



Geo-hazard harmonised data a driven process to environmental analysis system

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In the last decade an increase of damage caused by natural disasters has been recorded in Italy. To support environmental safety and human protection, by reducing vulnerability of exposed elements as well as improving the resilience of the involved communities, it need to give access to harmonized and customized data that is one of several steps towards delivering adequate support to risk assessment, reduction and management. In this contest has been developed SEIS and Copernicus-GEMES as infrastructure based on web services for environmental analysis, to integrates in its own system specifications and results from INSPIRE. The two landslide risk scenarios developed in different European projects driven the harmonization process of data that represents the basic element to have interoperable web services in environmental analysis system. From two different perspective we have built a common methodology to analyse dataset and transform them into INSPIRE compliant format following the Data Specification on Geology and on Natural Risk Zone given by INSPIRE. To ensure the maximum results and re-usability of data we have also applied to the landslide and geological datasets a wider Data model standard like GeoSciML, that represents the natural extension of INSPIRE data model to provide more information. The aim of this work is to present the first results of two projects concerning the data harmonisation process, where an important role is played by the semantic harmonisation using the ontology service and/or the hierarchy vocabularies available as Link Data or Link Open Data by means of URI directly in the data spatial services. It will be presented how the harmonised web services can provide an add value in a risk scenario analysis system, showing the first results of the landslide environmental analysis developed by the eENVplus and LIFE+IMAGINE projects.