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OneGeology Web Services and Portal as a global geological SDI – latest standards and technology

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The global coverage of OneGeology Web Services (www.onegeology.org and portal.onegeology.org) achieved since 2007 from the 120 participating geological surveys will be reviewed and issues arising discussed.
Recent enhancements to the OneGeology Web Services capabilities will be covered including new up to 5 star service accreditation scheme utilising the ISO/OGC Web Mapping Service standard version 1.3, core ISO 19115 metadata additions and Version 2.0 Web Feature Services (WFS) serving the new IUGS-CGI GeoSciML V3.2 geological web data exchange language standard (http://www.geosciml.org/) with its associated 30+ IUGS-CGI available vocabularies (http://resource.geosciml.org/ and http://srvgeosciml.brgm.fr/eXist2010/brgm/client.html).
Use of the CGI simpelithology and timescale dictionaries now allow those who wish to do so to offer data harmonisation to query their GeoSciML 3.2 based Web Feature Services and their GeoSciML_Portrayal V2.0.1 (http://www.geosciml.org/) Web Map Services in the OneGeology portal (http://portal.onegeology.org).
Contributing to OneGeology involves offering to serve ideally 1:1000,000 scale geological data (in practice any scale now is warmly welcomed) as an OGC (Open Geospatial Consortium) standard based WMS (Web Mapping Service) service from an available WWW server. This may either be hosted within the Geological Survey or a neighbouring, regional or elsewhere institution that offers to serve that data for them i.e. offers to help technically by providing the web serving IT infrastructure as a 'buddy'.
OneGeology is a standards focussed Spatial Data Infrastructure (SDI) and works to ensure that these standards work together and it is now possible for European Geological Surveys to register their INSPIRE web services within the OneGeology SDI (e.g. see http://www.geosciml.org/geosciml/3.2/documentation/cookbook/INSPIRE_GeoSciML_Cookbook%20_1.0.pdf).
The Onegeology portal (http://portal.onegeology.org) is the first port of call for anyone wishing to discover the availability of global geological web services and has new functionality to view and use such services including multiple projection support.

KEYWORDS : OneGeology; GeoSciML V 3.2; Data exchange; Portal; INSPIRE; Standards; OGC; Interoperability; GeoScience information; WMS; WFS; Cookbook.