



SPECIAL POINTS OF INTEREST:

- **Future of OneGeology**
- **Board Meeting January 2016**
- **Regional Developments**

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The number of fee paying members of OneGeology has increased to 27 out of a possible 121 Countries

Introduction

Dear OneGeology users, dear data providers, dear members,

We have set ourselves a goal to regularly inform you of the OneGeology status, its membership changes, technical developments, our work plans and regional first-hand information.

As you will be able to read from this, already the 16th Newsletter; OneGeology Consortium is slowly growing, nevertheless our sustainability is still at risk. Consequentially, the future challenges and opportunities of OneGeology have been discussed at autumn meetings and a paper on the topic has been prepared to be discussed at the next Board meeting at the beginning of this year. We're also briefing you about the activities of the Board and the management team about exploring different alternative funding options, the latest technical developments, the reports from the regional activities, and the events related to OneGeology. The Portal has been upgraded and new features added, all to meet the demands from the end-users and at the same time many features remain to be addressed in the future if sufficient funding exists.

We hope you enjoy this Newsletter and we look forward to working with you all in the future. We welcome any feedback, so please feel free to contact us with any views or ideas you have in support of OneGeology, or if you have any interesting articles you would like including in the next edition of the OneGeology Newsletter.

Once again I invite your organisation not to miss the opportunity to join the OneGeology Consortium as a Principal Member. By contributing to the initiative with your membership fee and with the know-how you'll be able to sustain OneGeology and to tackle the future challenges of geology in the company of your fellow colleagues from around the globe. For more information, please contact the admin team at BGS onegeology@bgs.ac.uk.

OneGeology Administration wishes the very best in the New Year 2016!

Marko Komac – Managing Director of OneGeology

Board Meetings

The Next OneGeology Board Meeting will be hosted in Brazil!



Companhia de Pesquisa de Recursos Minerais – CPRM, public company with the authority of Geological Survey of Brazil is hosting in Rio de Janeiro, Brazil, from **27th to 29th of January, 2016** the next OneGeology Board Meeting.

Telephone conferences #5 and #6 - Update...In the past half a year OneGeology Board had two virtual meetings, 5th in the spring and in 6th in the late autumn, to discuss current issues, to address the future roadmap and to prepare for the January 2016 Rio Meeting. The topics of the two teleconferences were exploring the various alternative funding possibilities such as charity funding, potential support from the mining sector and international institutions, the development of additional portal services to meet end-user demands, and to discuss the options on the future of OneGeology. A decision was taken to address the members and to ask them for a stronger engagement in finding the sustainable concept of OneGeology in the future and as a result several workshops were organised for this purpose. It was decided that the next Board meeting in Rio de Janeiro, Brazil, in January 2016 will be the decisive one where the decision will be taken whether to continue with the OneGeology initiative and if decided positively, what future modus operandi would be the best

You can find a summary of the meetings, plus the agenda and actions on the dedicated meetings page of our [website](#)

Current Membership Status

From the last Newsletter, the OneGeology Consortium has grown by one member. We openly welcome Portuguese geological survey – LNEG as our new [Principal Member!](#)

Again we invite all institutions that support the idea, the concept and the aims of OneGeology not to miss the opportunity to join OneGeology Consortium and to help achieve its sustainability.

For more information or a copy of the Consortium Agreement please contact us; onegeology@bgs.ac.uk

Outcomes from the Baltimore and Ispra “Future of OneGeology” meetings

Dear OneGeology Members,

You may remember back in October we wrote to all of you highlighting that the OneGeology Board agreed to canvas opinion about a new approach to address new challenges to work further towards its sustainability. The concept was to identify important new unifying challenges and concepts that a broad coalition wants to contribute to solve within the OneGeology platform. At the end of October and in beginning of November the OneGeology team organised two parallel meetings with Consortium constituents, one in parallel to the GSA meeting in Baltimore, USA and one in parallel to the CGI/OGC meetings in Ispra, Italy.

