

INSPIRE KEN – 13 December 2016

Progress of UN-GGIM: Europe Working Group A on Core Data

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Plan

- Introduction
- Objectives of the working group with respect to INSPIRE
- Phase 1: select core data themes
- Phase 2: specify core data
- FAQ



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Introduction



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Background and purpose

- Aim of Work Group A
 - to propose core geospatial data for Europe
- Definition of 'Core Data'
 - the minimum set of authoritative geospatial data needed to meet requirements common to member states



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Organisation

- 15 European countries
 - Austria
 - Belgium
 - Finland
 - France (chair)
 - Netherland
 - Switzerland
 - Turkey
 - Germany
 - Greece
 - Poland
 - Spain
 - Sweden
 - UK
- Observers
 - JRC, EEA, EuroSDR

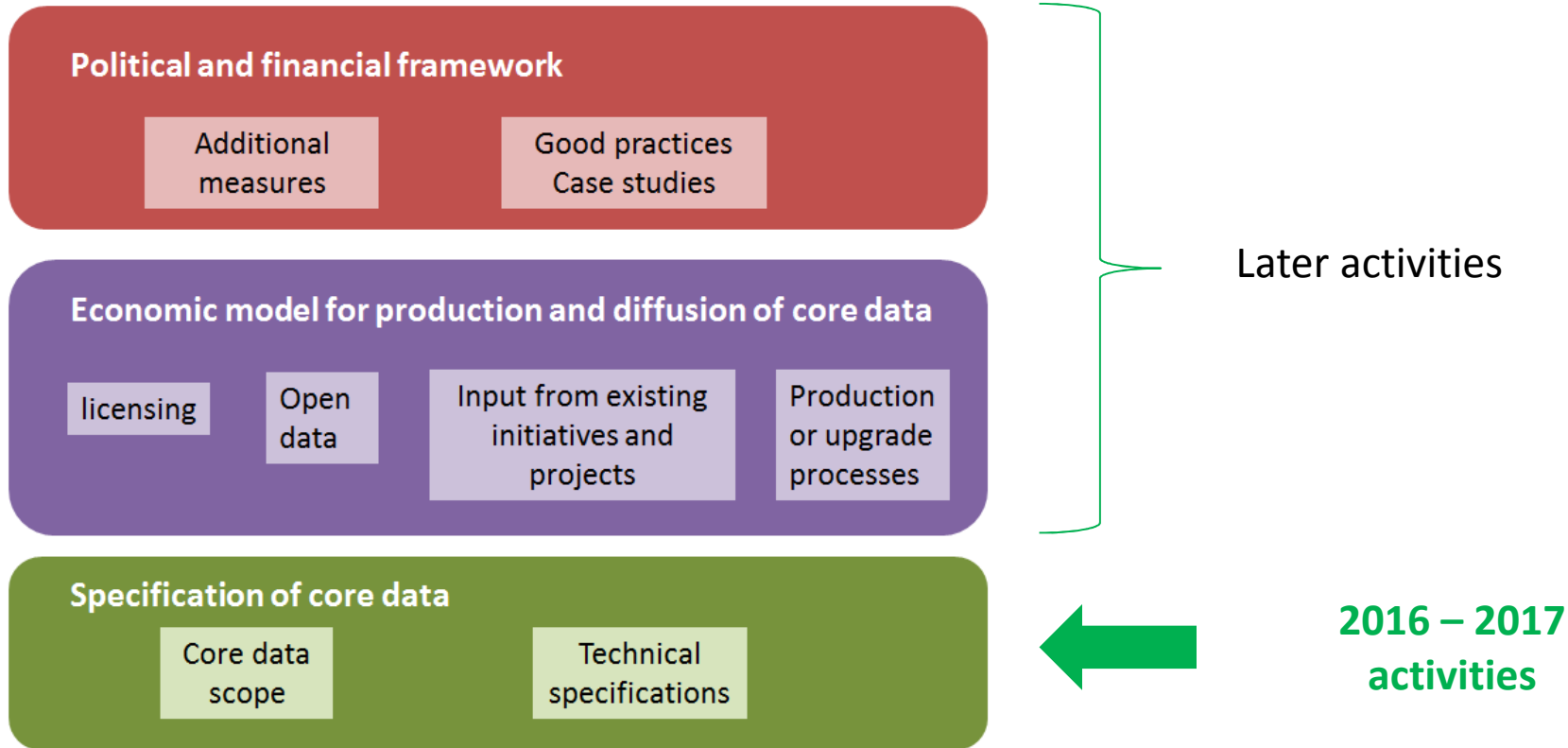


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WG A work plan



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Objectives of the working group with respect to INSPIRE



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User Requirements for European Core Data

- Authoritative geospatial data are used to support
 - the implementation of public policies
 - the development of downstream services by the industry
- Geospatial data are required to be **harmonised between countries**



