# Where has OneGeology been developing since 2007 and where is it going?

Dr Tim Duffy BGS OneGeology Project Manager (and leader of data services international support team during first 10 years).

#### Launch of new website

The new OneGeology website was launched in November bringing it up to date and making information more easily accessible whilst still conveying the important messages about OneGeology.

The Mission Statement, Accord and MOU are prominent. Sections for the technical and managerial aspects are available.

#### **New Countries**

We would like to welcome a number of new countries who have recently signed up to the OneGeology Initiative. These include:





http://www.onegeology.org

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#### Issue 1 - May 2007

### **OneGeology Newsletter**

#### Welcome!

Welcome to the first edition of the OneGeology Newsletter. We hope to keep you up to date with the initiative's aims, achievements, activities and news.

OneGeology is a flagship project of the International Year of Planet Earth 2008.

Supported by UNESCO and nine other international umbrella bodies, OneGeology aims to create dynamic digital geological map data across the surface of the Earth.

OneGeology will make more accessible the geological map data held by Geological Surveys across the world. The initiative was kicked off at a workshop in Brighton, UK, in March, where 81 participants from 42 nations prepared and endorsed an Accord. You can find out more about OneGeology, the Workshop and the Accord at *www.onegeology.org*.





# OneGeology Newsletter

#### **Special Edition**

Issue 3 - January 2008

#### In this issue:

Introduction Release of Cookbook 1 New web discussion board and email Forthcoming Technical Working Group meeting in France Release of the Prototype Portal Buddy system Further Cookbooks in the pipeline User id's/passwords

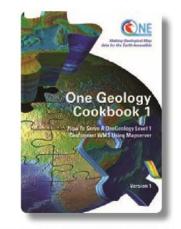
Welcome to this special edition of the Newsletter focussing entirely on news and progress of the Technical Working Group, Progress and development of the Prototype Portal has been extremely good. Members of the Technical Working Group have been working hard to complete the first of the "Cookbooks". OneGeology Cookbooks are guides to help people to deliver their digital geological maps through the world wide web. Cookbook 1, 'how to serve an OneGeology Level 1 conformant WMS using Mapserver', is now available from the website and explains how to set up a Web Map Service (WMS). Also, to complement the Cookbook, there is a new web discussion board and a helpdesk email address to allow easier communication and sharing of information, advice and tips between participants.

#### **Release of Cookbook 1**

Cookbook 1, which explains how to setup a WMS (web map service) has now been released and is available at

2008.

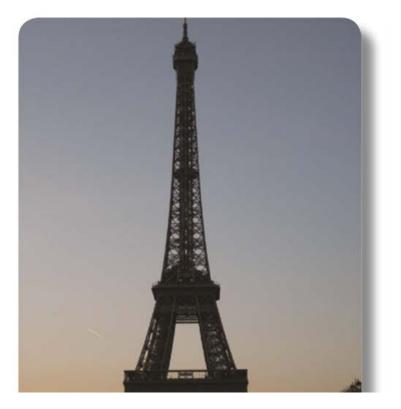
We would like to encourage all OneGeology participants to contribute a OneGeology Level 1 WMS. Please use Cookbook 1 for guidance and register your initial data with



the prototype portal. This cookbook is very much work in

#### International Year of Planet Earth Global Launch, UNESCO, Paris, 12 and 13 February 2008

OneGeology was given centre stage at the Global Launch Event of IYPE in Paris. The event attracted international dignitaries, ambassadors and senior scientists from around the world and OneGeology was included in the speeches of many of these, including the Director General





of UNESCO. We had a OneGeology booth there which attracted much interest and helped in our mission to raise awareness around the world. As a result participation in OneGeology continues to grow. OneGeology was always in demand and a several TV interviews were given, including one on Italian national TV.

