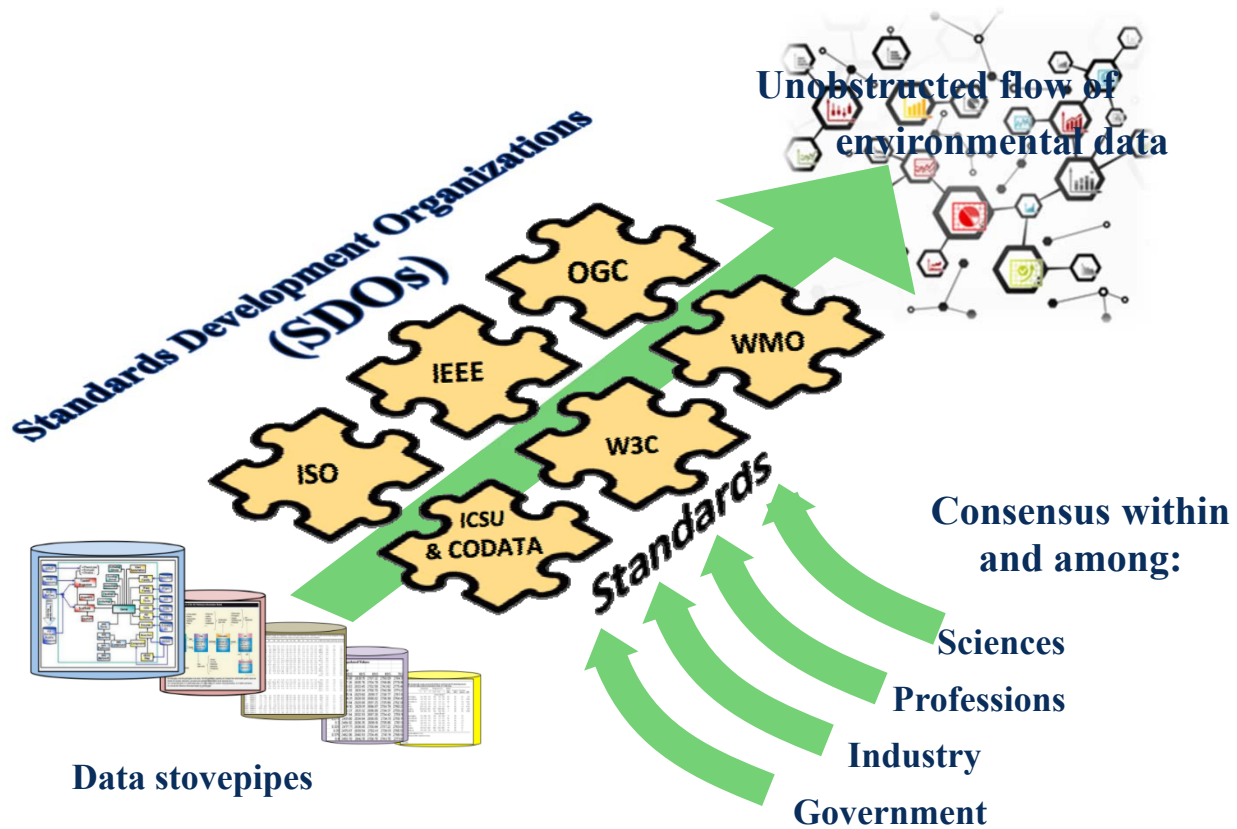


Not-for-profit, international voluntary consensus standards organization; leading development of geospatial standards



- 500+ industry, government, academic, research and NGO members worldwide
- Social and technical forum to align interests in standards and best practices
- 40+ freely available standards
- Supporting best practices
- Thousands of product implementations
- Broad user community implementation worldwide
- Alliances and collaborative activities with many SDOs and professional associations
- Established in 1994

Consensus standards are essential!



Work in Partnership



Formal joint work activities:

- W3C – Spatial Data on the Web (semantics & linked data)*
- ISO TC211 – Web Services Standards, LADM (PAS org)*
- BuildingSmart – BIM/IFC with CityGML
- ISPRS – Point Cloud Standards
- IHO – Marine S-100 series
- Who else for Land Administration? FIG?