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User Requirements for Geospatial Data Harmonised between countries

- To enable the implementation of **public policies** in a **coherent and coordinated way among countries***
- To enable the industry to exploit their services without requiring **country specific adaptation***

*Report by the preparatory committee on the establishment of UN-GGIM:Europe, 8 May 2014



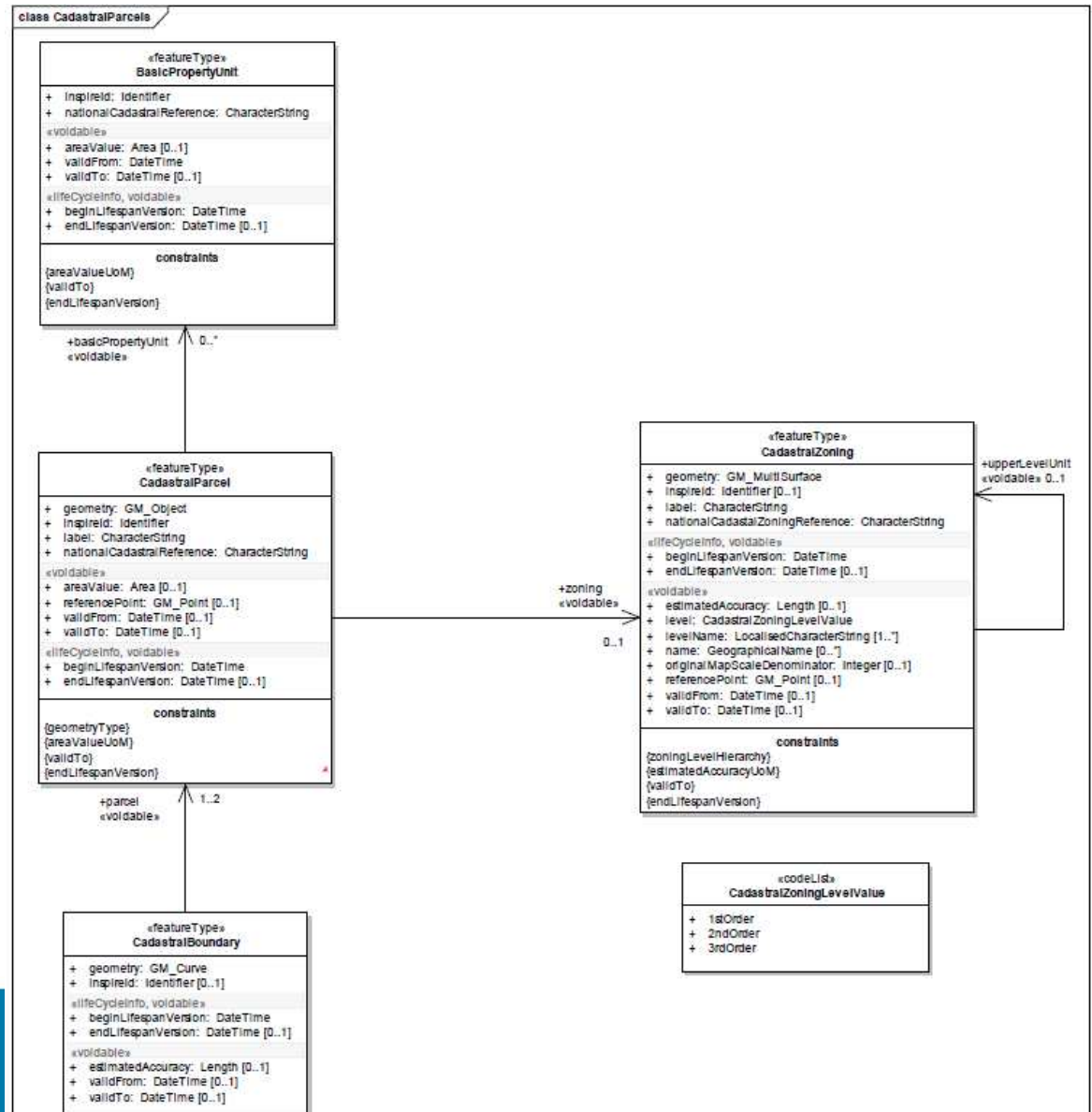
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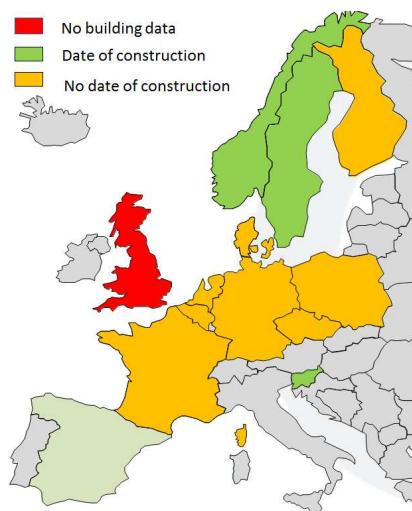
Benefit of INSPIRE

