



The Open Ecosystem; Open Standards, Open/Proprietary Technologies and Open Data

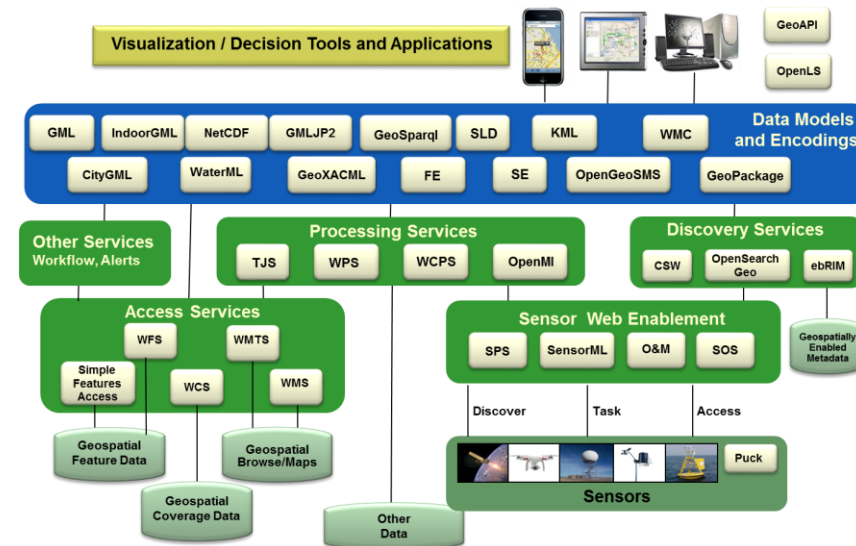
Trevor Taylor, Director,
Member Services, Asia and the Americas,
UN-GGIM HLF,
Mexico City, November 30, 2017