The meetings essentially tried to address the question: How should OneGeology aim to become the implementation platform for addressing the scientific and technical challenges that the globe faces in the next decades and to build upon science and standards for a geoscience solution to these shared challenges.

Discussions in both Baltimore and Ispra centred around 3 main

areas: Identifying the technical and geological challenges facing the community.

The common communication of 3D geology seemed to be the key issue identified, although there was a clear recognition of the need to enhance the current 2D spatial coverage and increase the breadth of applied geological data served.

Identifying the challenges faced in securing sustainable funding for OneGeology into the future

That the success of seeking funding from the Geological Survey community depended upon pursuing challenges that would be too expensive for organisations to pursue alone and that external funding such as sponsorship needed up-to-date content and the identification of a unique selling point for OneGeology. There was a recognition that this would also be difficult in times of low commodity prices.

Beginning to develop a roadmap to meet those challenges

That it might be straightforward to identify steps that would lead to a common end position for OneGeology; these would include i) identifying Geological Surveys that would pledge in-kind support once a goal was specified; ii) addressing challenges that were within reach of significant numbers of surveys so that content would be available to serve on a portal; and iii) that administra-

tively OneGeology is not alone in trying to address some of these challenges and might look to other organisations and communities to share the burden e.g. Research Data Alliance as well as IUGS-CGI.

The next stage is to agree these steps in detail at the annual OneGeology Board meeting along with a plan for communication and mechanism to address the constitution of OneGeology to reflect a change in governance and focus. If you have a view on any of these issues or would like to contribute more generally, please contact the OneGeology Board member for your continent or email onegeology@bgs.ac.uk.

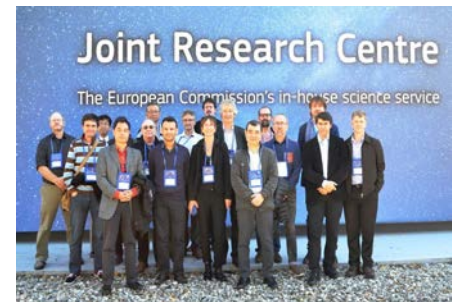
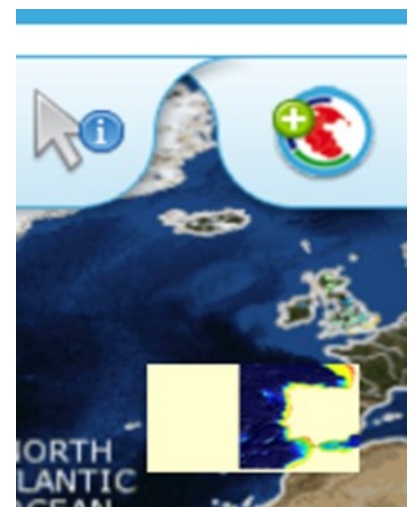


Image: Members of the IUGS-CGI committees and OneGeology that discussed developments for the future of OneGeology at the JRC ISPRa site near Milan.

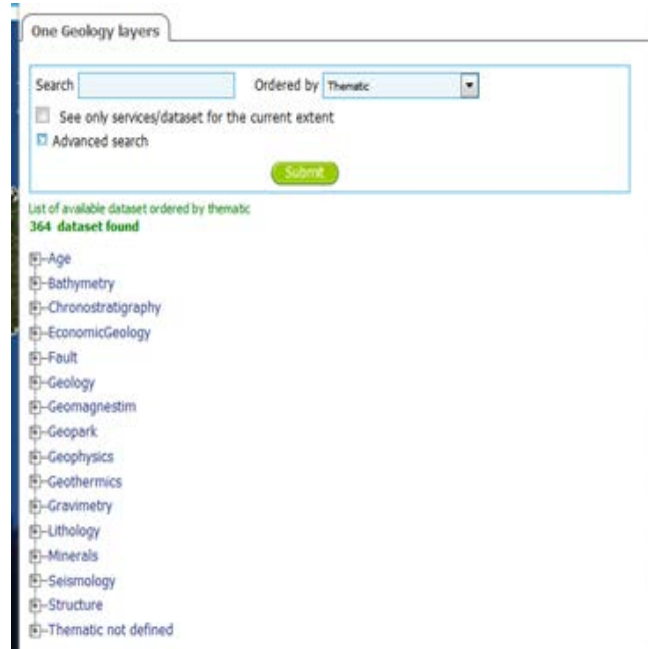
Interoperability and OneGeology Data Portal enhancements