*Permanent Joint Advisory Groups in both organisations

OGC Standards Consensus Program

Active Domain Working Groups in the OGC



<http://www.opengeospatial.org/projects/groups/wg>

- Hydrology
- Meteorology
- Oceanography
- Aviation
- Energy and Utilities
- Emergency & Disaster Management
- Defense & Intelligence
- Earth Systems Science
- Security
- Data Quality
- Big Data
- 3D Information Mgt
- Mass Market
- Public Safety & Law Enforcement
- Geosemantics
- Health
- Agriculture
- Urban Planning
- Land Administration
- Mobile Location Services
- Point Cloud
- Smart Cities



Mountain View CA, USA
December 2009



Bonn, Germany, March 2011

Land Administration Domain Working Group



- Purpose / Scope:
 - Examine existing systems of land administration;
 - Develop best practices regarding standards-based implementations;
 - Identify potential interoperability experiments, pilots and testbeds to validate interoperable solutions
- Emphasis on close coordination with partners in Land Administration
 - SDOs (ISO, OASIS, W3C, IHO etc.)
 - Associations (RICS, FIG, BuildingSmart, etc.)
- Open to OGC members and non-members

Practical Interoperability & Innovation

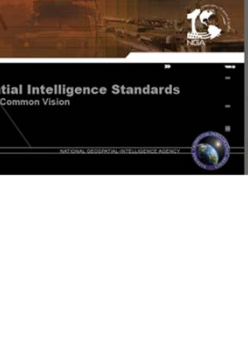
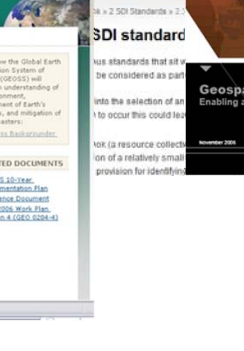
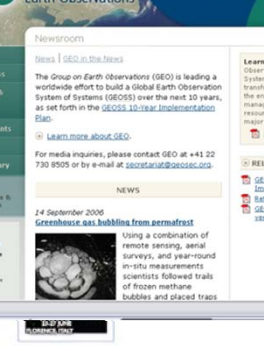
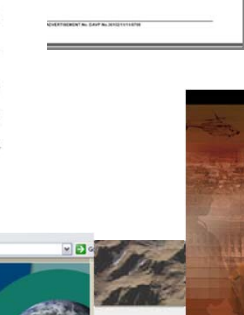
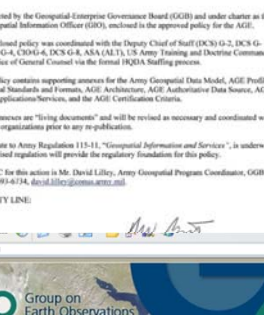
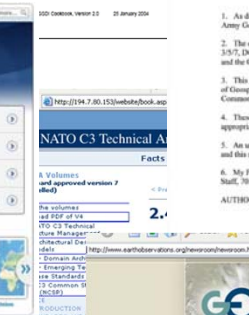
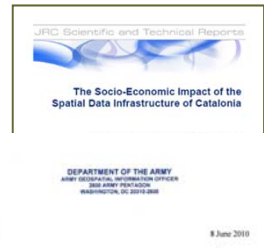
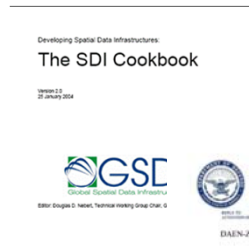
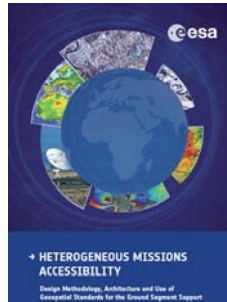


- Case Studies
- Pilots
- Testing
- Sharing
- Building together

*Eg. NYC & Singapore
Underground study,
Testbed 13, Future
Cities Pilot, ArcticSDP*



Key to Success: Geospatial Standards Policy



Compliance – Software Acquisition



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Additional For

Internal reference number of 1

OGC Compliance Overview - Guide for Software Acquisition

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A Guide to the Role of Standards in Geospatial Information Management

Prepared cooperatively by the
Open Geospatial Consortium (OGC);
The International Organization for Standards (ISO)
Technical Committee 211 Geographic information/Geomatics;
and the
International Hydrographic Organization (IHO).

July 2015



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Companion document on Standards
Recommendations by Tier

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Data is more valuable as
a shared resource



**Standards make this
sharing possible**



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Open Geospatial Consortium (OGC)



<http://www.youtube.com/user/ogcvideo>