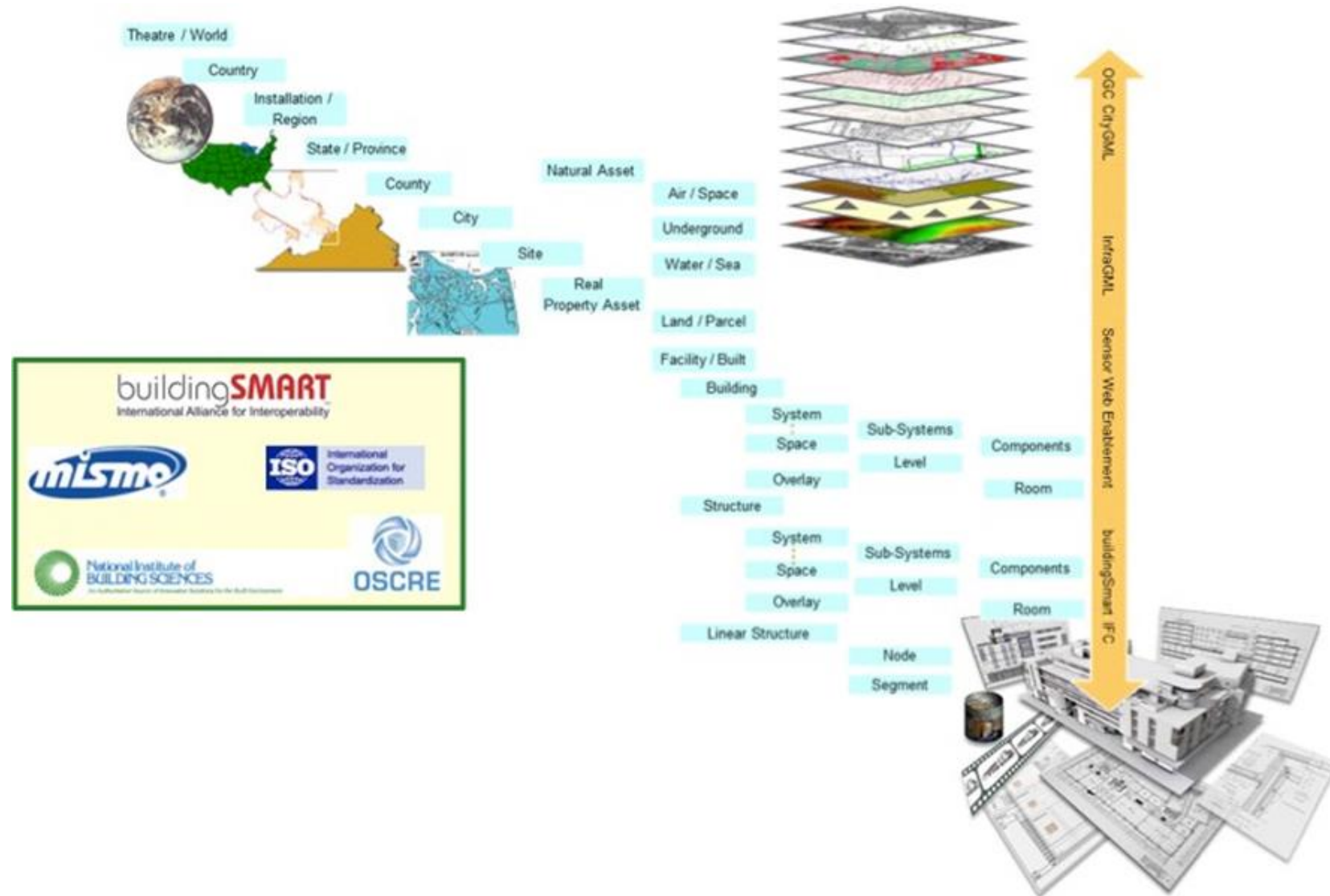
Quick Introduction to the OGC

- Not-for-profit, international consortium of 515+ industry, government, and university members
- Founded in 1994
- 40+ Geospatial Standards
- Work is based on collaboration and consensus!
- Liaisons with ISO, W3C, UN-GGIM, GEO.. and many more...
- Across many domains

The OGC Mission: Create and curate standards that are open and freely available to all

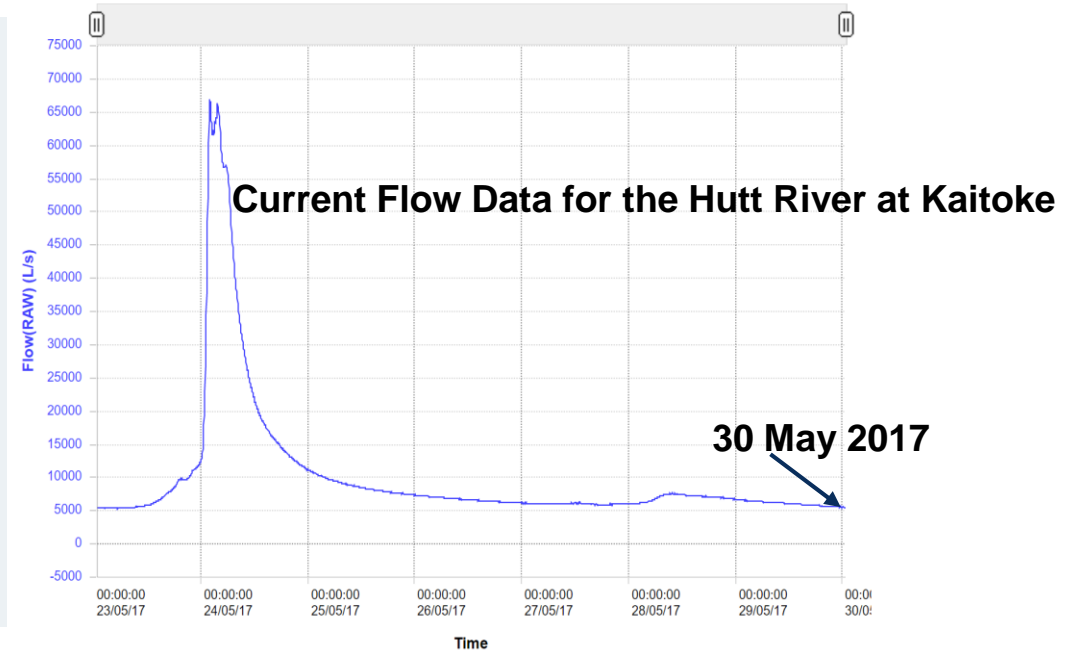
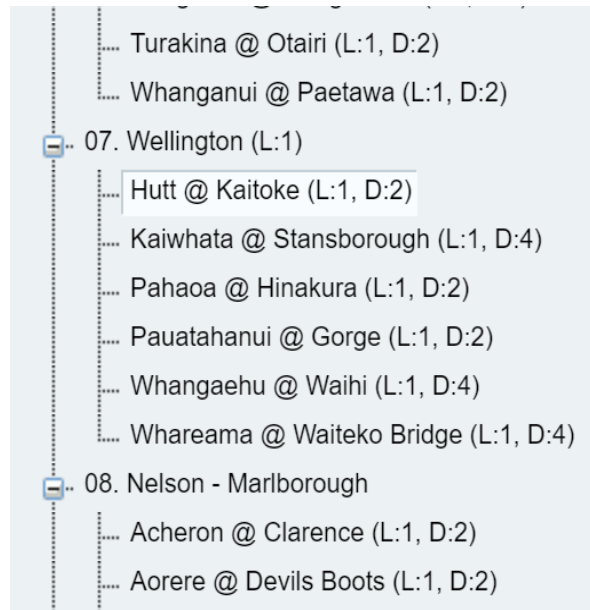
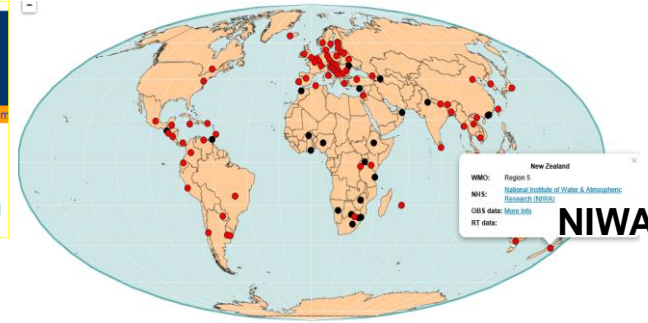
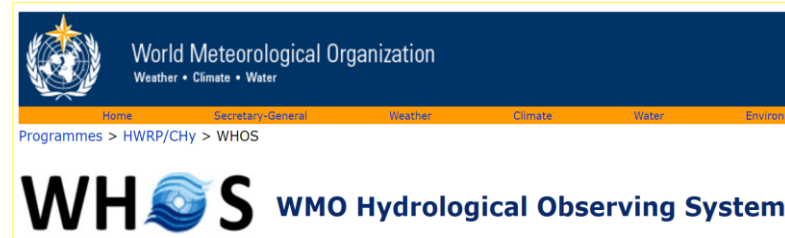


