OneGeology
Sharing geology on a global scale
(and a bonus....)
Ian Jackson
Coordinator
26 April 2012
Why is OneGeology important?
Locating and quantifying resources
Predicting and mitigating hazards
Supporting safe and sustainable development
Evaluating the impacts of climate change
Sorting out the data

- Many organisations hold rich geological data; especially geological surveys
- Difficult to find
- Difficult to access
- Difficult to understand
- Difficult to share - inside and outside the geosciences
- Not all nations are equal
Who cares?
The use case for OneGeology

• The challenges don’t respect national frontiers
• Geology needs to be joined up
• Geological data is not easy to get or use
• We need to share data and capability
OneGeology

- A project to make web-accessible geological map data worldwide
- Initiated by BGS in 2006 as a geological survey contribution to the UN International Year of Planet Earth
- World-leading example of liberating science data for the benefit of society
- Deploying cutting-edge web mapping technologies
- Now being delivered by 117 geological surveys worldwide
Objectives

• Make existing geological map data accessible
  – in whatever digital format is available in the participating country
• **Transfer know-how to those who need it**
• Adopt an approach that recognizes that different nations have differing abilities to participate
• Stimulate interoperability = data sharing
• **Stimulate harmonisation = scientific consistency**
An operational system - *not an experiment*

- Internet portal and catalogue allow discover, view, zoom, pan, interrogate, download…. and transfer to Google, or wherever
- Many data services: over 250 national and state geological maps
- Help desk and extensive easy to use documentation
- Users in research, education and commerce
- 25 million visitors globally when launched
138 organisations from 117 countries
How it works - the technology

- Result of 20+ years of GIS and Internet development
- State-of-the-art…but straightforward and open to all
- Distributed dynamic system – each nation/state serves (and retains IP of) its geological data
- Using open global internet standards we have developed
- User needs only an internet browser
More than 250 national and state datasets being served by geological surveys across the world

http://portal.onegeology.org
Raising the profile of geoscience

Geological mapping gets joined up

By Jennifer Carpenter
Science reporter, BBC News

OneGeology: New Map Strips Mother Earth Naked

Have you ever wondered what our world would look like stripped bare of all plants, soils, water, man-made structures? Well wonder no longer; images of the Earth as never seen before have unveiled in what is the world’s biggest geological mapping project ever.

Mother Earth gets undressed

A database of geological maps of the world has been made freely available.

Katrina Charles
The bonus

A trip to the best of breed
Digital field data capture
Mobile apps....
Infoterre and iGeology
Mobile apps – augmented reality