



UN-GGIM | United Nations Initiative on
Global Geospatial Information Management

THIRD HIGH LEVEL FORUM ON UN GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

Session 4 Science, Technology, and Innovation to Measure and Monitor Progress
Leveraging the Technology Revolution

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

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Norwegian Mapping Authority
ISO/TC 211 chair





Which GGIM issues?

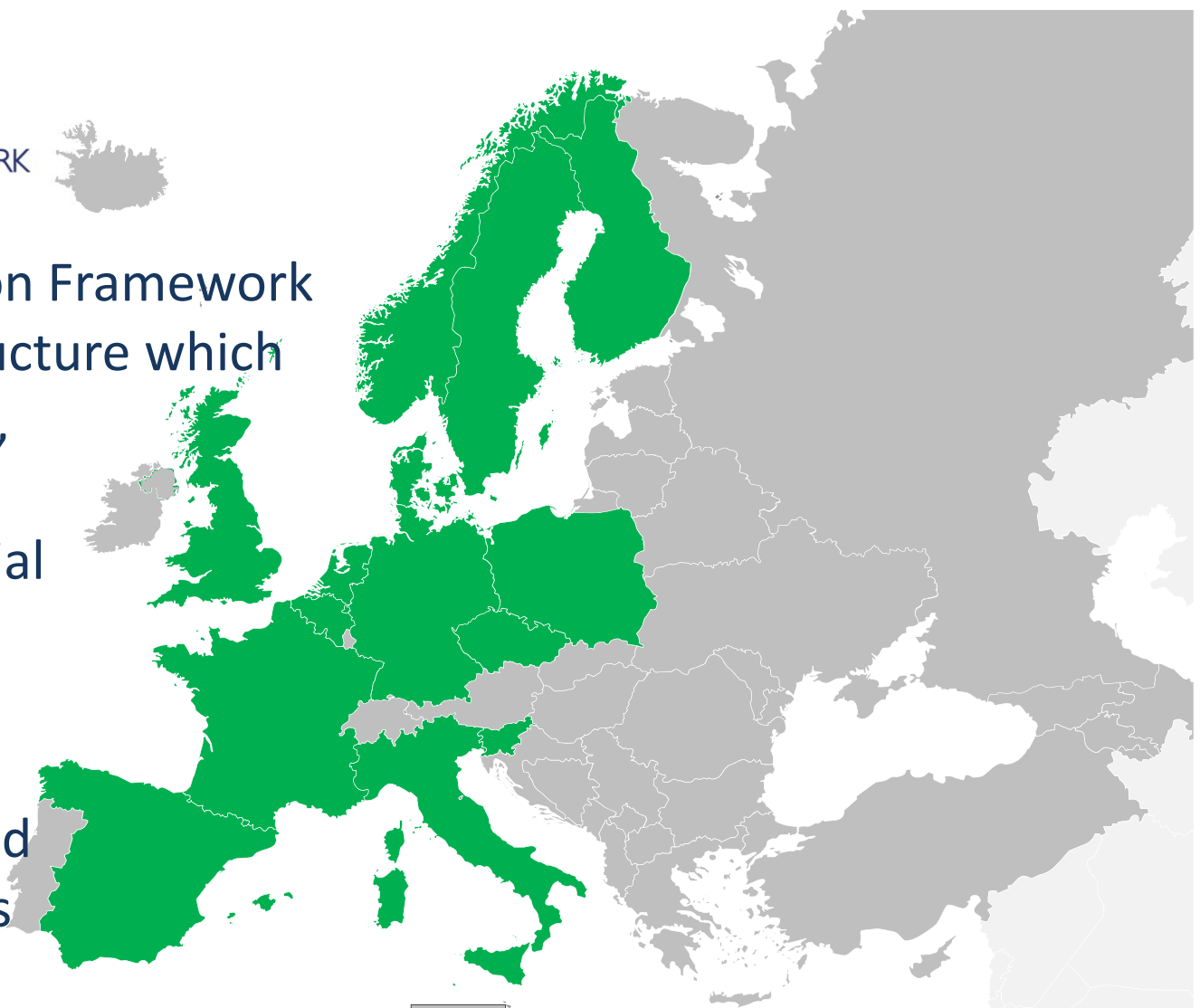
- definition and modeling of fundamental geospatial data themes
- authoritative data
- data sharing
- institutional arrangements
- adoption of standards
- and more ...