- European frame for sharing existing data
- Common structure (format, data model)

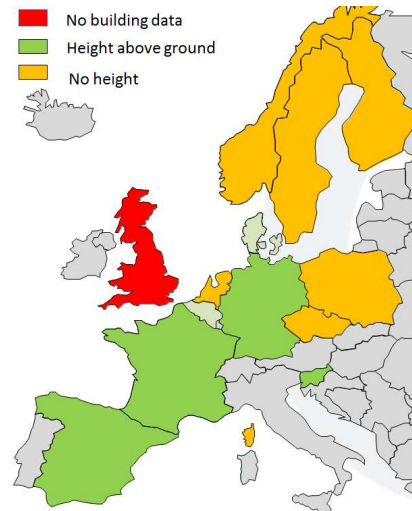


Outside INSPIRE scope

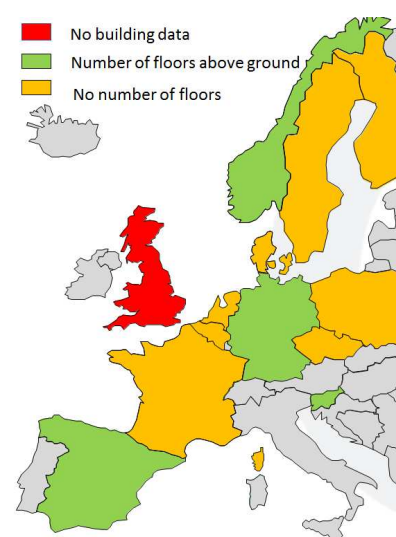
- **Data content (semantics)** is outside INSPIRE scope
- Reason
 - Most feature classes & attributes are voidable in INSPIRE
- Example
 - Attributes filled for INSPIRE theme 'Building' in ELF*



