Appendix B

EuroGeographics General Assembly
Director General's Knowledge Exchange Network

Monday 2 October 2017
Disruptive Technologies

Technologies

- For many members, work focuses on exploration and understanding disruptive technologies, such as artificial intelligence and Blockchain, at this stage. Safety and security were key considerations.
- Members questioned whether apps and digital platform were really new or disruptive technologies having offered for them for some time. Some wondered if apps were a way to implement INSPIRE.
- Members questioned whether the technology was being development to solve a specific problem or whether users were trying to find problems for the technology to fix.
- A number of members are using drones for operational purposes, particularly in relation to emergencies and risk management. In some countries, use is prohibited in populated areas and questions of trust and data use were also raised.
- Augmented reality was being used by some members in the military sector, particularly for training of pilots.
- Smart Cities are key areas of interest for NMCAs.
- Standardised technology is necessary and data needs to be machine readable.
- In terms of automated cars, NMCAs need to first understand how they can support development with potential to play a critical role in data assurance. A further challenge is to keep this information up to date quickly.
- Collaborations between the public and private sectors as well as citizens is important but should be a two-way process: There is a trend for opening public data but it is time to discuss how the private sector can share data too.
- There are challenges associated with adopting disruptive technologies, especially for staff development and skills.

Digital Ethics

- An ethical code of conduct for the use of geospatial data would be welcome – is this something EuroGeographics could consider?
- NMCAs were not clear if they had a role to play in new data protection legislation due to be implemented in May 2018.
- What is personal data? With 'big data' nearly everything can be matched to a personal record so is everything personal data? What is the implication of this and how many organisations can really comply?
- Transparency is very important and there is a feeling citizens place greater trust in the public sector than the private sector.
- Technological development must align with processes and legislation.

Business Models

- Every organisation is an ecosystem in which several types of business model coexist. Nevertheless, the ownership of the basic data is the core element.
- The question is how to generate revenue from legal and reference data. One of the answers to this is who do we want to compete with and how? Could providing a better service be key?
- NMCAs value is in their information and knowledge, not just the raw data: users want tailor made products and services and one-to one relationships.
- Collaboration in data capture is important, examples of using on-the-ground services such as postal services and police officers.
- Open Data is a pre-condition for a new economic model in which the use of public data is much higher, however someone has to pay for data capture and creation to maintain the quality.
- NMCAs, though mainly funded by public money, are also requested to generate some level of income, which makes it hard to promote open data.
- NMCAs may not be commercial organisations however, and have to think about the tax payer and the public good too.
- With an ICT approach, there are no more map scales. What exists is one map with millions of mapping attributions.
- Is there a role for NMCAs to act as data brokers, which may require a new business model?
- NMCAs unique selling point is authoritative data. Standardisation and procedures for ensuing accuracy and quality are important.
- Creation of new services and new environments will give rise to new business models – and it's this which needs greater consideration in the EuroGeographics community
- It is difficult to understand how NMCAs can implement the digitalisation model (eg Spotify) and this needs further discussion.

Governance Models

- Many NMCAs continue to operate in a traditional centralised model, although there is recognition that it is increasing important to be federated.
- Smart cities can be seen as a catalyst to becoming more decentralised.
- Some NMCAs use different models for different aspects of their work.
- Whatever the model, the important thing is to be interoperable!
- There is a possible role for NMCAs to bring data back and provide authority in a decentralised model.
- There are life cycles for governance models (centralised -> federated -> decentralised and back again)
- Improved collaboration with the private sector is needed and this leads to changes in governance models.
- Key task - whatever the model - is to be interoperable!

Tuesday 3 October 2017
Policy Influences

Sustainable Development Goals

- Members recognised that NMCA data has a crucial role to play in achieving and monitoring the SDGs.
- Aligning National Spatial Data Infrastructures with the SDGs is a consideration.
- Most NMCAs are involved in SDI initiatives which bring government data together, but in some countries this is more co-ordinated than in others.
- Will additional investment be required to collect the data required?

Data requirements in dynamic times

- INSPIRE is not mandatory in all countries, bylaws are needed to ensure increased cooperation between agencies.
- Centres to promote the use of spatial data are being introduced in some countries and in others, the academia community is being engaged.
- Training, evaluation and feedback is important.
- Technological changes are not the determinant factor, they will always happen – managing people and organisational change is key.
- NMCAs are different from big commercial data providers. They are independent, they cover the whole country and provide quality data – all help to build the trust of users.
- NMCAs are very strong where it comes to information that is not visible from above, such as legal boundaries and underground infrastructure.
- If NMCAs do not release data, users will look to other sources and alternative solutions.
- Can NMCAs meet the demands of all users or should they focus on key stakeholders?
- NMCAs must convince people to use their data by promoting the advantages and benefits. to users. There is huge value both politically and for citizens in making what they have available – whatever the accuracy or quality level - as it is the official data.
- Communication is key, but are we using too technical a vocabulary? People understand ‘maps’ but do they know what ‘geospatial’ means?

The challenges in integrating statistics and geospatial data

- A number of NMCAs already have good working relationships with their National Statistical Institutes.
- Further integration is crucial for this, eventually with a single-point data sharing interface.
- Could a policy on integration and use be developed?
- The combination of geospatial and statistical data is powerful so how van its use be managed ethically? Is there a role for regulation or could different levels of access be a solution?
- Standards have helped agencies work successfully together.
- UN-GGIM has agreed and issued the Statement of Shared Guiding Principles for Geospatial Information Management: http://ggim.un.org/docs/meetings/GGIM5/statement%20of%20shared%20guiding%20principles%20flyer.pdf

European Space Policy

- Earth observation data is important but also needs in-situ data from NMCAs.
- NMCAs use space data in their work. It complements the work in Cadastre and other domains.
- Cost can be an issue if NMCAs require high resolution images.
- The use of space data is very important to improve NMCA data and offer new products and solutions.
- NMCAs could use their role as a client but also their collective voice through EuroGeographics to further contribute to the space data agenda.
- There are public concerns over privacy and the ways in which the data will be used.
- A huge amount of space data is available, NMCAs must define the precise purposes for which it can aid their work.
- Examples of best practice for the use of earth observation data would be useful, providing guidance on how to maximise benefits from it.