



Issue 6 — March 2009

# OneGeology Newsletter

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## Introduction

The number of participating nations in OneGeology is now 102. Welcome to the latest geological surveys/organisations to join OneGeology.

	Burkina Faso		Senegal
	Ghana		The Gambia
	Lesotho		Zimbabwe

Two more participants are also likely to join soon — Zambia and Sudan (South). More than 40 countries/regions are currently making their map data available on the portal including regional data for Africa, South East Asia, Europe, Antarctica, the Andes and the world.

## OneGeology breaks the 100 mark

At the GIRAF workshop on Geoscience Information in Windhoek, Namibia in March, several more African countries agreed to participate in OneGeology. The 100th participant was Burkina Faso. We would very much encourage African surveys not yet participating to contact us.

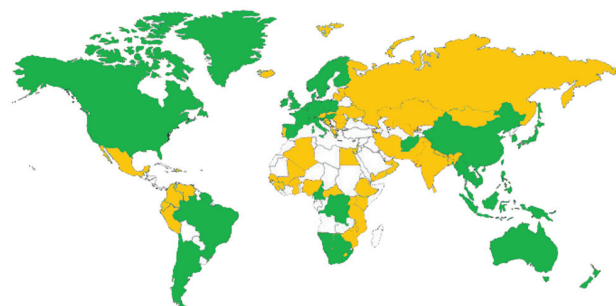


**Ian Jackson, OneGeology Executive Secretary, with Souleymane Mihin, representing the Burkina Faso Survey.**


## Current participation March 2009


خريطة للحالة الراهنة / 目前状况图 / Current status map / Situation actuelle / карта настоящего состояния / Mapa del estado actual

Currently **102** nations participating.



مفتاح / 钥匙 / Key / Clef / Llave:

 البلد المشترك في OneGeology  
参加“地理一体化”的国家  
Country participating in OneGeology  
Pays participant à OneGeology  
Страна-участник проекта OneGeology  
País que participa en OneGeology

 البلد الذي يُعَدّل الآن بياناته إلى بوابة شبكة  
目前为“地理一体化”网络提供服务数据的国家  
Country serving data to OneGeology portal now  
Pays fournissant actuellement des données au portail OneGeology  
Страны предоставляющие информацию в портал OneGeology в настоящий момент  
País que actualmente proporciona datos al portal de OneGeology.

## NEW Quick guide to getting started in the Portal

A new quick guide is now available on the website for users unfamiliar with the Portal. It provides a brief overview of how to use the OneGeology Portal.

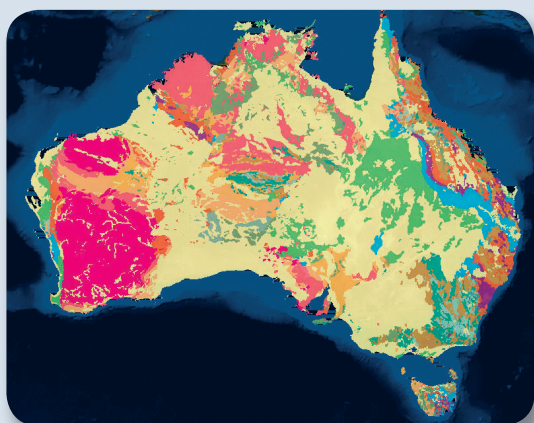
[www.onegeology.org/portal/quick\\_guide.html](http://www.onegeology.org/portal/quick_guide.html)





## News in brief...

- Francois Robida of BRGM (Bureau de Recherches Géologiques et Minières) who is responsible for OneGeology's Portal technical coordination and development has been appointed to the Board of the Open Geospatial Consortium (OGC).
- Australia and Tasmania Map data released — Australia has achieved an historic cross jurisdictional milestone with a new surface geology map of the continent that eliminates traditional state and territory boundaries. In a cooperative programme involving the State and Northern Territory Geological surveys, Geoscience Australia has compiled a 1:1 million scale map which extends over the whole continent and Tasmania in a seamless representation of Australia's geology. The digital information associated with the new map will be provided to the international OneGeology project as Australia's contribution to the program. [www.ga.gov.au/image\\_cache/GA13055.pdf](http://www.ga.gov.au/image_cache/GA13055.pdf)



## Recent visits and talks

- **China** — Ian Jackson, OneGeology Executive Secretary and coordinator, met with Drs Zhang Hongtao (Deputy Director General), Jiang Shijin and Liu Fengshan of the China Geological Survey (CGS) in Beijing in November 2008 to discuss increased CGS involvement in OneGeology.