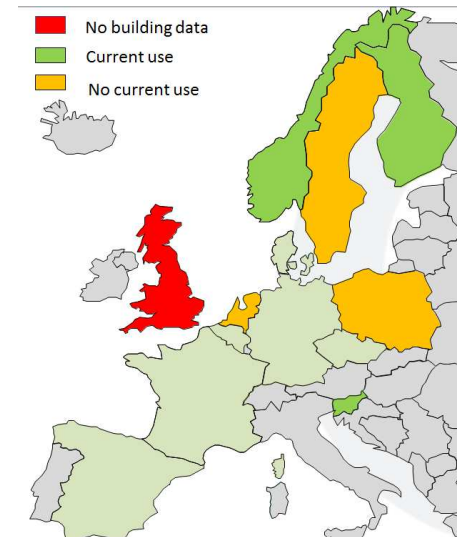
Date of construction



Height above ground



Number of floors above ground

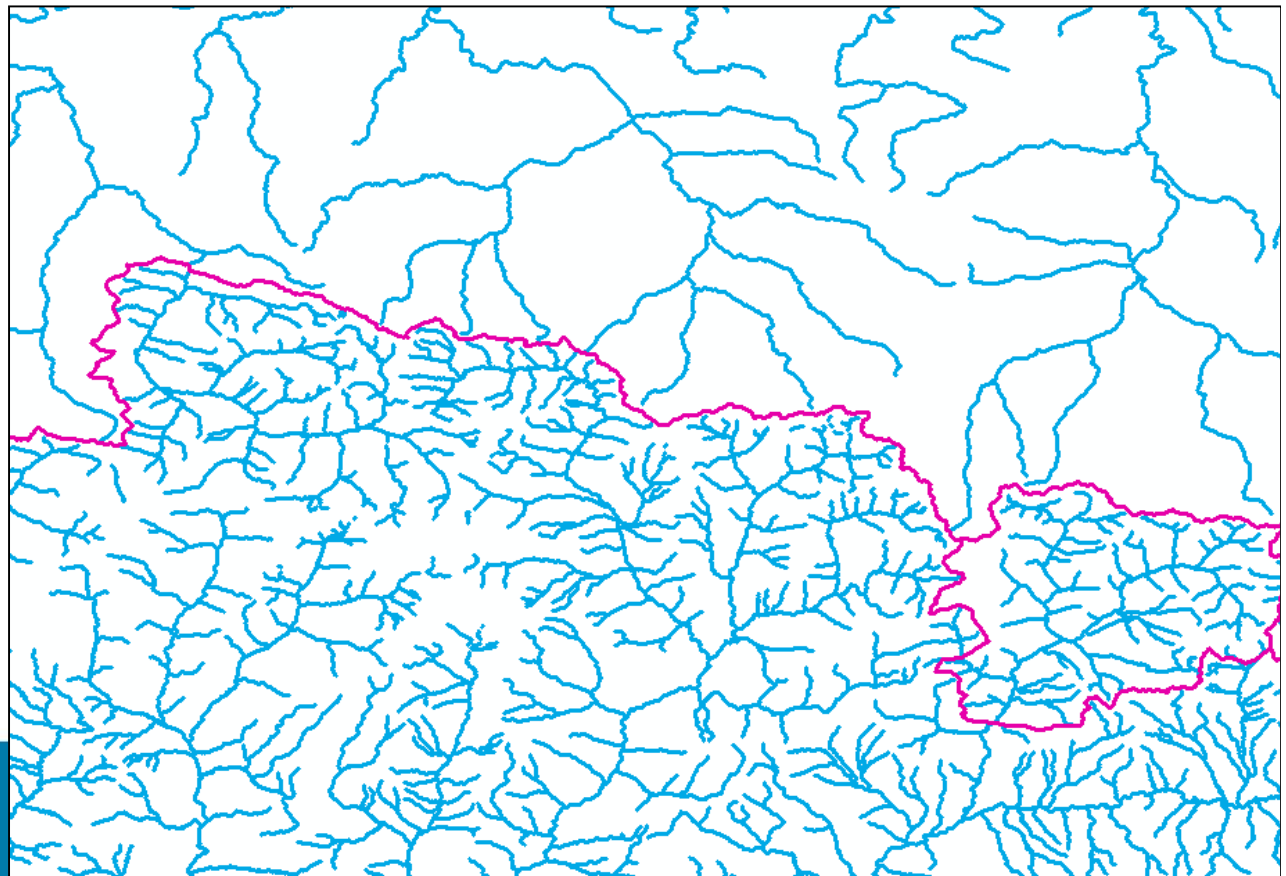


Current use

*GB&PL: enquiry not up-to-date

Outside INSPIRE scope

- Data content (geometry) is outside INSPIRE scope
- Reason
 - No requirement in INSPIRE about level of detail
- Consequence
 - Level of detail is not consistent between INSPIRE datasets



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Impact of INSPIRE: Summary

- INSPIRE aims to harmonise **existing** data
- INSPIRE supplies **first level of interoperability** (common data model)
- But INSPIRE data will remain **heterogeneous**
 - Geometry: No requirements about levels of detail
 - Semantics: Most concepts are « voidable »



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Objectives of the working group

- Define recommendations for content of core data
- Propose priorities for improvement of existing data or for production of new data in member states
- Structure of core data
 - Based on INSPIRE
- Content of core data
 - Harmonised between countries