Local to Global





Local to Global - Water Data, New Zealand



The Term “Open” is Ubiquitous



- **Open standards , open and proprietary software and open data are all critical parts of successfully sharing geospatial information**
- **There is often confusion amongst of the above terms!**
- **Includes technology, policy and legal aspects**



**Open, Closed, Free,
Proprietary , Open
Architecture....**

Open Standards



- **Freely and publicly available**; Unencumbered by patents and other intellectual property.
- **Non discriminatory**; Available to anyone, any organization, any time, anywhere with no restrictions.
- **No license fees** ; No charges at any time for their use.
- **Vendor neutral and data neutral**; independent of any data storage model or vendor technology.
- **Defined, documented, and approved** by a formal consensus process. The consensus group remains in charge of changes and no single entity controls the standard.



Open Data



- Data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and sharealike.
- Most important aspects:
 - **Availability and Access:** Must be available as a whole and at no more than a reasonable reproduction cost, preferably by downloading over the internet. The data must also be available in a convenient and modifiable form.
 - **Re-use and Redistribution:** Must be provided under terms that permit re-use and redistribution including the intermixing with other datasets.
 - **Universal Participation:** everyone must be able to use, re-use and redistribute with no discrimination. For example, 'non-commercial' restrictions that would prevent 'commercial' use, or restrictions of use for certain purposes (e.g. only in education), are not allowed.
 - **Default:** Open data should be the default position.

