Date

Thursday 19 July 2007

Title of session

Plenary: Future of NMOs - Replaced by NSDIs or Commercial Interests?

Name of presenter/chair

Chair: Vanessa Lawrence, Director General and Chief Executive, Ordnance Survey Panel: Željko Bačič: Director, State Geodetic Administration, Croatia Lam Joon Khoi: Chief Executive Officer, Singapore Land Authority Mohammed Al Zaffin: Director, GIS Centre, Dubai Municipality, UAE Dozie Ezigbalike: Chief, Geo-Information Systems, UN Economic Commission for Africa Mark Corey: Assistant Deputy Minister, Natural Resources Canada Chris Pigram: Deputy Chief Executive & Chief, Geospatial & Earth Monitoring, Geoscience, Australia

Name of rapporteur

Karen McGrath

The Chair, Vanessa Lawrence invited the panel to put forward their views on the question posed; thereafter the audience would have an opportunity to challenge and ask questions.

Zeljko Bacic

NMOs will continue to exist as long as their employers do but what NMOs will be responsible for in the future is another question, so NMOs need to clearly define their core business. The biggest challenge will be to change and accept new roles; activity may become more politicised, in a positive way, so most NMOs will have to deal with politics more than they are doing today.

Lam Joon Khoi

NMOs will continue to be relevant in society although functions and some responsibilities may change over time. e-government as a form of serving the public using the internet S has a primary role in this doesn't replace Govt contuse to server work together to break down barriers and provide an integrated solution to the public NMO can do the same using advanced tech & complimentary software to add vale and be relevant to society

Mohammed Al Zaffin

Due to technology making data available from a number of private sector sources, Dubai established a GI Centre in 2001. The NMO still exists to cater for government organisations but in partnership with the private sector. There are GIS laws which define the roles of private, other government organisations and the GI Centre. The law states that all government projects, research and official information comes from the GI Centre; private developers however are free to buy their data from any source.

NMOs will continue to exist as long as governments want them to but they have to change policy and work closer with the private sector and be faster at delivering data.

Mark Corey

In answer to the question, it depends on how relevant NMOs make themselves to government.

Technology and delivery of information (GPS; Google Earth) has changed dramatically over the past 8-10 years. NMOs should no longer think of themselves as map makers and surveyors but think about how people can use the information – it opens up new areas.

It is important for NMOs to work with Google Earth, Microsoft and others to service the mass market. At the end of March 2007 NRC abolished its licensing and royalties, they now provide data for free. NRC is working with Google Earth to ensure that the best quality data is put up on their site. It was stressed that NRCs decision to move to a different model could not be compared to Ordnance Survey because the scales are different – NRC are still charging for cadastral in Canada.

As technology changes NMOs need to be awake to how it impacts their organisation. They need to be prepared to make decisions to withdraw from activities where it makes sense to do so and be flexible to meet changing demands and opportunities. NMOs need to be at the cutting edge, customers will only come to NMOs if they have better technology than anyone else. If NMOs are to have a future they will be doing detailed very accurate work; working with people like Google Earth to serve the mass market and serving the professional market but doing so more efficiently.

Dozie Ezigbalike

Governments change slowly therefore there will always be an NMO in every country in Africa. It is important to change from the concept of mapping as a stand alone activity to the concept of data collection activity as the source of a knowledge management continuum; organise maps to be produced as and when required - think about data bases in all activities .

Chris Pigram

NMOs have a future provided they remain relevant and seize the opportunities they are faced with.

NMOs are well positioned to provide the framework to help understand what has happened and how the planet has responded to the results of climate change. The way in which NMOs will respond to this will differ to the models we have seen to date. A clear message has come out of the Conference; the private sector is providing fit for purpose geographic information and people are using it and it is a revelation as to how strong the user provider input to content is becoming. NMOs role will continue to provide information back to the legal system they operate in advisor in relation not loose but strengthen respond to issues of the day and whoever masters will ensure that NMOs have a future. Geoscience Australia has gone through many changes but it still exists because it has been responsive, agile, capable of adapting, taking the best of new technology, maximising opportunities, keeping focus and remaining relevant to political masters.

The Chair, Vanessa Lawrence thanked the panel for expressing an excellent summary of their views and opened up to the audience: **Questions, answers and comments that followed are detailed below.**

Following the Q&A session The Chair, Vanessa Lawrence summed up: We have heard many wide ranging views during the conference, different business models, advice and suggestions for how we can change. Something we all need to be aware of is what our role is in our countries and the role that other organisations play, each of whom are agile enough to evolve, change and develop their business models quickly, within weeks. It is important we don't get wrapped up in enthusiasm and change focus; sustainability of the relied upon work necessary to be done by NMOs is fundamental. We need to keep pace with evolving data uses and make sure we understand the ownership of what we do and protect our interests. NMOs exist to be trusted advisors and maintainers, the issue is how we do this working within the changing evolution; we are right at the hub of these exciting times.

Thanks to panel.

