OneGeology
Sharing geological data and know-how

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The next 25 minutes

- OneGeology in one slide
- Stating the obvious
- The truth about geological map data .....globally
- OneGeology
  - What is it?
  - Use case
  - Funding
  - How does it work?
- Progress
  - Impact
  - Why has it worked?
  - What’s next?
- In summary
OneGeology in one slide
Stating the obvious: 
geological map data are essential to society
The truth about geological map data

- Rich data exists in every geological survey
- Difficult to find
- Difficult to access
- Difficult to share - inside and outside the geosciences
- Not all nations are equal
Data from Surveys was not interoperable
Data from Surveys is still not harmonised
OneGeology is.....

- 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 116 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
The use case – who cares?
Who funds it?

Voluntary geological survey staff and data ….but also

Additional support for coordination and data portal

€3.25 million for 20 nation OneGeology-Europe project 2008-2010
(supporting the European SDI -INSPIRE)

$700 000 for Geoscience Information Network for 50 US State geological surveys, started August 2008
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 serves its data, or works with a “buddy” survey
• Open global G.I. standards – Web Map Services and Web Features Services
• Portal to view, zoom, pan, interrogate, download… and transfer to Google
• User needs only an internet browser
138 orgs from 116 countries
Data served by geological surveys across the world

http://portal.onegeology.org
OneGeology-Europe
Evolving from national and small scale to large scale, local, applied and flexible
Transfer know-how to those who need it

Technical workshops: in-country and regionally
Transfer know-how to those who need it

Web resources
Raising the profile of geoscience

Geological mapping gets joined up

By Jennifer Carpenter
Science reporter, BBC News

OneGeology: New Map Strips Mother Earth Naked

Friday, 1 August 2008, 9:16 am
Press Release: UK Government

Mother Earth naked – a modern masterpiece

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

Technical

• Launched at a time when interoperability technical platform available … but…..

• Initial lack of awareness and experience in interoperability amongst global partners

• Global/major scale implementations did not exist

• Geological map data is more interpretive and complex than most other spatial domains

• Geologists need considerable scientific discussion to agree on common features and standards
What were the challenges?

Cultural and organisational

- Global implementation – many different cultures and languages and states of progress
- Sensitivity over map ownership and copyright
- Different Survey data access models
- Reluctance to disseminate information that is not “perfect” – so OneGeology’s timescale clashed with usual geologist / Survey timescales
- Sustainability after initial enthusiasm and launch
Why has OneGeology worked?

- A short simple mission and vision, coupled with 3 simple objectives
- An uncomplicated initial proposition (WMS)
- Progressively move to more sophisticated functionality and data (WFS)
- Inclusivity: all geological surveys welcome – so adopted an approach that recognizes different nations have differing abilities to participate
- Minimal intrusion into local systems
- A pragmatic approach to coordination and governance – those prepared to lead drive it forward
Why has OneGeology worked? (more)

- A “let’s do it, not excessively strategise about it and discuss it” ethos
- Pre-existence of international network of geoscientists and geological surveys
- A small group of motivated people who share a common vision;
- A “buddy” system to help those who need it
- A genuinely dynamic website aimed at all
- Putting significant effort into outreach and media profile
- It was the right project at the right time (eg readiness of geological surveys, OGC standards & INSPIRE)
What’s next?

- Increase the quantity and quality of the data & services
- Advance geoscience language standards
- Transfer more know-how through workshop support and improved cookbooks and web systems
- Move OneGeology to not-for-profit incorporated status and ……
- Ensure the progress OneGeology has made is sustained and sustainable
Thank you....

to all the geoscientists, information experts, managers, communications people around the world, without whom OneGeology would still be an idea

www.onegeology.org