***evidence-based decisions for sustainable development
require all this!***



ELF EUROPEAN
LOCATION
FRAMEWORK

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



Malta



The European Location Framework creates a single point of access to core referencedata

ELF base
platform



ELF cloud
platform



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

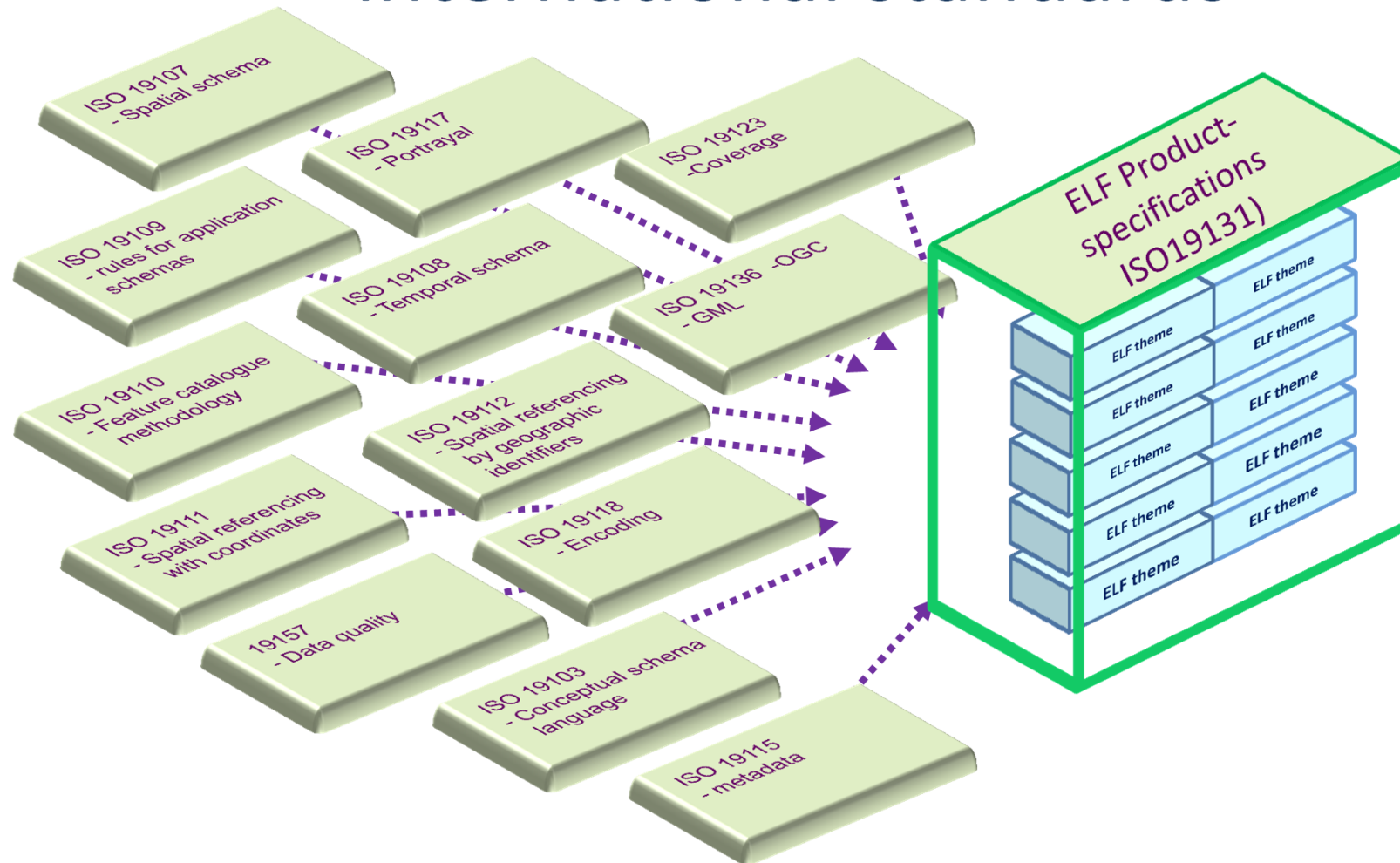
Protected Sites

Miscellaneous other content



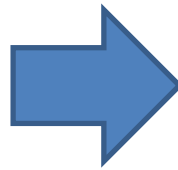
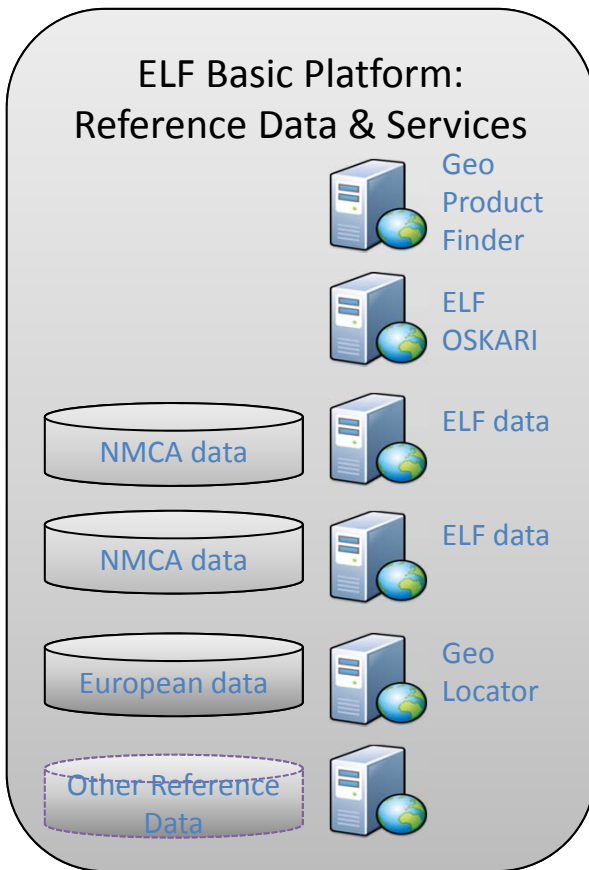
***modelled using international standards, harmonized,
edge-matched across national borders***