Source: <http://data.gc.ca/eng/open-data-101>



- Source: <http://opensource.org/docs/osd>



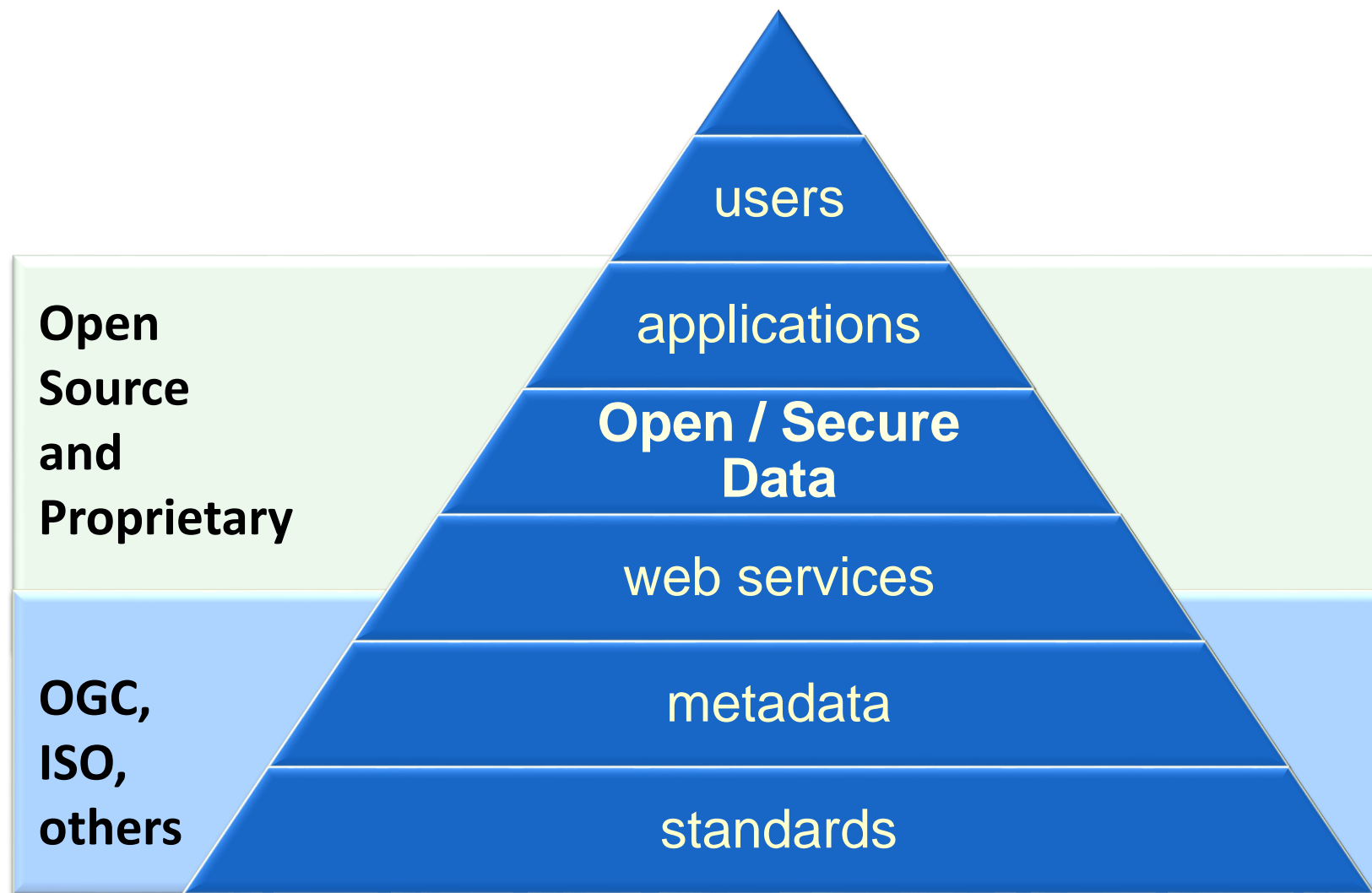
Proprietary Software



- Source code can not be viewed or changed
- Proprietary software is created by businesses who want to sell their software, but some programs that are free to use are still proprietary because the user is not allowed to change them.
- Even if the people who make the program give the source code to other people, the program will be proprietary if they do not allow :
 - Changing the code,
 - Giving the code to other people,
 - Use the code on a different computer,
 - Giving the license to another organization without permission.
- OGC vendor members support both Open Standards and Architectures to enable interoperability for their clients
- Approx. 40% of OGC members are commercial (200+)
- Full list: <http://www.opengeospatial.org/ogc/members>



How does it all fit together ?

