# One Geology Newsletter

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#### Launch of new content on the OneGeologyKids web pages

The new OneGeologyKids web pages have just been released with extra content and information. Please take a look. We welcome feedback. The enthusiasm and feedback received following the launch of the initial kids web pages encouraged us to extend and enrich the pages. We are very grateful to staff at the Geological Survey of Ontario, Canada, for all their input. Now we are looking to have these pages translated into as many languages as possible!

The USGS intend to link to the OneGeologyKids web pages to support a US presidential initiative to encourage kids outdoors. www.outdoorindustry.org/news.ceo.php?newsld=14170& newsletterId=201&action=display www.doi.gov/budget/2012/12Hilites/DH073.pdf



UNESCO are launching 'Earth Sciences in Africa', which will link up with OneGeology. For UNESCO improving geological education is a priority and the OneGeologyKids pages will be a central resource to be used by them.

#### **Steering Group Meeting**

The 5th meeting of the OneGeology Steering Group was scheduled for early April in Japan. Due to the tsunami the meeting has been postponed until later in the year, but in order to progress the main items a telephone conference was held. Two significant tasks have been progressed over the last year, taking forward the proposal to incorporate OneGeology and the successful completion of the OneGeology-Europe project.

The OneGeology Steering Group, representing all the global regions, have given the go-ahead to proceed with the

incorporation of OneGeology as a UK not-for-profit charity company. Lawyers are now drawing up the relevant papers and legal articles. Geological Surveys will have the opportunity to become either members or associate members of the company. Further details will be released when available.

The OneGeology-Europe project serves as an example of the progress external funding can achieve and provides a challenge for EuroGeoSurveys (EGS) to progress and keep the momentum in Europe. The EGS has set up a task force to ensure progress continues to develop.























#### A Belgian museum acts as 'buddy' for the Geological Survey of the Democratic Republic of Congo (DRC) to serve geological data to OneGeology

The Royal Museum of Central Africa (RMCA) has a unique position amongst its peers in the world as since its founding in 1898 it is solely devoted to Africa. Its prime mandates are to preserve and manage its African ethnographic and natural sciences collections and to conduct scientific research and disseminate knowledge pertaining to Africa through museological, educational and scientific activities.

The Museum plays an active role for the sustainable development of Africa and aspires to be a centre for collaboration and reflection on today's Africa and the challenges it faces. Large portions of its unique collections and archives are currently being digitised to make them accessible to researchers, professionals and the worldwide community. The RMCA also plays a role in numerous international projects and networks to which it contributes with expertise, data and specialised knowledge.

The Geology Department of RMCA has a close partnership with several African geological surveys, especially the geological survey of the DRC (Centre de Recherches Géologiques et Minières) with which it has worked closely together since 2004 to create among others, metadatabases and databases of geological and mining archives and data existing in DRC's government organisations. One of the results of this work is the Congolese website www.drcmining.org, another is the digital (GIS) map of the DRC at 1/2 000 000 scale, based on the hardcopy map published in 1974, which is still the only existing country wide geological coverage<sup>1</sup>.

1 J Lepersonne, 1974, Carte Géologique du Zaïre au 1/2 000 000, ed. KMMA-MRAC-RMCA

Since 2008, RMCA is providing, on behalf of the Congolese Geological Survey, three layers of this GIS map to the OneGeology portal, which represent the chronostratigraphy, lithostratigraphy and major faults of the country. These were originally ESRI shapefiles that have been imported into a PostGIS database that was first connected to an IONIC WMS/WFS server set up in 2005 for RMCA by the Belgian company GIM² in the scope of an experimental WebGIS project. This proprietary server has been recently replaced by an open-source 'GeoServer' WMS³ which is fully compatible with the SLD standards⁴.

This contribution to OneGeology is the result of an unusual collaboration between two of RMCA divisions with similar needs, i.e, the Geology department and the Cybertaxonomy unit. Like the former, the Cybertaxonomy unit is involved in international WebGIS projects, such as the European Distributed Institute of Taxonomy — EDIT<sup>5</sup>, where together with Spanish and German partner institutes, it developed online tools to produce interactive maps and statistical analyses of taxonomic distribution data<sup>6</sup>. These tools use the same basic components as OneGeology.