State-of-the-art modeling using international standards



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

Two ELF platforms

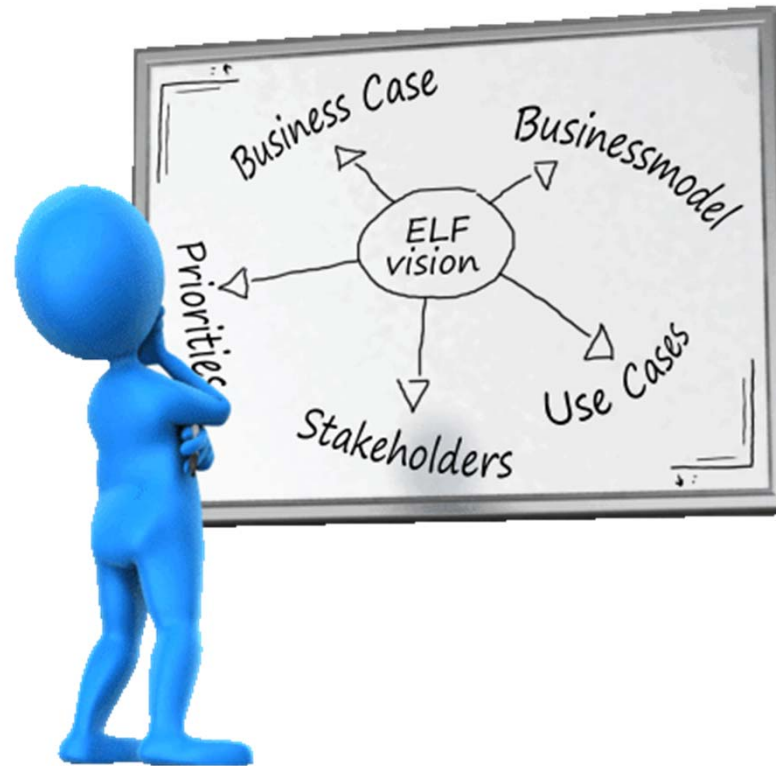


- **standard download service (WFS)**
- **incremental updates**
- **basemap**
(background map – tiled WMS)
- **geolocator (addresses, place names, admin units)**



**Industry cloud service platform
with additional functionality
and support**

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 LADM

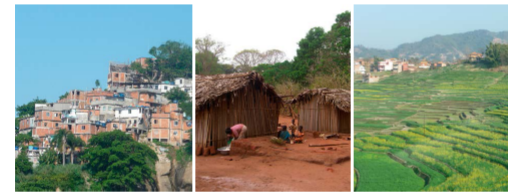
ISO 19152:2012 Geographic information -- Land Administration Domain Model (LADM)

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.