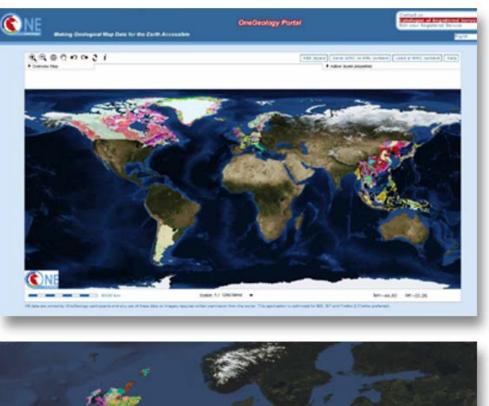
Link to Italian news clip:

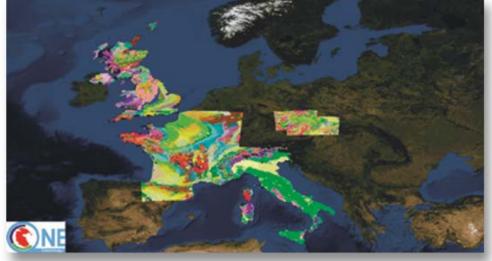
#### **Latest News**

OneGeology now has 94 participating countries. Welcome to the latest geological survey/organisations to join OneGeology:



40+ countries/regions are currently making their map data available on the portal including regional data for Africa, South East Asia, Europe, the Andes and the world.





Examples of maps from the OneGeology Portal.

Region/Role	Representative	Supported by	Representative	
Africa	Dr Gabi Schneider, Namibian Geological Survey	Executive Secretary	lan Jackson, British Geological Survey	
Asia	Dr Hee-Young Chun, CCOP	Secretary	Katy Booth, British Geological Survey	
Europe	Dr Marko Komac representing the President of EuroGeoSurveys	Technical Co-ordinator	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			

# eGeology proposed success criteria the next four years

OneGeology Operational Management Group IG) 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

#### **Technical Working Group Meetings**

The next Technical Working Group meeting will take place on Friday 25 September 2009 at the offices of the Geological Survey of Canada, in Québec. Further details will be posted at:

www.onegeology.org/meetings/technical\_meetings.html nearer the time.

"Science, technology, and innovation proceed more rapidly and more cost-effectively when insights, costs, and risks are shared; and so many of the challenges that science and technology will help us meet are global in character." US President Barack Obama

The next edition of the OneGeology newsletter will be released in early October. If you have any articles or images you would like us to include, please contact the Secretariat at onegeology@bgs.ac.uk.

#### **Updated WFS cookbook**

OneGeology participants are recommended to use the new GeoSciML Cookbook in in order to develop a Web Feature Service. The GeoSciML Cookbook: How to serve a GeoSciML version 2 Web Feature Service (WFS) using Open Source Software has been updated to reflect recent small software changes and developments. Version V2\_1.2 is now current and available at www.onegeology.org/misc/downloads.html.





#### **OneGeology-Europe**

OneGeology-Europe is an EC funded project which aims to build a geoscience spatial data infrastructure for Europe. The major objectives of the project include:

- Making existing digital geological spatial data more easily discoverable, accessible and usable
- Making a significant contribution to the progress of INSPIRE — i.e. develop systems and protocols to better enable the discovery, viewing, downloading and sharing of core European spatial geological data
- Enabling the Groundwater and Soils directives, GMES, GEOSS and SEIS to deliver
- Demonstrating best practice examples of the delivery and application of geological spatial data in the public and private sectors and share the best practice

OneGeology-Europe is progressing rapidly and has now completed a Gap Analysis user needs report; a data audit and review of multilingual metadata profiles; a data model and schema (plus mark-up languages) has been derived; been developed. OneGeology-Europe data specifications Version 1 have been distributed for consultation and further discussion took place at the OneGeology Technical Working Group meeting in Quebec, 25 September 2009.

As well as the technical developments, OneGeology-Europe is also reviewing existing legal frameworks, communication strategies and has developed a website www.onegeology-europe.org/home



OneGeology-Europe: countries involved and providing data.