RMCA uses as many Open Source tools as possible to publish data to projects like OneGeology and EDIT, not only to be cost-effective, but because Open-Source offers best compliance with OGC standards and protocols. Overall, Open Source enables easy data exchange and reuse of the same technical components by several applications.

F Theeten, M Fernandez, P Lahogue, J Davey, P Mergen.

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- 2 www.gim.be
- 3 geoserver.org/display/GEOS/Welcome
- 4 Styled Layer Descriptor', an OGC/XML standard for the colouring and rendering of maps
- 5 www.e-taxonomy.eu/. Project of the FP6 of the European Union to build a network of excellence of taxonomic institution
- 6 http://edit.br.fgov.be

#### **OneGeology Portal Update**

The OneGeology Portal has been updated with the following improvements:

- the portal is now connected to geonetwork2.6
- the save KML context button has been modified and is now working again
- ☼ a new button has been added to allow users to open a web page displaying the CGI vocabularies





#### **OneGeology and GEO/GEOSS**

#### GEO Ministerial Summit

OneGeology has a high profile within the Group on Earth Observations (GEO/GEOSS). The GEO/GEOSS Ministerial Summit was held in Beijing in November 2010 and OneGeology featured prominently in the opening ceremony, keynote speeches, presentations and exhibitions. OneGeology also featured in the Ministerial Summit's opening movie which was shown to ministers from around the world. See it at www.youtube.com/watch?v=5JJxKuxr\_ul

#### European GEO workshop

OneGeology also contributed to the European GEO meeting in London on 8 and 9 February and provided valuable input.





Example of OneGeology displays at the Ministerial Summit exhibition.

#### EC/CEN GI standards meeting

OneGeology representatives attended an EC/CEN GI standards meeting in Ispra, Italy where GEO and GEOSS were an integral part of the discussion.

#### **Forthcoming events**

#### Diary at a glance

#### Namibia, Windhoek

The 26th Annual Conference of the Geoscience Information Consortium.

30 May-4 June 2011

#### Scotland, Edinburgh

2011 INSPIRE Conference. 27 June-1 July 2011

#### Scotland, Edinburgh

The next OneGeology Operational Management Group meeting.

1 July 2011

#### **Scotland, Edinburgh**

The next OneGeology Technical Working Group meeting. 8 July 2011

#### Scotland, Edinburgh

11th international symposium on Antarctic Earth Sciences. OneGeology will feature in the plenary speeches. 10–16 July 2011

#### Australia, Perth

OneGeology in keynote speech at the 7th symposium of the International Society on Digital Earth. 23–25 August 2011

#### Austria, Salzburg

2011 International Association for Mathematical Geosciences (IAMG). 5–9 September 2011

#### **USA**, Minneapolis

2011 Geological Society of America Annual Meeting. *9–12 October 2011* 

Please forward details of other conferences, meetings, or events relating to OneGeology

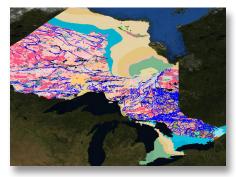
#### Commission for the Geological Map of the World (CGMW)

The CGMW are creating a world ocean-floor map that is scheduled for release for the IGC in Brisbane in 2012. A number of onshore maps are also progressing including Africa and Latin America. These will also be released for the 2012 IGC.

#### **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.

#### **OneGeology experience is sought after**

OneGeology was recently contacted by the Science Coordinator for the GlobalSoilMap.net project headquartered at ISRIC — World Soil Information in Wageningen, Netherlands. This project is similar to OneGeology in that it is bringing together a global collection of data and maps supplied by a large number of cooperating organisations. Our advice on creating and implementing an IPR policy was sought.

#### **REGIONAL NEWS**

## Your regular round-up of progress and events in your region

#### Europe

The coffee-table book 'One Europe One Geology — Applying geoscience for society' has been translated into Slovene and was published in January 2011.

