The European Location Framework – *state-of-the-art* technology to address fundamental GGIM issues

Olaf Østensen
Norwegian Mapping Authority
ISO/TC 211 chair
Which GGIM issues?

- definition and modeling of fundamental geospatial data themes
- authoritative data
- data sharing
- institutional arrangements
- adoption of standards
- and more ...

*evidence-based decisions for sustainable development require all this!*
The European Location Framework is a technical infrastructure which delivers authoritative, interoperable, cross-border geospatial reference data for analysing and understanding information connected to places and features.
The European Location Framework creates a single point of access to core referencedata.
The ELF thematic domains

Cadastral Parcels
Addresses
Administrative Units and Statistical Units
Hydrography and Sea regions
Transport Networks
Geographical Names and Populated places
Elevation
Land Cover and Vegetation
Buildings
Protected Sites
Miscellaneous other content

modelled using international standards, harmonized, edge-matched across national borders
State-of-the-art modeling using international standards

precise data definitions – a pre-requisite for evidence-based decisions
Two ELF platforms

ELF Basic Platform: Reference Data & Services
- Geo Product Finder
- ELF OSKARI
- NMCA data
- NMCA data
- European data
- Other Reference Data

Industry cloud service platform
with additional functionality and support

• standard download service (WFS)
• incremental updates
• basemap (background map – tiled WMS)
• geolocator (addresses, place names, admin units)
ELF, not just a project – shall create a sustainable business model
Open data – restricted data

• ELF respects national data policies, but
• develops harmonized licenses
  – free and open license
  – restricted license
• develops harmonized price models
Lessons learned – what can be lifted to the global scene?

- identify core use cases – which problems to solve?
- model fundamental data themes using international standards
- create principles for data sharing
- create standardized web service access
- utilize modern cloud techniques
Global data models – a few more words ...

IT ALWAYS SEEMS IMPOSSIBLE UNTIL IT’S DONE.

NELSON MANDELA
ISO 19152:2012
Geographic information -- Land Administration Domain Model (LADM)

Abstract
ISO 19152:2012:
defines a reference Land Administration Domain Model (LADM) covering basic information-related components of land administration (including those over water and land, and elements above and below the surface of the earth);
provides an abstract, conceptual model with four packages related to parties (people and organizations); basic administrative units, rights, responsibilities, and restrictions (ownership rights); spatial units (parcels, and the legal space of buildings and utility networks); spatial sources (surveying), and spatial representations (geometry and topology);
provides terminology for land administration, based on various national and international systems, that is as simple as possible in order to be useful in practice. The terminology allows a shared description of different formal or informal practices and procedures in various jurisdictions;
provides a basis for national and regional profiles; and enables the combining of land administration information from different sources in a coherent manner.
ISO 19160-x on addressing

Address user group is almost unlimited

- Taxation
- Transport
- Route planning
- Car navigation
- Real estate
- Location services
- Public administration
- Statistics
- Emergency services
- Insurance
- Health care
- Gazetteers
- Postal services
- Yellow pages
- Population register
- Marketing
- Utility services

Uses addresses as a common reference for identification and for linking data from different sources...
IHO’s S-100-series
The Universal Hydrographic Data Model

- 3D & Temporal
- Bathy ENC
- Inland ENC
- S-10x
- Nautical Pubs
- S-101
- Next Generation ENC
- Grided
- Web Services
OGC WaterML 2.0: Part 1: Timseries

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Why not start now!

Thank you!