→ WGA aim: **complementing INSPIRE** – not repeating it



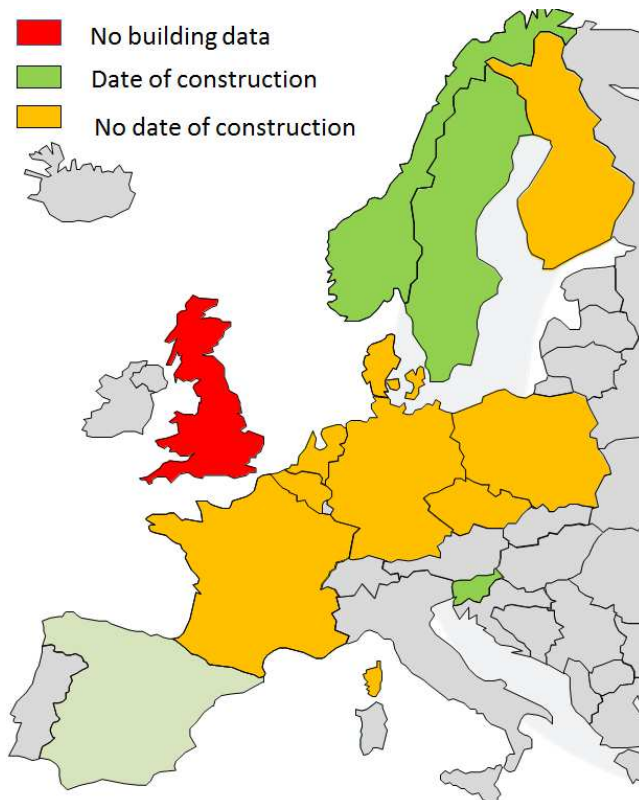
Objectives of the working group

Example

Attribute "Date of Construction" of INSPIRE theme 'Building'*

* This is an example, still to be decided by the WG

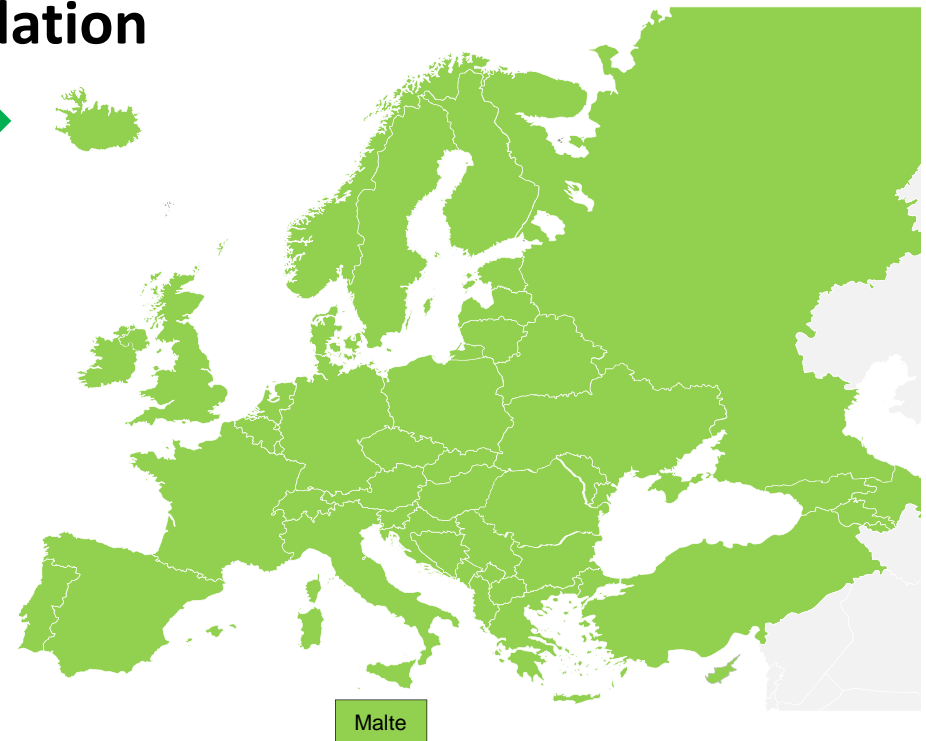
Current situation



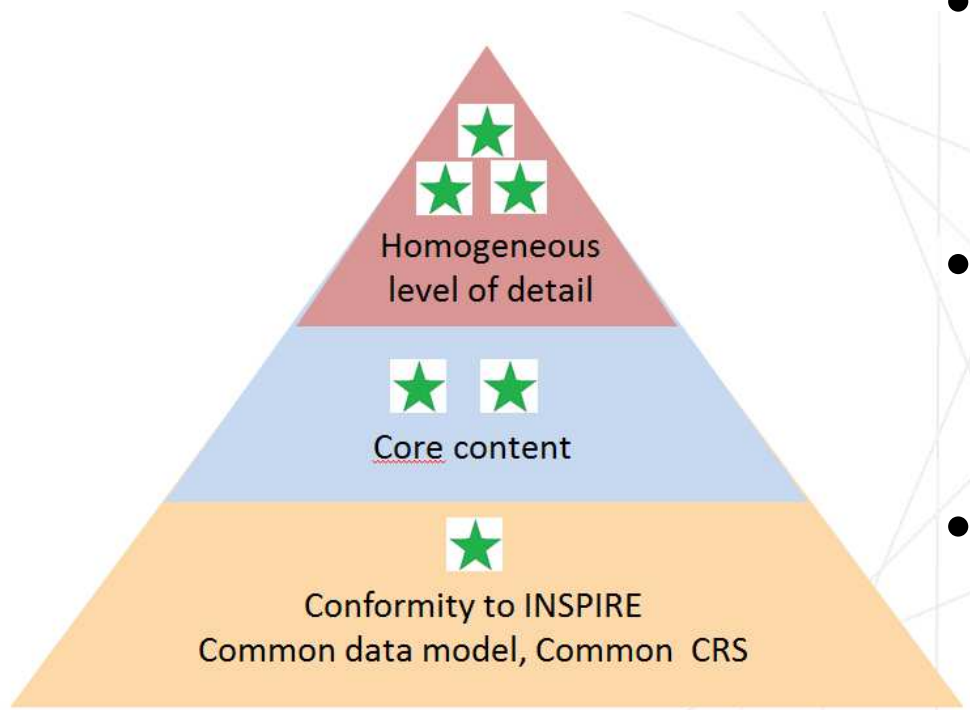
Recommendation



Harmonised filled content



Objectives of the working group (cont.)



