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The interoperability skill of the Geographic Portal of the ISPRA - Geological Survey of Italy

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The Geographic Portal of Geological Survey of Italy (ISPRA) available at http://serviziogeologico.apat.it/Portal was planning according to standard criteria of the INSPIRE directive. ArcIMS services and at the same time WMS and WFS services had been realized to satisfy the different clients.
For each database and web-services the metadata had been wrote in agreement with the ISO 19115. The management architecture of the portal allow it to encode the clients input and output requests both in ArcXML and in GML language. The web-applications and web-services had been realized for each database owner of Land Protection and Georesources Department concerning the geological map at the scale 1:50.000 (CARG Project) and 1:100.000, the IFFI landslide inventory, the boreholes due Law 464/84, the large-scale geological map and all the raster format maps.
The portal thus far published is at the experimental stage but through the development of a new graphical interface achieves the final version.
The WMS and WFS services including metadata will be re-designed.
The validity of the methodology and the applied standards allow to look ahead to the growing developments.
In addition to this it must be borne in mind that the capacity of the new geological standard language (GeoSciML), which is already incorporated in the web-services deployed, will be allow a better display and query of the geological data according to the interoperability.
The characteristics of the geological data demand for the cartographic mapping specific libraries of symbols not yet available in a WMS service. This is an other aspect regards the standards of the geological informations. Therefore at the moment were carried out:
- a library of geological symbols to be used for printing, with a sketch of system colors and a library for displaying data on video, which almost completely solves the problems of the coverage point and area data (also directed) but that still introduces problems for the linear data (solutions: ArcIMS services from Arcmap projects or a specific SLD implementation for WMS services);
- an update of “Guidelines for the supply of geological data” in a short time will be published;
- the Geological Survey of Italy is officially involved in the IUGS-CGI working group for the processing and experimentation on the new GeoSciML language with the WMS/WFS services.
The availability of geographic informations occurs through the metadata that can be distributed online so that search engines can find them through specialized research.
The collected metadata in catalogs are structured in a standard (ISO 19135). The catalogs are a ‘common’ interface to locate, view and query data and metadata services, web services and other resources.
Then, while working in a growing sector of the environmental knowledgement the focus is to collect the participation of other subjects that contribute to the enrichment of the informative content available, so as to be able to arrive to a real portal of national interest especially in case of disaster management.