## OneGeology technical

### *Cookbook 2 — How to Map Data to GeoSciML Version 2*

Two new technical cookbooks were published in January 2009 to support OneGeology participants who wish to progress from serving a OneGeology Level 1 WMS (web map images of the data) to a OneGeology Level 2 WFS (Web Feature Service — the actual 'GIS' data including all the attributes/properties in web service GeoSciML form capable of being queried and used over the WWW). The introduction to this cookbook states 'The GeoSciML application is a standards-based data format that provides a framework for application-neutral encoding of geoscience thematic data and related spatial data. At present the scope is delimited by the information generally shown on geological maps, along with boreholes and field observations. This document is written to assist organisations wishing to make use of the GeoSciML data exchange standard. This will include Level 2 participants in OneGeology who will be serving GeoSciML in a Web Feature Service'. The cookbook (it is at version 1.0 as a cookbook — describing V2.0 of GeoSciML published last December) is available from [www.onegeology.org/docs/technical/GeoSciML\\_Data\\_CookBook\\_V2.pdf](http://www.onegeology.org/docs/technical/GeoSciML_Data_CookBook_V2.pdf) and is also available from the [www.geosci.ml.org](http://www.geosci.ml.org) source web pages. The cookbook explains how to map your data logically to the GeoSciML model. To actually serve the data as a WWW WFS using Open Source software you need to follow the next cookbook published at the same time:

### *Cookbook 3 — How To Serve a GeoSciML Version 2 Web Feature Service (WFS) using open source software. Version 1.1*

Cookbook version 1.1 describing WFS services for GeoSciML version 2.0 is also available from [www.onegeology.org/docs/technical/GeoSciML\\_WFS\\_Server\\_CookBook\\_V2\\_1.1.pdf](http://www.onegeology.org/docs/technical/GeoSciML_WFS_Server_CookBook_V2_1.1.pdf). This cookbook has chapters on overlying (supplied in a kit as usual) new free and open source software (called COCOON) on top of your existing MapServer WMS system to allow you to serve a relatively simple OneGeology level 2 WFS (most datastores currently being used in OneGeology are relatively simple so this is no problem) or using Deegree free and open source software with COCOON for a more advanced more fully featured WFS. Two more chapters will be added to this cookbook by the end of the summer offering an alternative Deegree only candidate and a Geoserver candidate. Ten countries volunteered to set these services up at the Copenhagen Technical Working Group by August 2009, and by then, it should be easier to find where these WFS services are available associated with visible WMS service layers from within the Portal.





### ...News in brief (*continued*)

Following discussions, we are pleased to report that the CGS will in future become active participants in the Technical Working and Operational Management Groups. OneGeology technical experts are due to visit CGS soon to discuss portal and data serving mechanisms (including GeoSciML) with a view to CGS serving 1:1 million scale map data for their nation.

- **Japan** — the OneGeology project was invited to make a presentation at a meeting celebrating the 50th anniversary of Electronic GeoPhysical Year in Tsukuba, near Tokyo in October 2008.
- **Croatia** — OneGeology was presented to the senior members of the Croatian geoscience community in Zagreb in November 2008; attendees included the Croatian Secretary of State for Science.
- A presentation of OneGeology at the UK National Oceanographic Centre visit in January was followed by discussions on how to best make progress with data for the marine domain.

## New OneGeology Portal release

A new release of the Portal will be available for June 2009 which will incorporate new 'OpenLayers' technology. The new release will also correct the access problems with Firefox 3 web browsers and an increase performance is expected. Newly implemented features include a 'zoom to layer' button (already available in the client) and the addition of a tool tip to the GeoSciML tab (results of the 'i' tool) which will include more information on what the GeoSciML results mean and are used for.

