Q: Why the Oracle database in an Open stack? A: OpenGeoscience is less about open source software and more about making data openly available and in open standard formats - free and without terms and conditions that restrict its use. We use a variety of commercial and open software to achieve this aim.

Q: what scale this data is available A: Our bedrock and superificial geology is available at 525K and 50K.

Q: if i want to work on around 400 sq.mt it is useful? A: Yes, but if you need more detailed data you can purchase a licence for further detail. See http://www.bgs.ac.uk/products/digitalmaps/DiGMapGB.html

Q: Is the gound level aquifer data is available on this site?
A: We have lots of groundwater data available, some of it is free:
http://www.bgs.ac.uk/products/hydrogeology/home.html?src=topNav

Q: What kind ESRI API you used for the web applications? A: We use the JavaScript Rest API for the Geology of Britain viewer

Q: How can one access this very important tools? A: http://www.bgs.ac.uk/opengeoscience

Q: is available for Ipad to? A: iGeology and mySoil are both available for iPad

Q: In order to make this happen, you obviously needed the engagement of scientific staff...from the collection (SIGMA) to the science language development. How did you deal with the culture change in order to implement this? A: Good question - that has been worked on for the last 20 years. Moving from a culture of data stored on spreadsheets on the desktop computers of individual geologists, paper records in their desk drawers. Promoting a central data model held in a central database, demonstrating that scientists can access their own data as well as that of their colleagues more easily from such a centralised system. Building a digital data collection system with the geologists centrally involved in the project to facilitate a move away from paper-based methods of data collection. Having got the information (or increasing amounts of it!) in to central databases, we could then make it available externally. As multidisciplinary science and collaborative working becomes increasingly important, the need to share data and describe it using published vocabularies so that users can understand it is increasingly understood. At this point, the culture change is well advanced, the benefits are understood and everyone is working in the same direction.

Q: How it has driven users to other information on the BGS web site. A: Access to the BGS website as a whole has increased substantially since the release of OpenGeoscience. See the graph in the presentation.

Q: How does our knowledge of geoscience help understand disaster hazards like earthquakes and landslides? A: Please see http://www.bgs.ac.uk/research/earth hazards.html

Q: Could you give an order of magnitude estimate of the budget invested in non-foss to build the infrastructure? A: I wouldn't know where to start! We've been working towards where we are today (centralised data with access and visualisation tools) for the last 30 years or more.

Q: Could you explain to what extent geostandards have been an enabler to this opendata initiative? Would this have been possible without geostandards? A: We have very much stood on the shoulders of Open geostandards such as WMS, WFS etc. These have provided us with a protocol with which to make our data available, knowing that users of all major GIS packages will be able to pick our data services up and read them in their spatial working environment - whether that be QGIS, ESRI or whatever. Similarly, software developers have been able to easily use our data and integrate in to applications alongside data from other providers as they are already familiar with the standards we are using to publish our data.

Q: At which point do does business have to pay to utilise the data A: This varies from dataset to dataset. As a general rule of thumb, field observations are free and interpreted information is licensed. But within that, smaller scale datasets are sometimes made freely available, but more detailed, larger scale data licensed. Sometimes a view service of the detailed data is made freely available (e.g. 1:50,000 geology), but the full dataset is licensed. Q: And with ArcGIS Online or your own ArcGIS Server? A: We use our own deployments of ArcGIS Server.

Q: How do you make 3D profile? By ArcGIS Server 3D extention? A: The cross section profiles of 3D geological models that we demonstrated where created by a piece of software we developed called GroundHog. It is java code that interrogates binary grids of 3D models surface layers.