Data harmonisation levels (ELF project)

- Go over to higher harmonisation levels
- Selecting a **core content** from INSPIRE
- Defining quality criteria to ensure core data **homogeneity**
- Get ★ ★ ★ data



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Comparison INSPIRE / Core Data

	INSPIRE	UN-GGIM: Europe WG core data
Driver	European Commission (DG ENV, JRC, Eurostat, EEA)	United Nations (UN-GGIM: Europe Executive Committee)
Geographic scope	European Union Political Europe	Geographical Europe
Objective	Harmonise existing data, ensure common structure	Ensure common similar content
Expected mean	Data transformation	Data improvement, or production of new data.
Status	European Directive Legal obligation for MS	UN Recommendation Encouragement to MS

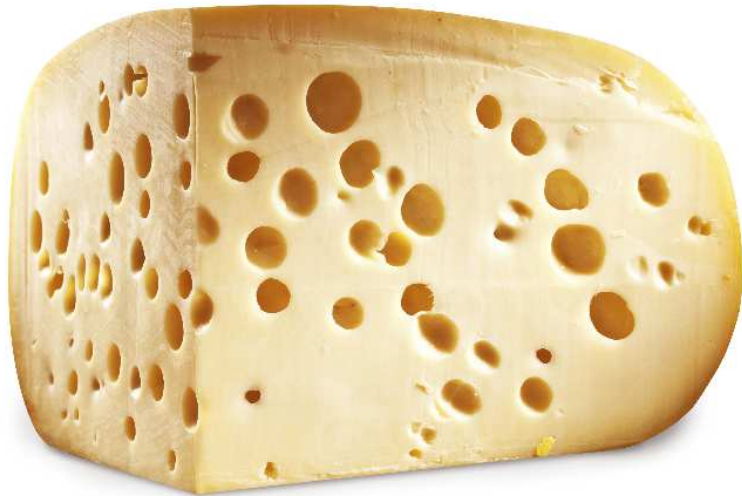


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Comparison with INSPIRE



The INSPIRE big cheese
with lots of holes



Users begin to complain:
not so much to eat!



The core data cheese:
smaller but compact
and really filled



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Core data theme selection (January 2016)



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Approach: user requirements

- Sustainable Development Goals



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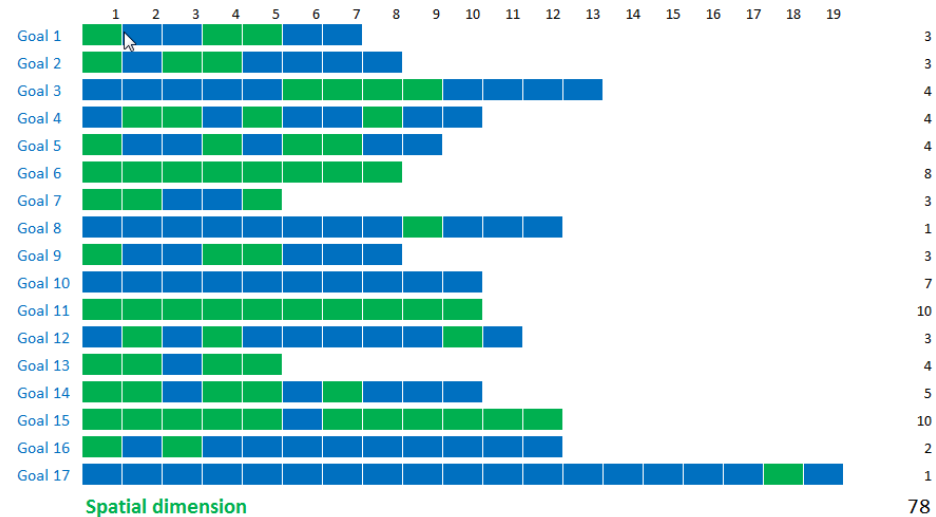
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Approach: user requirements

- Sustainable Development Goals
 - Identify the targets consuming geographic information

Eurostat selection very close to WG A one



- Identify the actions enabling to reach these targets
- Identify the required data
- Make summary by « use case maps » for each theme



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EL

To make OI

source

To delimit
DrainageBasins (HY)

analysis

Forecast propagation of
physical phenomena (risk,
water, sun, pollution,
winds)

Understand
influence on
ecosystems and
climate change

Influence city
spreading

operational

decision

Find relevant place
for project (slope,
sun, visibility,...)

Find relevant activity
on given area
(species...)

communication

Background 2D
map

3D models
(risk, projects...)

monitoring

Protection of
landscapes
(visibility)

Approach: user requirements

- Selection criteria
 - Pertain to **geospatial data** (with mandatory geometric representation);
 - Be widely used: it should be the most necessary, most common, priority data required to **analyse, monitor and achieve the SDGs**, either directly or indirectly;
 - Meet requirements common to many countries.

