OneGeology
As a GEOSS Data Provider

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Background

• Initiated in 2007 by Geological Survey Organisations from around the globe: national and state / provincial / territorial

• Voluntary initiative (that became a formal structure in 2013)

• Global geoscience information infrastructure has raised the level of geological survey information delivery across the world

• One of rare actually operating initiatives in geoscience data/services (and beyond) at the global scale
Providing geoscience data globally
Providing geoscience data globally

Advanced functionality: use of SLD (Styled Layer Descriptor) to display the polygons presenting a required lithology or age:

Thanks to a WFS-SLD query, only polygons which age is « Quaternary » are displayed

(Example with Delaware US-DE DGS 100k Surficial Geology)
Advanced functionality: use of WFS to present statistics on polygons displayed
- The WFS result (XML / GML) is analysed and transformed into statistics

(Example with United Kingdom (GBR BGS 1:625k Bedrock Age))
Catalogue service (OGC CSW) – managed centrally

• All WMS and WFS services and layers (datasets) are instantly registered into geonetwork catalogue.

• The catalogue is then requested by the OneGeology portal thanks to a CSW request (XML response).

• Catalogue service registered in some intl. catals (GEOSS).
Providing geoscience data globally
Providing geoscience data globally
Thank you for your @10tion!

Thanks to all the OneGeology members for their input (financial and in-kind) and to supporting organisations!

We encourage you to join OneGeology and to visit us at www.onegeology.org/ and portal.onegeology.org

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Providing geoscience data globally

OneGeology – Providing geoscience data globally

OneGeology Consortium
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BACKGROUND

- Initiated in 2007 by Geological Survey Organisations from around the globe (national and state/provincial/territorial)
- Primarily a voluntary initiative, in 2013 became a Consortium
- Has been a profound success for the geosciences
- It has more than delivered on all of its original goals
- It has raised the level of geological survey information delivery across the world
- It has spawned many projects and initiatives across the world some very large (i.e. OneGeology-EU and GIN (in USA))
- It has made geology a global leader in the field of SDI & an exemplar of a scientific community working together

TECHNICAL FACTS

- Based on interoperability principles (OGC GeoSciML 4.1)
- Maps on distributed servers and sent directly to web client
- Participants deliver map data through a standard OGC web service (WMS / WFS)
- The list of metadata of maps / services is collected into a catalogue of services managed “centrally”
- The portal can display / aggregate all the maps
- Can move data to Google
- Cookbooks, online help and buddy system so all nations can serve their data
- Internet portal and catalogue allow discover, view, zoom, pan, interrogate, download... and transfer to Google, or wherever

OBJECTIVES

- To be the provider of geoscience data globally (c.38 organisations from 117 nations now participating; 250 data services from 14 surveys (national & state); State-of-the-art portal developed and regularly updated; Productive partnerships with COMW and IGCA; Data used by researchers, education, industry, and international agencies)
- To ensure an exchange of know-how and skills so all can participate (building capacity to create digital geological spatial data and make it web accessible transferred across the world; Cookbooks, online and web support developed)
- Use of the global profile of OneGeology to increase awareness of the geosciences and their relevance in contemporary society (Massive media attention and public interest (in millions); Huge external technical interest (100s of presentations, talks & posters & papers written; Acknowledged as the MPE and IUGS flagship initiative; Partnerships with Geoparks, UNESCO, YS, OnGe4G4b)

CURRENT STATUS

- Currently there are 119 Members, 15 Principal Members
- 3 Associate Members (IUGS, AAGS, CCOP)
- One Corporate Member (ESRI)
- Also formally supported by UNESCO, IUGS, ICSU, GEO
- Officially recognised as being the global model for open geo-data sharing awarded the Geoportal World Forum in 2012 for the Excellence in Geospatial Standards Implementation

BENEFITS

- 3D geodata standards development
- Contribution & access to the expertise and experience of international geoscientists and informatics experts (knowledge transfer)
- Leverage Members’ visibility, research, survey and service contribution through its global presence
- Build upon 20+ years of geo-IT and web development (state-of-the-art expertise)
- Distributed dynamic system – serving the data by data provider or using a “buddy” survey
- Use of open global geodata standards (WMS and WFS) to various topics ➔ facilitating the cross-border/global data usage analyses / modelling

SECRET(S) OF SUCCESS

- Short simple mission and vision: 3 simple objectives
- Uncomplicated plan: start simple and build up
- Inclusivity: all geoscience institutions welcome – different nations have different abilities to participate
- Minimal intrusion into local systems
- A pragmatic approach to coordination and governance - those prepared to lead drive it forward
- A “let’s do it” ethos, not excessively strategies about it!
- A “buddy” system to help those who need it
- Putting significant effort into outreach and media profile
- Pre-existence of international network of geoscientists and geological surveys

WHY?

- Data providers need/want/have to share their geoscience data
- End-users need/want the reliable access to the geoscience data (in one place and updated in the best possible way)
- OneGeology makes it happen

Join OneGeology and/or visit us at www.onegeology.org and portal.onegeology.org

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