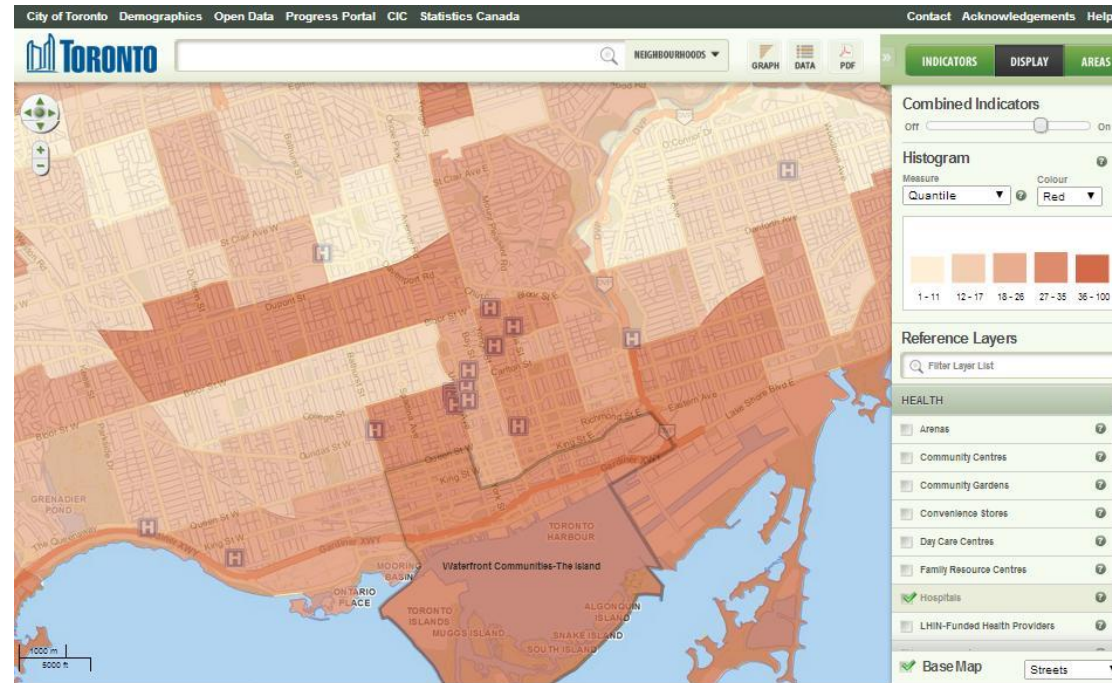


Example Implementation; Local



City of Toronto

- Based on an Open Data Policy, all information from City departments is available
- Uses a combination of both proprietary and open Source technologies
- Interoperability enabled through use of OGC standards



City of Toronto Well Being Portal <http://map.toronto.ca/wellbeing/>

Example Implementation; National



El INEGI te da la bienvenida a la versión beta de su nuevo sitio web Ir a www.inegi.org.mx

INEGI Inicio Datos Servicios Transparencia Investigación Español English

/ Servicios / Espacio y Datos de México

Espacio y Datos de México YouTube Ejercicios prácticos

Visualizar Filtros Capas activas

Ej. "Colima" o "Popocatepetl" o "Avenida Vallarta #2750, Jali" 🔍 ⓘ

▼ Estadística

▲ Geografía

- ☒ División territorial ⓘ
- ☒ Estatal ⓘ
- ☒ Municipal ⓘ
- ☒ Localidades con 2500 o más habitantes ⓘ
- ☐ Localidades con menos de 2500 habitantes ⓘ
- ☐ Áreas rurales no ameznadas
- ☐ Agebs urbanas ⓘ
- ☐ Colonias ⓘ
- ☐ Manzanas ⓘ
- ☒ Vialidades ⓘ
- ☐ Números exteriores ⓘ
- ☐ Áreas verdes / Parques ⓘ

☒ Topografía ⓘ

Satélite de Google

Manzana ⓘ

Nivel de zoom: 5

Puede haber diferencia de las imágenes del mapa con la cartografía e información actual debido a la fecha de toma de las fotografías y a que fueron generadas por procesos técnicos distintos.