Recently there have been very significant enhancements to the international IUGS-CGI data standards documented and used by OneGeology. In December 2015 GeoSciML 4.0 was published (see www.geosciiml.org) and all relevant OneGeology documentation and portal support for this standard was updated (see for example http://www.onegeology.org/docs/technical/GeoSciML_Cookbook_1.2.pdf). As well as being on track to becoming a formal international OGC standard in 2016, this development will allow European OneGeology members to fulfil their INSPIRE legislative requirements both for WMS and WFS in a simpler way than with the earlier 3.2 version. This will allow them to continue to use this global standard whilst benefitting from its extended modules many of which in practice GSO's wish to use and which allow OneGeology the potential to express much more geoscience in a fully interoperable way. The Data Portal production platform has been considerably upgraded including using the new back office catalogue software Geonetwork version 3 allowing rigorous support for the growth of OneGeology data services.



Continued.....

Also, important enhancements have been made to the portal user interface: The start button where users Find and add OneGeology data layers (see image above) has been highlighted with a logo and add sign. This image shows that button with a GeoSciML-Portrayal queryable WMS (part of the GeoSciML 4 standard) from the UK displayed, along with a new Web Coverage Service (WCS) view of the Iberian peninsula.



Once the button is chosen, a sophisticated new search capability is offered (see image to left or right?) which allows the user to search for and display data services available by geography as before, but also now search for services by WMS, WFS and WCS type and also, most importantly, to search for data defined by the new geoscience topic 'Thematic keywords'. These keywords now encourage the registration on OneGeology of many more types of geoscience data, in fact we hope that any data providers have may fit these themes. Have a look at this list:

- | | | | |
|----------------------------------|------------------------------------|----------------------------|-----------------------|
| Ore | Landslide | Emission of climate gas | Groundwater level |
| Metallic ore | Mud and debris flow | Global warming | Infiltration |
| Engineering geology | Off-shore landslides and collapses | Methane exhalation | Spring, Water quality |
| Geotechnics | Quick clay | Sea level rise | Water well |
| Rock mechanics | Rockfall | Carbon capture and storage | Groundwater body |
| Soil mechanics | Tsunami | Waste | |
| Land heave | Volcanism | Medical geology | |
| Land subsidence | Pollution | Airborne dust exposure | |
| Environmental geology | Acid drainage | Arsenic exposure | |
| Geologic hazards | Groundwater pollution | Asbestos exposure | |
| Avalanche | Diffuse pollution | Heavy metal exposure | |
| Cavity caving | Point-source pollution | Radon exposure | |
| Collapse of metastable sediments | Reclamation | Hydrogeology | |
| Earthquake | Soil pollution | Aquifer | |
| Flood | Climate change | Groundwater | |
| | | Groundwater abstraction | |

Look at <http://www.onegeology.org/wmsCookbook/appendixI.html> for some more details – is there any geoscience data that you have or that users might want to access from OneGeology that does not fall within these themes?

Regional Updates

Africa: Council for Geoscience from the Republic of South Africa (CGS) is active in organising with the cooperation of the OneGeology Consortium the OneGeology Africa workshop that will be held at the 35th IGC in Cape Town in August 2016. With this event OneGeology is focusing to more actively involve African countries.

Asia: Under the umbrella of OneGeology the following four projects have been implemented in Asia, supported by the Geological Survey of Japan: i) 1:1 M Seamless Geological Map of Southeast Asia; ii) CCOF (Coordinating Committee for Geoscience Programmes in East and Southeast Asia) Geoinformation sharing infrastructure for East and Southeast Asia (GSI); iii) Asia-Pacific Region Global Earthquake and Volcanic Eruption Risk Management (G-EVER); and iv) ASEAN Mineral Information System Development training series.