The European Environment Agency have agreed an MOU with EuroGeoSurveys to use OneGeology (European) data in their work programmes.

Additional new map data for Bosnia is being prepared and will be served by GeoZS imminently.

#### Eurasia

We have had official confirmation that data for the Russian Federation will be served during 2011.

#### North America

Canada has completed and published the circumpolar geological map, released in March and a web service was made available in early April.

The USGS map data for the USA has been improved, especially in northern latitudes, and is now available in the Portal.

The Director of the Geological Survey of Mexico (Servicio Geologico Mexicano) confirmed that he is supportive of OneGeology and the goal is to be able to serve data to the portal in 2012.

#### Africa

Communication and collaboration across Africa continues to progress and the Council for Geoscience South Africa have agreed to host Egypt and Mozambique data services. Data services from Ethiopia, and Uganda will hopefully be available soon.

The next Geoscience Information Consortium (GIC) will be hosted by the Geological Survey of Namibia in Windhoek and OneGeology will feature in several presentations.

#### Asia

The maps of Mongolia have been digitised and final approval is now awaited before serving to the portal.

#### Senegal, Dakar — AEGOS Project meeting and final conference — 19 April 2011

The closing conference of African-European Georesources Observation System (AEGOS) was held in Dakar, Senegal, on 19 April. OneGeology was invited to present to a mainly Africa audience of over 120 people

The successful conference attracted much media attention, for example, this article from the Senegal newspaper 'Le Soleil'.

#### RESSOURCES NATURELLES

# Un système pour rendre les informations accessibles et fiables

Une rencontre s'est ouverte hier à Dakar sur le Système d'ob servation Afrique-Europe des Géo-ressources (Aegos), qui va faciliter l'accès à temps réel à l'information fiable aux déci deurs, aux investisseurs et aux scientifiques qui s'intéressen aux ressources naturelles du continent.

Le Ministre d'État, Ministre des Mines, de l'Industrie, de l'Agro- Industrie et des Pme, Abdoulaye Baldé, a présidé hier à Dakar la conférence finale de la Phase 1 du Système d'observation Afrique-Europe des Géo-ressources, plus connu sous le vocable Projet « Aegos ». Action Support du 7e programme cadre de recherche et de développement technologique de l'Union Européenne, Aegos est sous la tutelle du ministère chargé des Mines, pour son expertise et son expérience dans la gestion de l'information et des données géologiques. Lancé en février 2009 en Afrique du Sud et coordonné par le Brgm, Aegos a réuni dans la phase (2009-2011) 23 organismes partenaires de 20 pays africains et européens : des services géologiques, des instituts de recherche internationaux et des centres de formation.

Selon Ábdoulaye Baldé, Aegos « permettra d'héberger et de fournir un accès à l'information sur les ressources naturelles du sous-sol africain y compris les ressources et les matières premières, les eaux souterraines et l'énergie géothermique ». A son avis, la première phase a permis de mettre en place un certain nombre de données qui vont constituer la base de données Aegos. De son point de vue, c'est un Système important aussi bien pour le Sénégal que pour les pays impliqués en ce sens qu'il va faciliter l'accès à temps réel à l'information fiable aux décideurs, aux investisseurs et aux scientifiques qui s'intéressent aux géo ressources du continent.

De son coté, le coordonnateur d'Aegos, Marc Urvois, a précisé que c'est un projet qui vise à concevoir, dans une deuxième phase, un système d'informations qui va mettre à la disposition des usagers des cartes, des rapports qui concernent les géo ressources, « c'est-à-dire les ressources minières, l'eau sou-erraine, et le potentiel en géothermie ». Ce sera, poursuit-il, de façon à ce que les différentes communautés puissent assurer l'éducation des jeunes d'une part et puis d'autre part faciliter la prise de décision de façon à ce que la mise en exploitation soit bien acceptée par la société. D'après lui, ce système pernettra d'apporter une infrastructure commune aux différents pays, un effort collectif qui va bénéficier à chacun des partenaires.

Aly DIOUF

An article published in 'Le Soleil' a Senegalese newspaper. One of the many articles published highlighting the extensive media attention focused on the AEGOS Final Conference.