Colleagues at the IOG, CAGS look at the 1:1million digital geological map of China with OneGeology support staff.

# **Operational Management Group**

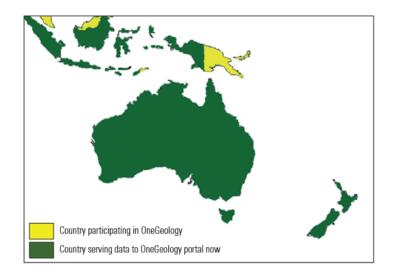
The next meeting of the Operational Management Group is likely to be held in late August 2010 in Berlin, Germany. Please check the website for more information as it becomes available. Earth Institute, looks likely to be built on the legacy of the International Year of Planet Earth.

# **ESRI** offer

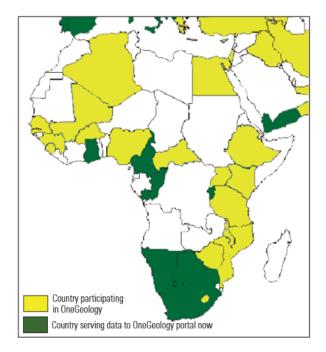
The GIS software company ESRI have offered OneGeology participants a grant comprising one copy of the ArcGIS system, along with maintenance and upgrades free for the first year and 50% discount for the second year, and access to online training. It has been agreed that this grant will be non-exclusive and open to all those geological surveys participating in OneGeology. Grantees will agree to publish and make their data available though the OneGeology infrastructure. Grants are made to institutions, not to individuals and one grant per country will be offered. Once the grant awarding process has been set up, the OneGeology secretariat will notify participants and provide further information on how to apply.

#### Australia: Victoria's Geology Goes Global

GeoScience Victoria's landmark Seamless Geology mapping data is now available via the OneGeology portal. By delivering its new seamless data for western Victoria, GSV is the first Australian state survey to contribute data to the project. It is also one of the few geological surveys in the world to provide complementary data in the powerful GeoScience Mark-up Language (GeoSciML), an international standard for geoscience information delivery developed with a significant Victorian contribution.

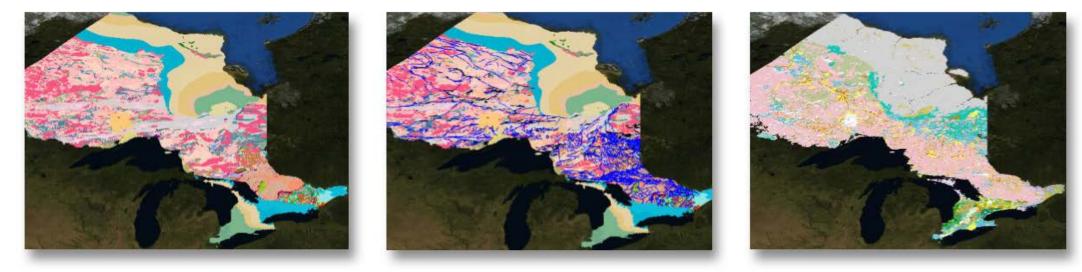


(25 May). The organisation, SEAMIC (Southern and Eastern African Mineral Centre) are offering 'buddy' assistance to serve participating countries data to the portal to a number of countries in the Africa region. SEAMIC is working in association with AEGOS (African-European Georesources Observation System) throughout Africa and OneGeology welcomes its support. We look forward to seeing more data for Africa being served in the portal very soon. www.seamic.org/



### New web services

The latest data to be served to the OneGeology Portal is the Ontario Geological Survey's 250k Bedrock and Structural Geology WMS and 1m Quaternary Geology WMS.



Ontario Geological Survey 1:250 k Precambrian Bedrock and Structural Geology.

Ontario Geological Survey 1:1 m Quaternary Geology.