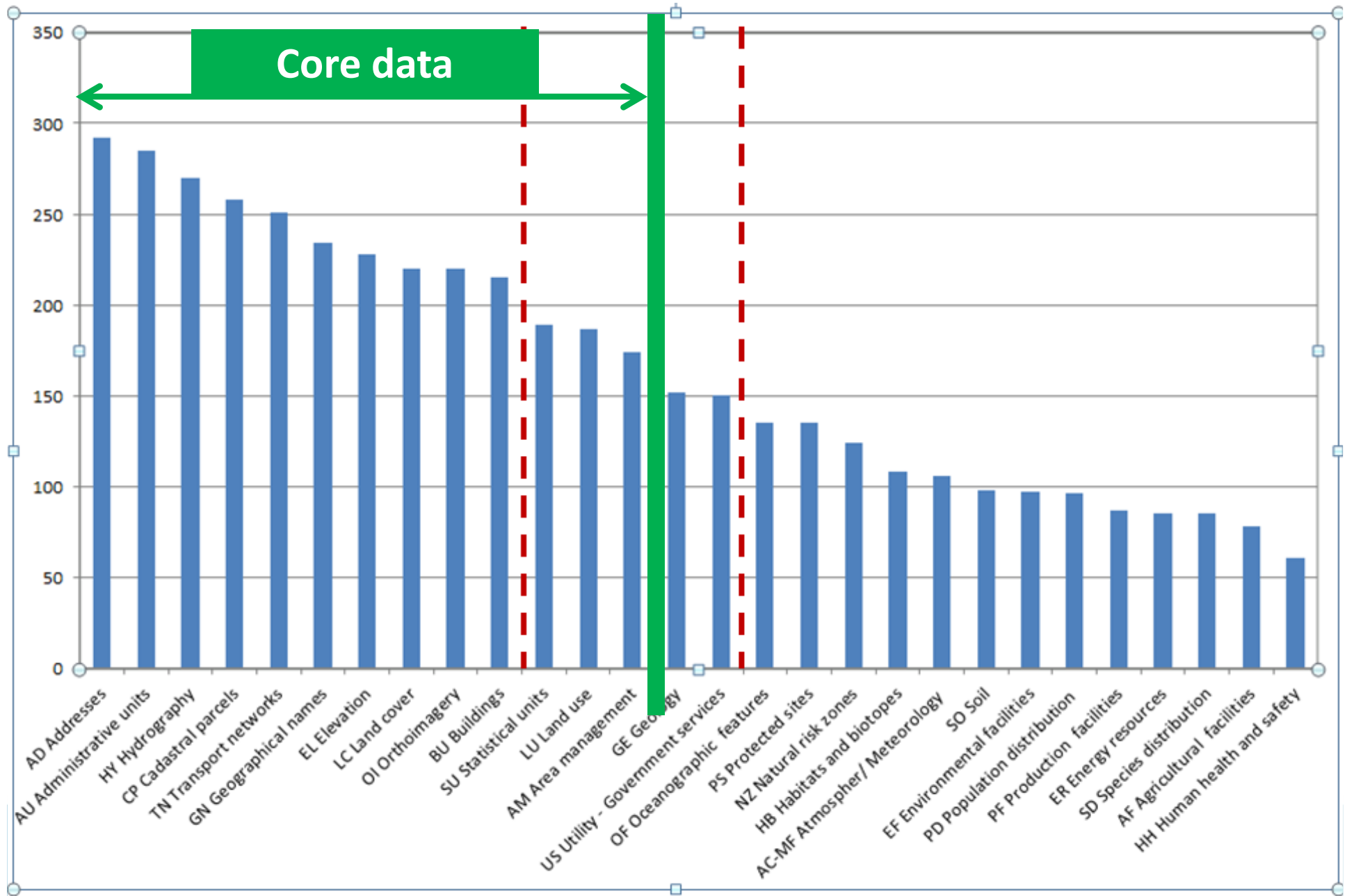


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Themes Selection



Final list of selected core data themes

Annex I

Coordinate Reference Systems

Geographical Grid Systems

Geographical Names

Administrative Units

Addresses

Cadastral Parcels

Transport Networks

Hydrography

Protected Sites

Annex II

Elevation

Land Cover

OrthoImagery

Geology

Annex III

Statistical units

Buildings

Soil

Land use

Human health and safety

Utility and governmental services

Environmental monitoring facilities

Production and industrial facilities

Agricultural and aquaculture facilities

Population distribution - demography

Area management/restriction/regulation

Natural risk zones

Atmospheric conditions

Meteorological geographical features

Oceanographic geographical features

Sea regions

Bio-geographical regions

Habitats and biotopes

Species distribution

Energy resources

Mineral resources

Core data specifications



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Calendar

- On-going work
- 3 themes to be specified soon (January 2017)
 - Cadastral Parcels
 - Geographical Names
 - Addresses
- All themes to be specified before end 2017



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Principles

- Use INSPIRE specification and SDG user requirements as starting points
- Define priorities, extract core data:
 - From data model
 - From theme scope
- Decide on levels of detail, quality criteria



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Principles

- Replace “Data specification” by “Core spatial data theme XX – Recommendation for content”
 - Make short document easy to read (deciders - politicians)
 - Technical details in separate annexes



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Principles

- 3 types of recommendations:
 - **Core recommendation**: highly required, achievable => ideally, short term action
 - **Good practice**: bring added value to core data => to be encouraged
 - **Further considerations**: *data for innovative applications => long term*



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Theme Cadastral Parcels



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Geographic extent

- **Core recommendation:** have core CP (vector) data on whole territory, according to national law
- Potential impact:
 - Encourage achievement of cadastre under elaboration (Romania ...)
 - Encourage vectorisation of remaining raster CP (France ...)