### Natural Resources — a system to make information accessible and reliable

A meeting on the African-European georesources observation system (AEGOS) took place on 19 April 2011 in Dakar. It is going to facilitate real-time access to reliable information for decision makers, investors, and scientists interested in Africa's mineral resources.

The State Minister, Minister of Mines, Industry, Agro-Industry and small businesses chaired yesterday meeting in Dakar, the Final Conference of phase 1 of the African-European georesources observation system better known as 'AEGOS' Project.

Launched in February 2009, in South Africa and coordinated by BRGM, AEGOS brought together 23 partner organisations from 20 African and European countries: including geological services, comprising international research institutes and training centres.

According to Abdoulaye Baldé, AEGOS will allow us to 'host and provide access to African natural resources including resources and raw material, groundwater and geothermal energy'. In his opinion the first phase has enabled us to define a various number of data that will be entered into the AEGOS database. It is an important system both for Senegal and other countries involved in the project. AEGOS is going to facilitate real-time access to reliable information to African decision makers, investors and scientists who are interested in mineral resources.

AEGOS Coordinator, Marc Urvois also said that the project second phase objective is to provide an information system that will make maps and reports available to users for resource, i.e. 'mining resources, groundwater and geothermal potential'. In addition the project will on the one hand allow the different communities to ensure the education of young people and, also facilitate decision making in order to improve general acceptance of mining activities. The system should bring a common infrastructure to the different countries; a collective effort that will benefit all partners.

#### Recent events

#### South Africa

The 23rd Colloquium of African Geology (CAG23) was held in Johannesburg from 8–14 January 2011.

OneGeology, GIRAF and AEGOS provided a joint workshop at the conference. The OneGeology presentation can be seen at www.onegeology.org/docs/CAG23-OneG-Jan-2011.pdf

#### Denver, Colorado, USA

The National Science Foundation recently held a workshop in Denver, Colorado from 2–4 February 2011. The workshop encompassed Geo-Data Informatics: Exploring the Life Cycle, Citation and Integration of Geo-Data (GeoData 2011).

#### **Onegeology and the YES Network**

OneGeology colleagues continue to develop strong collaborations with the Young Earth Scientist Network (YES). Building on the success of the OneGeology roundtable at the EGU last year, network members are enthusiastic about getting involved in OneGeology as well as using and developing GeoSciML technologies.

Both YES and OneGeology will be present at the Geological Society of America's (GSA) 2011 Annual Meeting in Minneapolis this October (9-12 October 2011) www. geosociety.org/meetings/2011/ and a short course on GeoSciML is being planned, details below:

## Short Course 515: Setting up a GeoSciML data service to publish your geological map data

(Registration opens in mid-June. We will post the registration link as soon as it becomes available).

#### Saturday, 8 October 2011, 8:00 am-5:00 pm.

Cost: \$50; includes continental breakfast and lunch.

Organizers: Arizona Geological Survey (OneGeology participant and data provider), AGI, and YES Network

This course is aimed at graduate students and early-career faculty who are doing geological mapping projects and are interested in online data publication. GeoSciML is a standards-based data format that provides a framework for application-neutral encoding of geoscience thematic data and related spatial data. Using GeoSciML, you will learn how to set up a GeoSciML data service so that you can publish your geological mapping data in a vendor-neutral format that will allow for data exchange and interoperability. Participants are required to bring their own laptops that are equipped with a wireless connection.

Details are also in their latest newsletter at www.networkyes.org

All YES activities planned for the GSA are available at www.networkyes.org/index.php/meetings/gsa\_2011/

Published by the OneGeology secretariat. If you have any articles or images you would like us to include in the next edition of the OneGeology newsletter, please contact the Secretariat at <a href="mailto:onegeology@bgs.ac.uk">onegeology@bgs.ac.uk</a>. Further Information on the OneGeology initiative can be found on the website, <a href="https://www.onegeology.org">www.onegeology.org</a> which is regularly updated.

Contact us at <u>onegeology@bgs.ac.uk</u>
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One Geology website <u>www.onegeology.org</u>