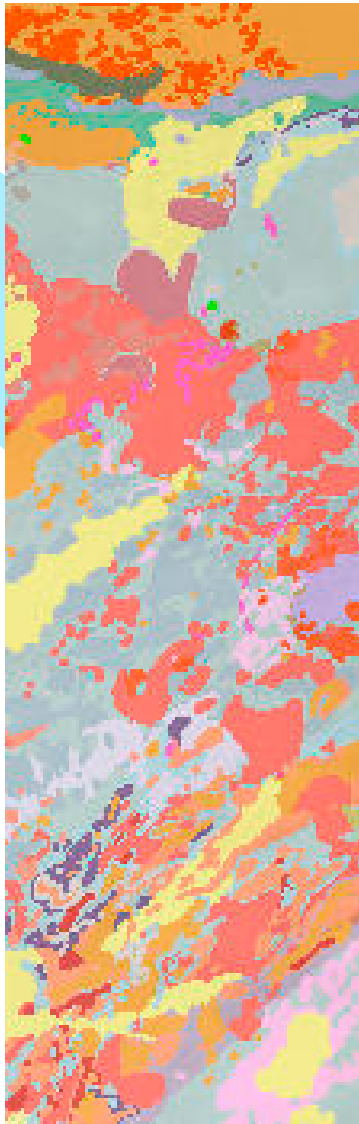


**What** The OneGeology portal is a web portal displaying digital geological map data from geological surveys located across the globe. Each participating geological survey places digital geological map data on its own web server (or that of an associated geological survey – its ‘buddy’). Each geological survey then registers this web service with the portal which displays the map data from each nation.

**How**



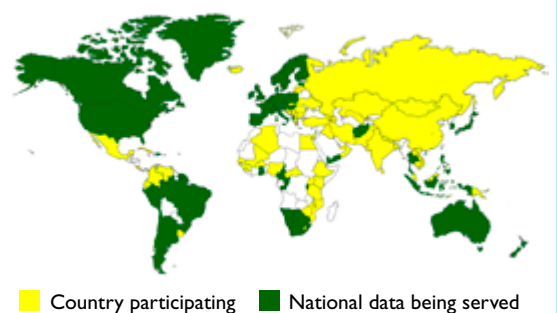
The system takes advantage of new technology. Each geological survey places and controls its own data on its own web server. The OneGeology portal accesses all of these individual servers and displays the information on the OneGeology website. The technology that allows the portal to connect and translate 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.

An OGC WMS produces maps of referenced data dynamically from geographic information. Here a ‘map’ is a visual portrayal of geographic information suitable for display on a computer screen. A map is not the data itself. WMS-produced maps are generally rendered in an image format such as PNG, GIF or JPEG, or occasionally as vector-based graphical elements in Scalable Vector Graphics (SVG) or Web Computer Graphics Metafile (WebCGM) formats.

Geological surveys use a variety of software (e.g. MapServer) to serve their data. Each geological survey informs the OneGeology portal of the existence of its data service by registering the URL of its server in a standard form. The portal ‘harvests’ the map data served by each country and provides users of the portal website with access to the data and the ability to zoom, pan and switch map data on and off. A manual or guidebook – called a ‘Cookbook’ – has been produced to provide all the information a geological survey needs to serve its nation’s digital geological map data on the web.

**Where and Who**

116 nations around the world are currently participating in OneGeology. The portal is a computer (actually a whole series of virtualised servers providing a stable service) operating at the Bureau de Recherches Géologiques et Minières (BRGM) in Orleans, France.

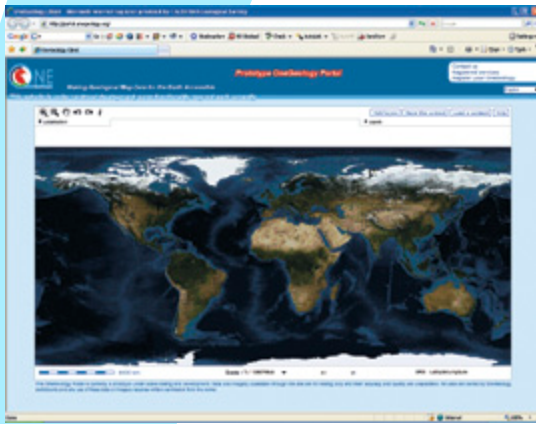


## Why

OneGeology is making digital geological map data accessible and it is also transferring know-how. It is accelerating the development and up take of a new standard to make geological map data 'interoperable'. This standard is known as Geoscience Markup Language (GeoSciML). GeoSciML is a GML Application Schema that can be used to transfer information about geology.

```
Lithostratigraphy (including Lithomorphogenetic units)</Abstract>
<KeywordList>
  <Keyword>Superficial</Keyword>
  <Keyword>Lithostratigraphy</Keyword>
</KeywordList>
<SRS>EPSG:4326</SRS>
<SRS>EPSG:27700</SRS>
<LatLonBoundingBox minx="-7.62927" miny="49.8902" maxx="1.7645"
maxy="60.8489" />
  <BoundingBox SRS="EPSG:4326"
    minx="-7.62927" miny="49.8902" maxx="1.7645" maxy="60.8489" />
  <MetadataURL type="TC211">
    <Format>text/html</Format>
    <OnlineResource xmlns:xlink="http://www.w3.org/1999/xlink"
xlink:type="simple" xlink:href="http://www
```

## When



The portal has been in development since March 2007 and a prototype web service was set up for testing and development.

The OneGeology web portal was officially launched in August 2008 at the International Geological Congress (IGC) in Oslo.

There are over 40 participants currently serving data, see it at [www.portal.onegeology.org](http://www.portal.onegeology.org)

## How does the buddy system work

An online form allows participants to select the participation option that they feel best suitable for their Survey or Organisation. One option is to offer assistance by serving others data on their behalf, whilst another option is to request assistance to serve data to the portal. Once registered, the OneGeology Secretariat will then make the relevant 'buddy' connections.



## What next



The next phase, which some participants are already providing, is to move up to what is known as a 'Web Feature Service' or WFS. This provides an interface allowing requests for geographical features across the web using platform-independent calls.

Several OneGeology partners are also working on making applied data and 3-Dimensional and 4-Dimensional (includes time) models available.

## Contacts and Links

For general information on OneGeology go to [www.onegeology.org](http://www.onegeology.org)  
If you have a specific question email: [onegeology@bgs.ac.uk](mailto:onegeology@bgs.ac.uk) or call +44 (0)115 9363214

For media enquiries or to arrange interviews contact:  
Clive Mitchell, Tel +44 (0)115 936 3143, [cjmi@bgs.ac.uk](mailto:cjmi@bgs.ac.uk)