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# **South American Meeting - October**



**Rio Meeting Attendees** 

In collaboration with the Companhia de Pesquisa de Recursos Minerais – CPRM, public company with the authority of Geological Survey of Brazil, the Asociación de Servícios de Geología y Minería

Iberoamericanos – ASGMI and GEO, OneGeology organised the "OneGeology South America Meeting: Rio-2014". The event was hosted by the Geological Survey of Brazil, held in CPRM, in Rio de Janeiro, on 24th October 2014, and was attend by the representatives of the Geological Surveys of South America and selected invitees.

The purpose is of the meeting was to provide an opportunity for the South America Geosciences community to exchange overviews of progress implementing OneGeology contributions and deploying associated international geoscience data exchanges and vocabularies, and also to discuss the related harmonization and integration of the geological data for the Geological Map of South America, at scales 1:1M and 1:5M. These maps are in being developed by the national geological surveys under the aegis of ASGMI and CGMW

The Meeting was a great success, you can find out more on the <u>CPRM</u> website.

Following the meeting CPRM became the latest successful applicant to the ESRI software grant for OneGeology contributors and we thank ESRI for this very practical <u>sponsorship</u>

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### by OneGeology

#### 360 dataset found

Sorted by Geographic Area Thematic					
<ul> <li>Bathymetry</li> <li>Bedrock</li> <li>Chronostratigraphy</li> <li>Economic Geology</li> <li>Fault</li> <li>Geology</li> <li>Geomagnetism</li> <li>Geopark</li> <li>Geophysics</li> <li>Geothermics</li> <li>Harmonised age</li> </ul>	<ul> <li>Harmonised geology</li> <li>Harmonised structure</li> <li>Harmonized age</li> <li>Harmonized geology</li> <li>Harmonized structure</li> <li>Hydrogeology</li> <li>Hydrogeology</li> <li>Lithology</li> <li>Seismology</li> <li>Stratigraphy</li> <li>Structural geology</li> <li>Structure</li> <li>Superficial</li> <li>Superficial deposits</li> <li>Surface geology</li> </ul>				

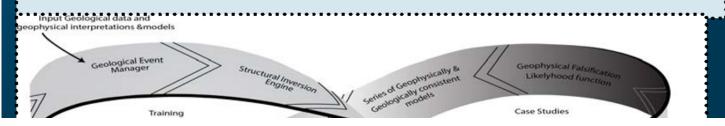
# OneGeology Goes 3D

OneGeology members have teamed up with Academics from Monash University, the University of Western Australia, University de Lorraine and RWTH Aachen University to deliver a new 3D geological modelling platform – The Loop.

Members met in Southampton, UK in September following the Open Geospatial Consortium Technical Meeting to workshop the 3D modelling platform proposal and discuss interest from each National Geological Survey.

Geoscience Australia, The Canadian Geological Survey, The British Geological Survey, The French Geological Survey and the Polish Geological Institute have agreed to be involved and are preparing a consortium of geological surveys under the umbrella of OneGeology to collaborate on the Loop project. This initial group of surveys have been meeting over the past three months to finalise their proposal for involvement. The next face to face meeting will be during the <u>Resources for Future Generations Confer-</u> <u>ence</u> (RFG2018) in Vancouver, Canada in June 2018.

The Loop 3D geological modelling platform will initially be conducted over three years from 2018 and will comprise research into producing a Geological Event Manager, a structural inversion engine, optimisation of supplementary data acquisition to maximise uncertainty reduction, methods for producing a series of geophysically and geologically consistent models, geological simulations, models classification, uncertainty estimation and risk mitigation and a geophysical falsification likelihood function. For more information please contact your OneGeology Board representative.



## OneGeology Organisational Chart

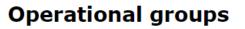
External funding sources and opportunities

OneGeology Board

#### **Chair of the Board**

**Board members**; Asia, Eurasia, Europe, Canada and North America, South America, South Africa and Oceania

Finance and administration BGS Operations BRGM



Technical Implementation Group (TIG)

Technical Advisory Group (TAG)