OneGeology technical experts are also looking at different ways of displaying the service availability. Currently this is limited to country only i.e. a Geographic area 'North America' and cannot show whether a specific geological survey's server within that area is on-line or not. This option is a specific service and will hopefully be available soon. Keep up to date with progress announcements through the 'monthly news' link on the OneGeology homepage.

### Operational Management Group (OMG) meeting

The next OMG meeting is being arranged and it is hoped it will take place in Buenos Aires in June/July. Please check the website for the latest information.

[www.onegeology.org/meetings/operational\\_meetings.html](http://www.onegeology.org/meetings/operational_meetings.html)

### Technical Working Group (TWG) meeting

The recent TWG meeting was held in Copenhagen on 21 January 2009. The meeting was well-attended with 23 contributors including one attending from Korea and another from the USA — thank you for helping to ensure we have world wide technical involvement and advice. Plans were announced for a new updated version of the WMS cookbook — recommending a much more up to date version of MapServer Open Source software to use and learning from the experiences that we have all had setting up WMS services. Also some improvements to the portal were planned such that users will be able to search on layer title name in order to be more likely to find the actual layer of information that they are

most interested in and thus will be able to get a more understandable overview of what datasets are currently being served to the www and available to the portal.

The date and venue of the next meeting has been arranged for 2–5 pm on 25 September 2009 at the offices of the Geological Survey Of Canada in Quebec city. Thanks to GSC Quebec for offering to host this. The meeting is specifically designed to be outside of Europe and to give OneGeology contributors from North and South America more of a chance to attend the meeting and contribute and share their problems and solutions in person.

The minutes and actions from the Copenhagen meeting can be found at: [www.onegeology.org/meetings/technical\\_meetings.html](http://www.onegeology.org/meetings/technical_meetings.html)





## Meetings – Steering Group meeting

### 23–24 April 2009 Paris

The inaugural meeting of the Steering Group committee will take place in Paris on 23–24 April 2009. Agenda items will include the governance structure of OneGeology, the sustainability of the initiative, intellectual property rights and sponsorship.

Further details and the resulting minutes will be available on the website in due course.

[www.onegeology.org/meetings/steering\\_meetings.html](http://www.onegeology.org/meetings/steering_meetings.html)

Representatives for each of the six global regions have now been appointed to the OneGeology Steering Group. The members are as follows:

Region/Role	Representative	Supported by	Representative
Africa	Dr Gabi Schneider, Namibian Geological Survey	<b>Executive Secretary</b>	Ian Jackson, British Geological Survey
Asia	Dr Hee-Young Chun, CCOP	<b>Secretary</b>	Katy Booth, British Geological Survey
Europe	Dr Marko Komac representing the President of EuroGeoSurveys	<b>Technical Co-ordinator</b>	François Robida, Bureau de Recherches Géologiques et Minières (BRGM)
Latin America	Dr Agamenon S L Dantas, Serviço Geológico do Brasil (CPRM)		
Northern America	Dr Suzette Kimball, USGS		
Oceania	Dr Alex Malahoff, GNS Science New Zealand		

## OneGeology proposed success criteria for the next four years

The OneGeology Operational Management Group (OMG) has set out a series of criteria to aim for over

the next four years. The list below highlights some of the main targets the project team will strive to achieve as well as continuing to produce comprehensive newsletters, press releases, web pages and regular meetings.

	Success criteria	By August 2009	By August 2010	By August 2012 (34 IGC)
1	Number of countries participating	110	125	140
2	Number of countries serving a WMS	55	65	70
3	Number of countries serving a WFS	10	25	40
4	Defined and clearly communicated IPR policy	✓	-	-
5	Produced a policy on high resolution and applied geoscience data	✓	-	-
6	Drafted, agreed and communicated a policy on sponsorship and commercialisation	✓	-	-
7	Subject to agreement on policy begin to negotiate with different NGOs, Donors (e.g. UN, World Bank) and possibly commercial sponsors	-	✓	✓
8	Produced a policy on different 'channels' (universities, commerce, public)	✓	-	-
9	Tested a prototype channel serving academic data	-	✓	-
10	Released an initial service for academic data	-	-	✓
11	Tested a prototype channel serving commercial data	-	-	✓
12	Tested a prototype serving high resolution and applied geoscience data	-	✓	-
13	Released a service for high resolution and applied geoscience data	-	-	✓
14	Number of third parties integrating OneGeology WMS/WFS into their websites or web services	2	5	10
15	Number of presentations/articles/papers in conferences/journals	15/5/5	20/12/8	30/12/8
16	Designed and proposed a symposium for the 34th IGC	-	✓	-