Questions & comments	Answers
Prof Cowen (University South Carolina, USA): Asked for the Chair, Vanessa Lawrence's view	Vanessa Lawrence: Agreed that NMOs need to be relevant to their customers. It depends on what the organisation is tasked to do and how it is tasked to do it as to what role to play in own country. Ordnance Survey is a framework on which others add their own data to make decisions. It is all about information; in reality NMOs are providers of relevant information for their countries. Some activities will change, change drivers are already with us but NMOs have to be alert, we are no different to any other business and customers are becoming more discerning about getting value and we need to address this. All NMOs are part of a structure – NSDI, SDI, Location – whichever term is chosen; location and place are vital to the decision making of all government or businesses for land management, environment management, climate management, NMOs are just one part of an SDI. Clarity is important. The commercial world and public sector both have a role; the cross over is much easier where there is a clear definition of what each is trying to do. Ordnance Survey have been clear that they are not in the value added application market and now have 500 partners who add value to our data. NMOs have to work hard for greater relevance in our nations and need to make sure people understand we are relied upon.
Nick Land (EuroGeographics): – comment interesting that the question was posed in a negative way, NMOs need to be more optimistic about the future, although fully understand it was done to challenge. Nick Land: We have heard a lot about NMOs and NMCAs where the N is national but little about working across country borders. How are NMOs making themselves relevant in a network to address issues that don't stop at national borders?	Mark Corey: Gave examples at federal and international level. Previously duplication of effort with the provinces, now jointly created and funded (Geobase) a more efficient and effective way of working. Work closely with USGS (International Boundary Commission) and share border information. Never have people collecting same thing twice, makes sense to share it.

	Mohammed Al Zaffin: Committee on standardising SDI for small scale mapping; we are talking on a national level, linking electricity and other road network information. Lam Joon Khoi: Clarified he was not representing NMO as the function falls outside of the Singapore Land Authority. Not aware of any integration or sharing of mapping information in Singapore. Željko Bačič: Integration in Europe requires that data across borders is made available and standardised to achieve the level set by the Commission and the Union; INSPIRE is the response to that need. EuroGeographics and NMOs identified the need for this almost a decade ago.
Chris Pigram: passed Nick's question back to him – is it essential for NMOs to do it? People who provide the integration come from the private sector who ignore the boundaries and do what they wish to do.	Nick Land: This is an option but we need to understand how we should do this and what the impacts would be on NMOs. In Europe, we have the mapping and cadastral agencies working together to set the standards and define specifications; in some cases this has gone as far as developing Pan European products and services. Beyond this however is a bigger role for the private sector and the challenge is how we work with them across national boundaries and of course tackle the issues of pricing & licensing.
Juan Vidal (Chile): When the computer was first invented everyone thought that the role of the secretary would become redundant but the opposite happened. Now every company will have their own satellite, even Chile is buying one. The future for NMOs is positive, maps will be in individual use, Google Earth makes mapping available for everyone a reality. The main role of NMOs is to provide and maintain good geo databases for the whole country.	
Fraser Taylor (Canada): Serves on the Scientific Committee for Antarctic Research which is the best example of international cooperation in the creation of geospatial data in existence. All nations actively involved in creating the Antarctic spatial data infrastructure, did so for the	

common good in a non competitive fashion, with all territorial ambitions suspended (British Antarctic Survey, Australia, New Zealand, Germany and a number of others). Created under the Antarctic Treaty where every nation agrees to make scientific information available free.	
Karen Siderelis (USGS): An observation, throughout the conference heard that the role of NMOs in future does not include value added applications, which are better left to the private sector. We ought to think about our role as doing more than managing geospatial information for our countries. NMOs have probably the largest concentration of geospatial knowledge in one organisation; NMOs can be the nucleus of a nation's brain trust on appropriate use of geospatial information and address issues as fitness for use. Would the panel agree and is this an appropriate role for the future of NMOs.	Chris Pigram: I Agree. The role in Australia is precisely that; we are the government's advisor on geosciences and will continue to be so subject to relevance and performance. Mark Corey: Depends – there are value added applications, related to the role of government where two parts of government collaborate and provide a good example for the need for more horizontality. Commercially, leave this to others who are better than us at serving the mass market and who have more money to do so. Non commercial activity is clearly a role for government; NMOs should stick to the basics making sure all has standards and line up. Dozie Ezigbalike: In the case of Africa, it is a mixed answer. There are few advanced markets in most countries, so no viable private sector - government is it. Mohammed Al Zaffin: NMOs are more than information providers they make the standards and act as consultants for the government. Lam Joon Khoi: Experts in government are sometimes under used in Singapore. There are various agencies; synergy can be created by aggregating demand and getting a common solution in cost saving and greater efficiency in use of the data. NMOs provide expert advice to government in the use of mapping data. Željko Bačič: Services should be efficient spatial data is the backbone of services not value added but a prime task of NMOs, not value adding. It is difficult to

	imagine future applications for data so it should be left the imagination of the private sector. Dozie Ezigbalike: NMOs main role is to provide geo-information. Sometimes other departments get funding from outside agencies to develop a project; rather than go to the NMO for the data they include in their funding proposal their own digitising - should the NMO insist they are the source for data even though often it is far too detailed/accurate for requirements.