

ONE WORLD, ONE DREAM, **ONEGEOLOGY**

We are on our way to get a unique geological map for the entire planet accessible on the web. This represents a true breakthrough for the visibility and exchange of geological information.

TEXT: Halfdan Carstens

Since its kick-off in March 2007, attended by 43 countries, **OneGeology** has come a long way in creating a dynamic, digital geological map data for the world, especially in our science that usually counts time in millennia! As of June 1st, 79 nations were participating. Ten of those countries are currently serving data to the portal, with at least 10 more expected by the 33rd IGC.

At the 33rd International Geological Congress in Oslo this summer, on the 6th of August, this ground-breaking project will be formally launched. A 20 minute event is planned as part of the Opening plenary of the congress.

CAN MAKE A DIFFERENCE

“OneGeology represents a breakthrough for international cooperation within the geological survey community,” says Ian

SIMPLE, BASIC AND UNIFYING

The OneGeology concept emerged in 2006. Like most ideas which catch the imagination, it was simple, basic and unifying, but most of all it was timely.

Jackson, Chief of Operations with the British Geological Survey, the person who originated OneGeology and who is currently coordinating it. “While geological surveys have always played an invaluable role within their own nations and also worked bilaterally to assist each other, they have never before pooled their unrivalled expertise and data and knowledge bases to deliver something that can make a difference globally.”

“Geology and the resources and hazards that go with it, have no respect for political boundaries, by working trans-nationally we can make a difference on a global as well as a national scale,” says Jackson.

If these claims make you curious and you will be going to Oslo, then there will be no shortage of opportunity to find out more. A OneGeology exhibition booth will be present throughout the whole conference and a symposium will give in depth information through a series of presentations and talks on the scientific, informatics and operational aspects of OneGeology.

INTERNATIONAL INITIATIVE

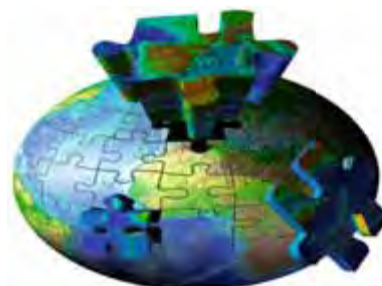
OneGeology is an international initiative of the geological surveys of the world and a flagship project of the “International Year of Planet Earth”. It is a way that geological surveys can provide a tangible deliverable from IYPE, involve all nations and raise the profile of geoscience.

First and foremost the project's aim is to



create dynamic digital geological map data for the world available via the web. This will be achieved by making existing geological map data accessible in whatever digital format is available in each country. This will create a focus for accessing geological information for everyone. The target scale is 1:1 million, but the project is being pragmatic and accepting a range of scales and the best available data.

One of the prime aims of OneGeology is to transfer know-how to those who need it. As many countries may not have the neces-



“Geological sciences and geological structures do not end at national boundaries. Working on the same planet, geologists need to communicate and share knowledge with each other, and to draw on each other’s expertise
Chinese premier Wen Jiabao 19 June 2007

sary skills or capacity to carry out such tasks OneGeology has adopted an approach that recognises and allows different nations who have differing abilities to participate in many ways and has adopted a “buddy” system whereby one nation can help others.

The Portal is an internet web map service – no special software is required by the user. Users will be able to access the web portal using a browser and request the data for an area of interest, in much the same way as Google Earth. In addition links to the owners of the data (usually the geological survey of that country) are available if more information is required.

WHY GLOBAL MAPS?

There are many reasons to do the OneGeology project at this point in time.

“In particular there is a need to understand our global environment in order to solve global environmental problems at a global scale,” says Jackson.

“Digital geological map data is often of variable quality and consistency,” he continues. “The aim is to bring it all together, making it easily accessible and create an important source of global geological knowledge.”



Photo: Private

It is apparent that geo-spatial data, satellite imagery and computing systems are being used in a way that we have never seen before and that means that if geoscience wants to be a part of the future, the geoscience community needs to accelerate the development and spread of essential digital geological map standards.

In transferring know-how, OneGeology is reducing the length and expense of the learning curve for nations in the developing, while at the same time producing maps and data that will attract interest and investment.

TRULY MULTINATIONAL

“Geological surveys and geoscientists around the world have always had a responsibility to make accessible the best geological map data they have. Now to operate on a global stage they need to work towards modern and consistent standards for data and data access, and enhance and increase the use and usability of their data” says Jackson.

The OneGeology concept is a completely modern paradigm and a world first: – a set of geological map data served to an internet portal using Web Map Service technology on a national basis by individual geological surveys. This is a dynamic, distributed and sustainable model, one that leaves the data where it can be best looked after and updated by the provider nations.

To achieve its goals the project team is combining state-of-the-art skills in geoscience data modelling and information management with vast expertise and experience in the geoscience of their nations.

Ian Jackson, Chief of Operations with the British Geological Survey, is the geoscientist who originally came up with the idea of OneGeology. Ian is coordinating the project.



The project is a truly multinational venture. It involves many different stakeholders working together: the network of geological surveys around the world, the global umbrella organisations of the Commission for the Geological Map of the World (CGMW), International Union of Geological Sciences (IUGS), International Year of Planet Earth (IYPE), United Nations Educational Scientific & Cultural Organisation (UNESCO) and the International Steering Committee for Global Mapping (ISCGM).

PORTAL

The first prototype OneGeology Portal is now available for anyone to view and for OneGeology participants to register their data (<http://portal.onegeology.org>). In the run up to the launch at the IGC the portal has been under continual development, and while some functionality may not work currently, by the time this article comes to press the portal should be fully operational.

MISSION STATEMENT

Make web-accessible the best available geological map data worldwide at a scale of about 1:1 million, as a geological survey contribution to the International Year of Planet Earth.