

Geological surveys of the world united to create OneGeology

The OneGeology aims

This initiative aims to make geological map data accessible to all via the web. It will encourage and accelerate the take-up of a common computer language for geology so knowledge can be shared, and exchange know-how and skills between all nations.

In the beginning

The idea was first proposed in March 2007. The Initiative received the support of many leading global development and geoscience organisations.



Geological surveys and organisations across the world were invited to be a part of OneGeology and a workshop in Brighton was organised to discuss and develop the strategy. The Brighton meeting produced a unanimous 'Accord' that provides the governance, technical and political essentials for OneGeology. From here, OneGeology has grown and developed rapidly with new nations becoming involved all the time

Why?

OneGeology is a global response to the world's environmental and development problems. We all need clean water, we need fuel and mineral resources for homes and industry. We need the knowledge to be able to locate and exploit these resources and engineering solutions for safe stable developments. We need to be able to live sustainably to protect the environment around us and to mitigate pollution, waste and hazards.

How?

OneGeology is an unprecedented initiative – it is delivering digital geological map data directly from its source in participating nations using cutting edge Open Source Web Map Service technology. This is a distributed, dynamic and sustainable model which leaves the data under the control of the provider nations who are able to update data when necessary. OneGeology aims to involve as many nations/surveys as possible to make a commitment to deliver their piece of the global geological jigsaw puzzle.

The OneGeology Portal

OneGeology is based on the use of interoperable technology using WMS (Web Map Service). The OneGeology web portal displays digital geological map data from geological surveys located across the globe. Each participating geological survey places digital geological map data on its own web server (or that of an associated geological survey – its "buddy"). Each geological survey then registers this web service with the portal which displays the map data from each nation. The technology that allows the portal to connect and translate from the individual servers is called WMS (Web Map Service). The first phase of OneGeology uses implementations of the Open Geospatial Consortium (OGC) Web Map Service (WMS) standard.

What's next?

Technically, the next phase, which is already in development, is to move up to what is known as a "Web Feature Service" or WFS. This provides a more sophisticated interface and query system that will allow searching and integration of the rock units. Several OneGeology partners are currently working on making applied data and 3 and 4 dimensional models available too.

Additionally, we will continue to develop the website; to extend the multilingual content, enhance visibility of OneGeology, publish new pages designed specifically for the young future geologists out there, and of course, continue to increase participant numbers.

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