Google

13.966054081318315 -114.4775390625 Imagen ©2017 TerraMetrics 200 km Terms of Use

Example Implementation; Global

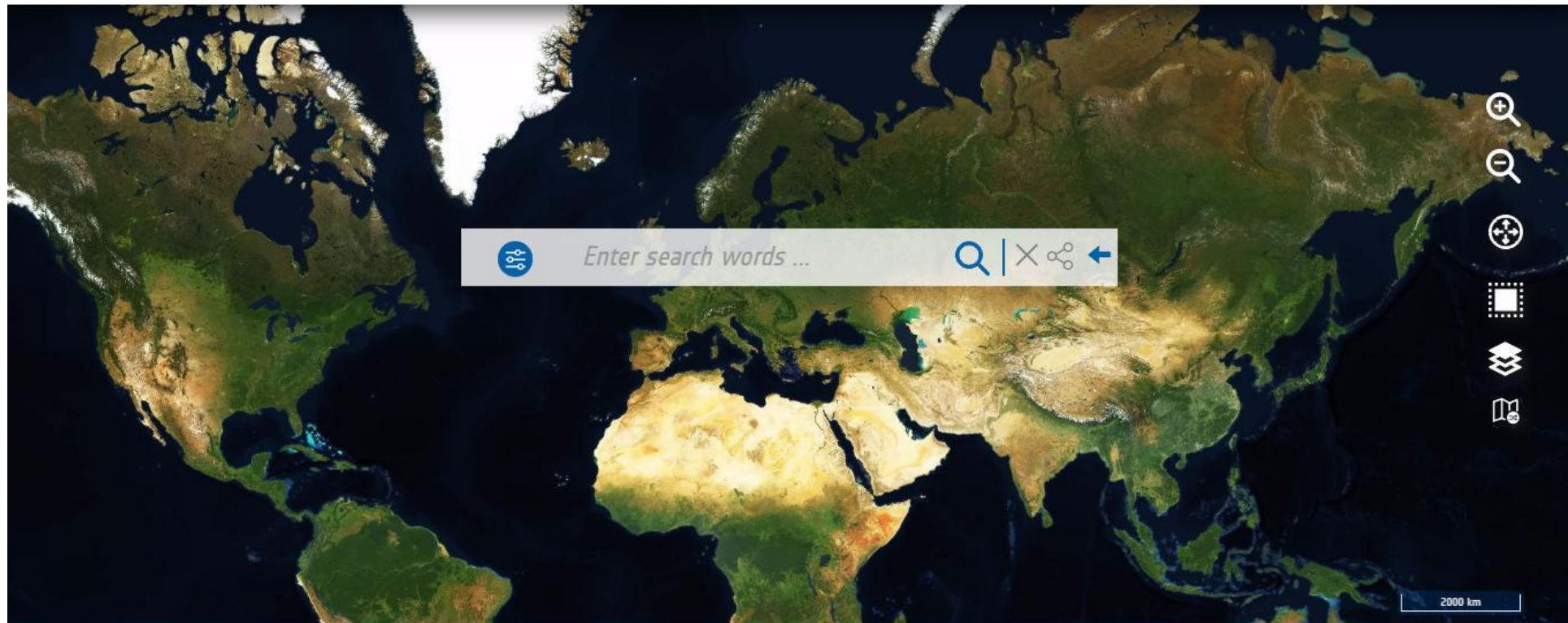


GEO GROUP ON
EARTH OBSERVATIONS

GOSS Portal



esa



One More Aspect



- Open Standards do not necessarily imply open access to data for anyone/everyone!
- This is both a policy decision (for example, data considered private/sensitive) and an IT decision (e.g. who has access to secure information/data)
- The Open Ecosystem can run behind a firewall , based on a private cloud , in a secure environment as well as one that is publically available, or both!

- Examples;
 - UK Met Office (Defense Weather)
 - NGA (US)



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It's a Big Tent – Room for all!



Khan Shatyr, billed as the world's biggest tent and built by Turkish hotelier and construction magnate Fethi Tamince and his partners, is seen after its opening in Astana July 6, 2010.
REUTERS/MUKHTAR KHOLDORBEKOV

Thank You



Open Geospatial Consortium

www.opengeospatial.org

OGC Standards - freely available

www.opengeospatial.org/standards

OGC on YouTube

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



OGC TC/PC Meetings – Delft, March 2017

Guide to Role of Geospatial Standards



Link to: [Guide to the Role of Geospatial Standards](#)

Link to: [Companion document on Standards Recommendation by Tier](#)

Interested in participating ?

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