

Paper Number: 3854

OneGeology a future subsurface interoperable platform for geoscientists and users

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Towards a global coordinating mechanism for e-infrastructure for the geosciences.

In a world of ever increasing ability to collect vast volumes of data with ever greater fidelity that can be processed and analysed using high performance computing and high performance data there is a rapidly emerging need for a unified approach to managing, manipulating, analysis and visualisation of this information. The global OneGeology community has an opportunity to lead a global effort to develop a coordinating mechanism to develop a subsurface e-infrastructure for the geosciences.

The opportunity is to identify unifying challenges and concepts that a broad coalition of like-minded organisations want to contribute to solving because it is a real challenge for them now or it is something that they are already working on and would benefit from more minds to address.

OneGeology represents such a coalition so the question becomes is it timely and appropriate to build on the successes of OneGeology and to reshape it into a new form such that it become the forum and potentially implementation platform for addressing the scientific and technical challenges that we as technically and scientifically advanced organisations face in 2016 and beyond, building upon cutting-edge science and standards for a geoscience solution to these shared challenges.

There are a number of ways that this could be achieved. One is to identify a future forum to build a OneGeology Research or OneGeology Information Science portfolio where different contributing organisations would take the lead in developing a programme to address shared challenges-A series of research objectives in the Geoinformatics domain that will coordinate regional and local efforts globally.

One of these shared challenges is undoubtedly sharing a 3D understanding of underground space. It is something that many are tackling in small groups or with slightly different partners, including industry. 3D is a natural domain for geoscience, it is slowly becoming resolved at a national level but this could be parochial with a lack of interoperability. Indeed this is a similar challenge to that facing the geological community in 2007 over 2D spatial data and that OneGeology successfully addressed in the past.

This presentation will develop this discussion and present the first steps at building such a coalition under the banner of OneGeology and a shared project plan for subsurface 3D geoscience interoperability.