## OneGeology-Europe (1G-E): progress update

After the initial project launch, held in Rome (11–12 September 2008), OneGeology-Europe has progressed well. Many of the Work Package (WP) teams have already held a series of meetings and workshops to progress towards their assigned deliverables. Significant work tasks have been progressed by WP2 (User Cases), WP3 (Informatics Specification, Vocabularies), WP4 (Metadata), WP5 (Data Specification, GeoSciML), WP6 (Geoportal), WP8 (Website, Communications) and WP10 (Linkages, International/EC initiatives).

WP2, WP6 and WP8 have released report deliverables to the EC and the public, these include; User Needs, Best Practice in Geoportals and Communication and Dissemination Strategies.

Recent project meetings and workshops included: WP6 Geoportal workshop held on 20–21 January 2009 at which Work Package members and invited guests reviewed existing portals and defined in greater detail

what functionality they felt a high-quality portal needs to include. Information regarding this workshop is contained within the released Best Practice report. Work Package 3 held a very positive meeting on data specifications in Garmisch Partenkirchen in February. Work Package 4 held a metadata meeting in Prague, at which the initial metadata gathering, standards compliance and metadata profiles were debated and progressed.

The 2nd Operational Management Group meeting was held at EGS/ERTO, Brussels on 8–9 January 2009. The main task of the meeting was to review the project progress and discuss issues from each Work Package. A number of actions were noted and are being implemented to ensure the project remains on schedule and meets its deliverables. The next meeting is scheduled for July 2009.

Future meetings: The first project Awareness Seminar will take place on 31 March 2009 in Brussels. The aim of the seminar will be to explain to European Community officials and invited guests the remit of the 1G-E project, the progress so far and any issues encountered.

### Geoscience Information Network (GIN)

*M Lee Allison, Co-chair, GIN Steering Committee, Arizona Geological Survey, Tucson Arizona, USA*

The partnership between the U.S. Geological Survey and the Association of American State Geologists (AASG) to build a distributed, interoperable data network (GIN) is progressing on multiple fronts.

The Arizona Geological Survey (AZGS) is the lead for the AASG and has funding from the U.S. National Science Foundation to establish protocols and standards for the network and develop Web services to discover, access, and transfer data among the network participants. AZGS just unveiled a Web service for geologic maps using Arizona as the prototype.

The map may be viewed using a Web browser, or viewed and queried using either Google Earth or ESRI's ArcGIS explorer. In addition, the data are published as KML, ArcGIS, WMS and WFS Web services for use in other client applications. Google Earth accesses the data via the KML service. ArcGIS users can connect to either the ArcGIS service or Open Geospatial Consortium (OGC) Web Map Service (WMS) or Web Feature Service (WFS).

The WMS and WFS services may be accessed by any client that implements the OGC interfaces for these services. Many WFS clients can save data out as shapefiles or in other GIS-compatible formats.

As users zoom in on the map, it automatically switches to the next higher resolution, typically 1:100 000 and then 1:24 000, where available.

It's the intent of the GIN group to link these map service products with the OneGeology portal.

Over the next few months, AZGS 'circuit riders' will be on the road showing other geological surveys how to implement and populate their own version of this and other Web services, as the first step towards linking the nodes of the national data network.

The GIN Steering Committee holds its first meeting in Denver on March 24 to set priorities and assign tasks. It's expected that Web catalog services will be the next priority.

GIN System Architect Dr Stephen Richard joined OneGeology-Europe groups in Denmark and Germany recently to help ensure that GIN and 1G-E will be fully compatible and integrated.