Fit-For-Purpose Land Administration

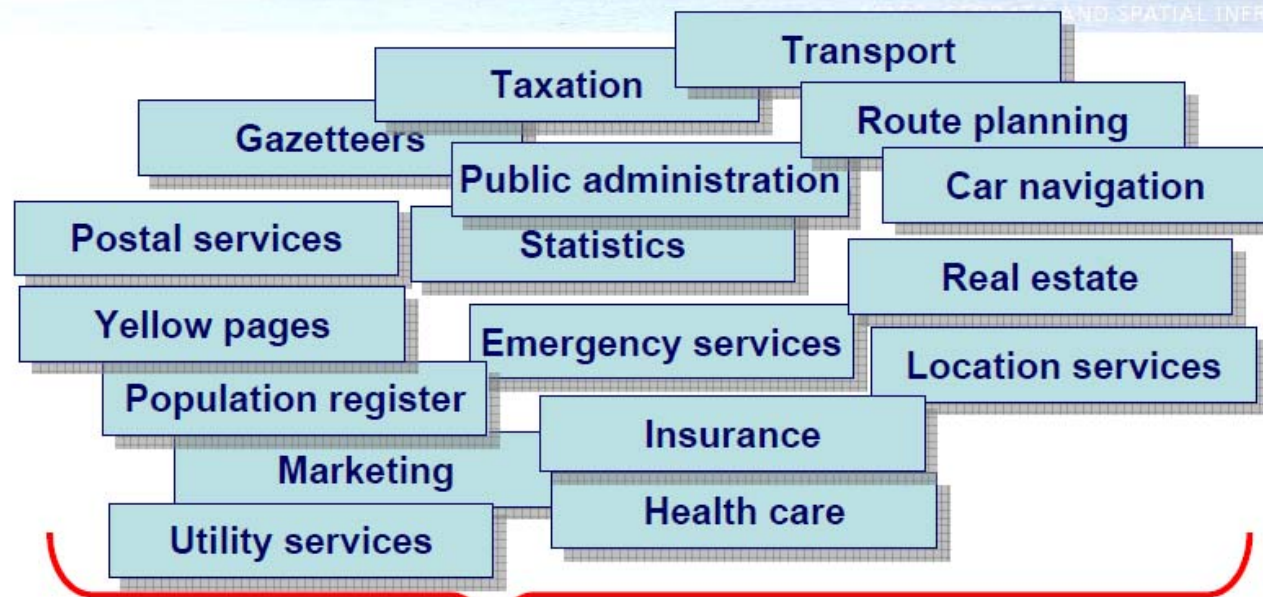


JOINT FIG / WORLD BANK PUBLICATION



ISO 19160-x on addressing

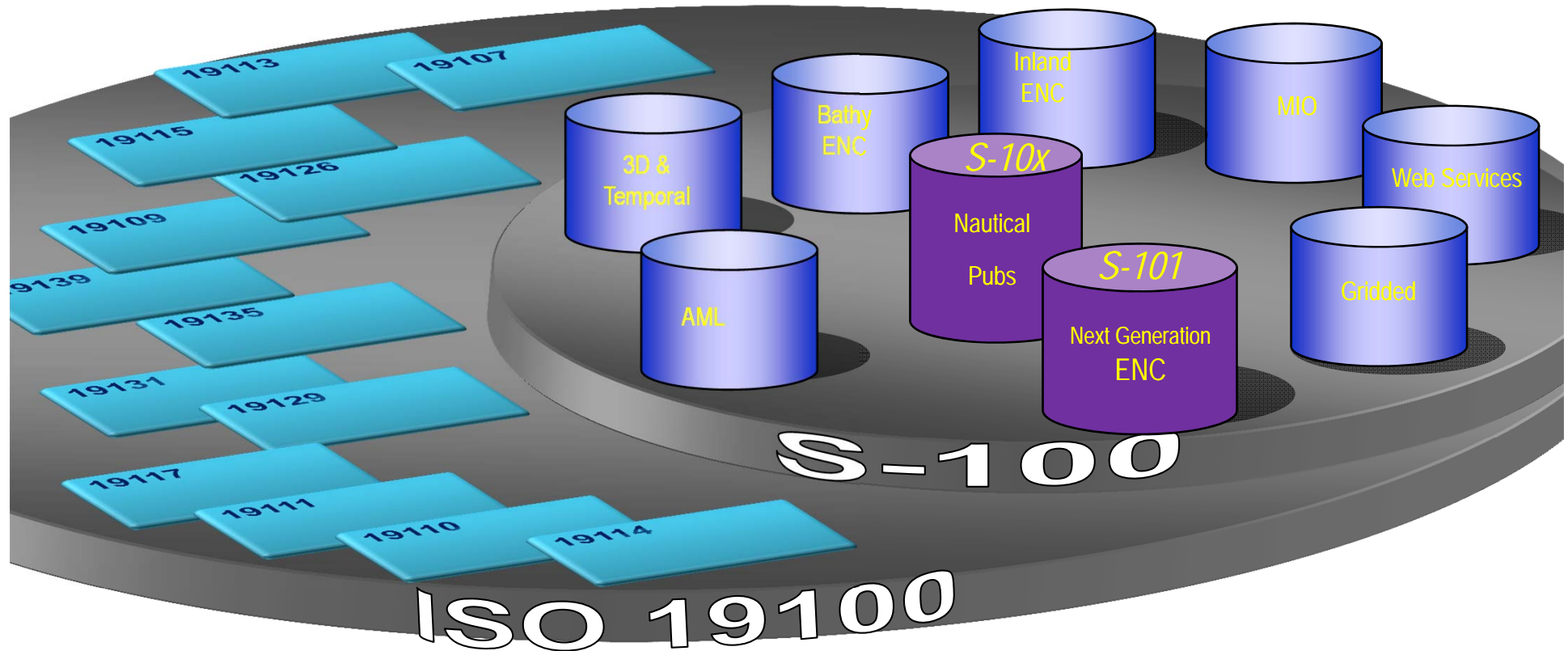
Address user group is almost unlimited



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



OGC WaterML



Why not start now!

Thank you!