

Joakim Ollén (National Land Survey of Sweden) welcomed delegates.

Xavier Lopez (Oracle Corporation, USA) presented the paper “**The future of GIS: real-time, mission critical, location services**”

Market observations:

- Location becomes ubiquitous
- Customers are seeking to rationalise the cost of previous investments while increasing data integration
- Location is no longer the exclusive domain of GIS vendors – it is becoming more mainstream as greater numbers of customers use location

Enterprise mapping can help to consolidate workflows. Standards of various types are essential to make systems interoperable.

Dietmar Grünreich (Germany). What about the concept of portals?

Xavier Lopez. Portals are an interface, web based, into corporate data – an IT concept that definitely provides a way forward for GIS. In order for it to happen though there is still a need for IT standards. It will be impossible to integrate GI technology without them.

Dietmar Grünreich. When will the things discussed be available?

Xavier Lopez. The technologies I have described in my paper are all existing technologies, although some of them may be new to some of you here. What is clear is that you cannot buy all you need for a service from one place. Wireless service providers, for instance, have no time to develop databases of information for their services and therefore will need to rely on the NMAs to provide for their needs.

Fraser Taylor (Canada). The implementation and cost is a challenge to many agencies.

Xavier Lopez. Costs are high but it does depend on what you are trying to build. You may be able to reduce other costs by investing in this technology and it may be revenue generating in itself.

Bengt Kjellson (UN ECE Working party on land administration) presented the paper “**Future perspectives on cadastre**”

Cadastre, land registration and mapping will share much, and many organisations perform more than one of these functions.

Land administration will integrate land registration and the cadastre.

Trends will require a new definition of roles. Information and e-business are the main drivers. There is less focus on traditional activities. Initiatives like INSPIRE will influence update frequency. Markets will become integrated, and there will be much greater need for information about the environment, possibly to the level of individual properties.

Less tax funding will be available to fund land administration.

The world is changing faster and faster; land administration will not be immune to the broader trends. Customer demands must be met and better use be made of resources. Cross-border working will need to be a more significant part of the future.

Yoshihisa Hoshino (Geographical Survey Institute, Japan) presented the paper “**Steps towards digital Japan**”

Digital Japan aims to create an SDI and provide access to data for such purposes as environment and disaster prevention. Digital Japan will be realised by integrating and sharing distributed data based on framework data. It will also include facilities for searching, sharing and analysing data.

It is essential to make information available to public.

Session 8: Seeing around the corner

Peter Woodsford (UK). How much use do the mobile phone applications make of GSI data?

Yoshihisa Hoshino. Other products are used. These are not accurate maps as such; they are more diagrammatic. They have ultimately been derived from GSI data but are highly modified.

Vanessa Lawrence (UK). Which other bodies contribute data?

Yoshihisa Hoshino. Every ministry provides some data but also local bodies and even the private sector. It is important that they are seen to be able to work together.

Ed Parsons (Ordnance Survey, Great Britain) presented the paper “National Mapping Agencies – Technology driven businesses?”

NMAs are typically very good at using new technology – at least when compared to other government departments.

Internet has changed everything; the customer is king

Production needs to be oriented towards databases rather than map tiles.

1st generation: home built; limited attribution; map production

Internal perspective: Internet has enabled a reduction in distribution costs. How can it help to reduce production?

Customer perspective; tech is in the hands of the customer. NMAs need to be in a position to respond.

Napster example. 6 weeks – widely used music-sharing software. Illegal piracy – but offered new functionality relating to music (buy single music tracks; try before buying; build own albums). Provided tools to exploit digital music more fully.

What are the implications for mapping?

- NMAs typically sell maps on a sheet by sheet basis. Customers are likely to have increasing requirements for access to small chunks of data.
- Try before you buy in software. What facilities are NMAs offering customers before they buy?
- Customisation. Mobile phones can be extremely customisable – including the user interface. Digital data users are likely to have different requirements for
- Repurposing data
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Customer will demand technology and has expectations from their experiences in other sectors. We will need to respond – otherwise others will!

Denis Johnston (I4B, UK) presented the paper “The future is not what it used to be!”

Technology – and information availability changing very rapidly.

Technology is growing exponentially – e.g. Moore’s Law. It is subject to major changes that trigger wholesale changes throughout the industry.

Predicting the future is almost impossible.

Key trends:

Miniaturisation – silicon chips are doubling in capacity every ten years, optical fibre capacity is doubling every year but the ability to put stuff in it to fill the capacity is lagging behind.

Attitudes – People’s attitudes to technology have changed – much more open to it, ready to use it – and are demanding to use it!

Interfaces – terminals are appearing in many different forms e.g. wearables, mobiles, implants etc.

However – ordering consumables via technology is very easy, is global. However, you still have to wait for the delivery!

General discussion

Session 8: Seeing around the corner

Peter Woodsford (UK). Wouldn't random background radiation stop Moore's Law ultimately?

Denis Johnston. All barriers seem to fall. The unbelievable always appears to occur!

Peter Holland (Australia). Given the weight of paper we will be carrying back from this conference isn't it about time someone perfected teleportation!

David Maguire (ESRI) On the subject of user faces, ESRI are re-introducing command line to ESRI software was well received by those disenchanted with the GUI interface! Much can be learned from consumer applications.