Eurasia: Invitation letters to join OneGeology have been sent to potential new members from Eurasian countries. Efforts are made by VSEGEI to bring new members from the region into OneGeology during 2015.

Europe: Invitation letters to join OneGeology have been sent to potential new members from European countries. PGI is planning to organise a workshop in Warsaw in spring 2016, targeting the OneGeology community with the purpose to promote the standards that are used to enable OneGeology services and benefits of joining us.

North America: USA State Geological Surveys are serving up state-level and higher resolution maps to the OneGeology portal. Seven states (Vermont, Michigan, Ohio, Florida, Missouri, Idaho, and Arizona) are adding maps ranging from 1:1 million to 1:24,000 (standard 7.5" quadrangles). Another 24 states participated in a workshop on how to develop their web services and are working to make them available. These maps are in addition to the national level maps served by the USGS.

In Canada the newly elected Prime Minister of Canada, Justin Trudeau, set the new agenda to improve the quality of publicly available data in Canada and to develop an Open Data initiative that would consider big data and make more of the data paid for by Canadians available to the public.

Oceania: The Geological Surveys of Australian collaborate through a National Geoscience Agreement have an agreed strategic objective of attempting to reveal the potential of is covered basement. Approximately 80% of Australian is covered by regolith and thin basin sediments which covers extension of our most prospective terranes. Australia has developed a national program labelled "Uncover" which seeks to map the basement geology. In New Zealand the 150th Anniversary of the geological survey, GNS is being celebrated through the year and has culminated at the end of November at a major geoscience Conference in Wellington. Congratulations!!! GSA continues to explore ways of bring information in to OneGeology for Pacific Island Nations members.

South America: CPRM has been in contact with the representative of the Geological Survey of Venezuela - INGEOMIN, Prof. Franco Urbani to process the data of the Geological Map of Venezuela to WMS. Taking into account the lack of web GIS infrastructural in INGEOMIN, and based on several discussion it was agreed by both side that CPRM will host the Geological Map of Venezuela. Similar contacts are in progress with Paraguay and Uruguay. CPRM is involved in large programme in Geohazards & Groundwater, which already covers 50% of South American countries and the information could be used for OneGeology services.

OneGeology Team Activity

- From April to November 2015 OneGeology teams were active in disseminating OneGeology concept, communicating with its members and inviting new ones.
- In April OneGeology was presented at the EGU General Assembly 2015 in Vienna, Austria.
- OneGeology admin team attended a short fundraising training workshop on 20th May 2015 in Newcastle, UK to explore the possibilities on future funding through the charity sources.
- In May an open OneGeology workshop OneGeology: Providing geoscience data globally was organized at the INSPIRE GWF 2015 Conference in Lisbon, Portugal that was well attended.
- In May we held the Technical Advisory Group Meeting in Hannover, Germany hosted by the German Geological Survey.
- OneGeology annual Technical Implementation Group meeting was held on 26th May in parallel with the INSPIRE GWF 2015 Lisbon event. It was hosted at the LNEG (Portuguese Geological Survey)
- In July ICSU WDS organised in Paris an event Trusted Data Services to support Climate Change Research as a side event to the UNESCO's Our Common Future under Climate Change Data where OneGeology was presented.
- At the Research Data Alliance Europe meeting, September. In Paris we represented OneGeology in discussions about 3D in Geoscience
- In November OneGeology teams met with its constituents at two parallel meeting at two different continents. North American and several European members of OneGeology Consortium met for a workshop in Baltimore, USA, at the GSA 2015. At the same time another meeting was organised within the OGC and CGI meetings at JRC in Ispra, Italy, with a global attendance.

Useful Links

Some important links:

OneGeology web site (www.onegeology.org)

OneGeology Portal (<http://portal.onegeology.org>)

OneGeology Brighton Accord (http://www.onegeology.org/what_is/accord.html)

OneGeology help (onegeologyhelp@bgs.ac.uk)

General questions (onegeology@bgs.ac.uk)

OneGeology Administration

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Information: <http://www.onegeology.org>

