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Geoscience information - is it mature enough to play a role in national and international spatial data infrastructures ?

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In the last 20 years spatial data and geographic information systems have moved from being research topics to being mainstream commercial and government utilities. Applications range from satellite navigation to flood risk management and supermarket location. Topographic, social and biological data sets are ubiquitous, but sadly, it is true to say that there are few widespread applications which utilise geological data. This despite the fact that most geological data is spatially related and even more pointedly that geological data is absolutely relevant to society and commerce, be it in hazard mitigation or sustainable resource development.

Amongst the potential factors behind the perceived lack of prominence must be the availability and accessibility of quality assured and consistent geoscience datasets at a national and international level. Geological data, across the sub-disciplines - from geochemistry to geophysics, and from stratigraphy to hydrogeology - remains not only a fragmented and incomplete information resource but also, because it is often only disseminated in scientific language, one that is inaccessible to those who should be using it outside the profession.

New international initiatives to develop spatial data infrastructures (such as European Union directive: INSPIRE) present a considerable opportunity for geoscience data to play a more central role. At the same time the geoscience community is trying to understand and improve the situation For instance, at the national level many geological surveys are giving far more priority and funding to managing their information reources and at the international level the reactivation by the IUGS of the new Commission for the Management and Application of Geoscience Information (CGI)

is evidence of a greater appreciation of the fundamental value of better information management.

This paper will explore aspects of the status of the geoscience data infrastructure (standards, management and availability) in Europe, look briefly at the global situation, and discuss whether geoscience information content and systems are yet sufficiently mature to play a full role in shaping the national and international spatial data infrastructures which are currently being contemplated.