Geographic extent

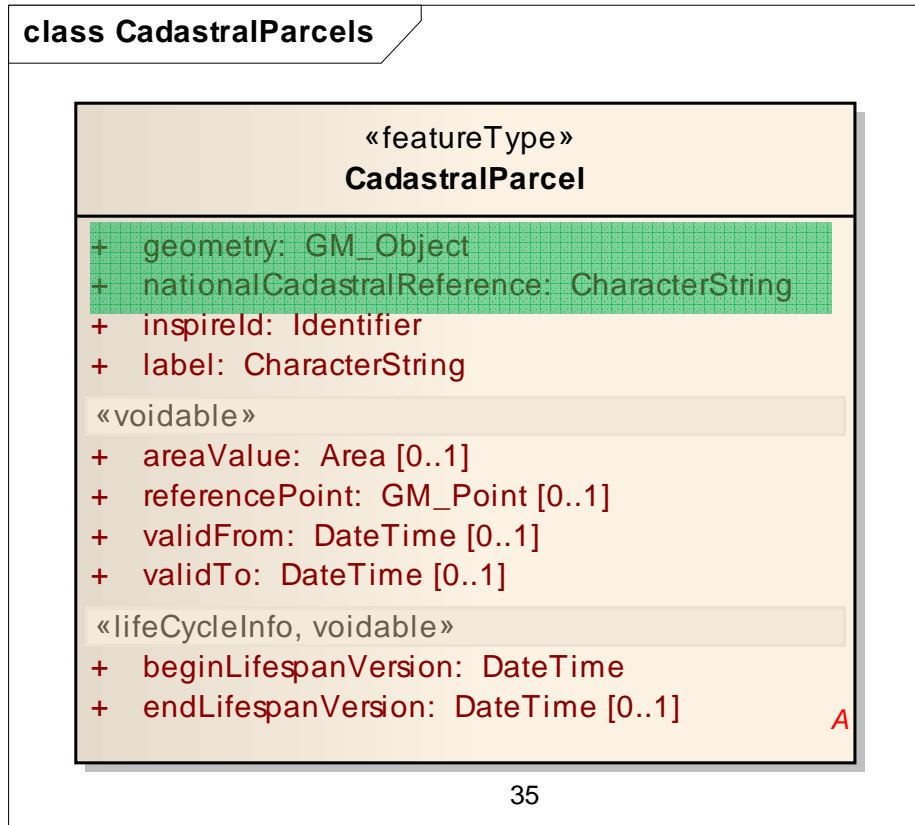
- **Good practice** : have CP data on whole land territory, including public domain
- Potential impact:
 - Possible change in national legislation
 - Need to survey missing parts

Geographic extent

- **Further consideration:** have marine cadastre
- Present in few countries
- Not yet mature (e.g. what has to be surveyed?)

Data model

Core recommendation: Cadastral Parcel with its geometry and national cadastral reference



Quality rules

- **Core recommendations**

- completeness
- continuous update (weekly or better)
- accuracy : keep INSPIRE as general target (1m in urban - 2,5 m in rural) + recommend more accurate data for new surveys (50 cm or better)
- Topological consistency

Frequently asked questions



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Will core data put obligations on data providers in addition to the INSPIRE ones?

- WG A deliverables only include recommendations
- WG A will entail no legal obligation further than existing INSPIRE obligations (for EU member states)

Will there be funding for core data?

- Political and financial framework is within WG A work plan (to be addressed in 2018)
- WG A recommendations aims at helping data producers
 - to define their strategy related to core data
 - to convince European Commission and/or National Governments about importance of GI and so about the relevance of bringing political and financial support (weight of UN recommendations)

Is core data meant for UN or for Member States?

- Core data is primarily meant for fulfilling the **common user requirements related to SDGs in Member States and European institutions.**
- However, some SDG indicators require GI and it is interesting for UN to have these indicators computed in same way from similar (core) data.

It is a UN initiative.

Why is small scale data not enough?

Main purpose is to achieve the SDGs and many actions related to SDGs take place at local level

→ there is also **need for large scale data.**

In practice, for themes AU, GN, HY and TN, candidates levels of detail are:

- Global
- Regional
- Master level 1

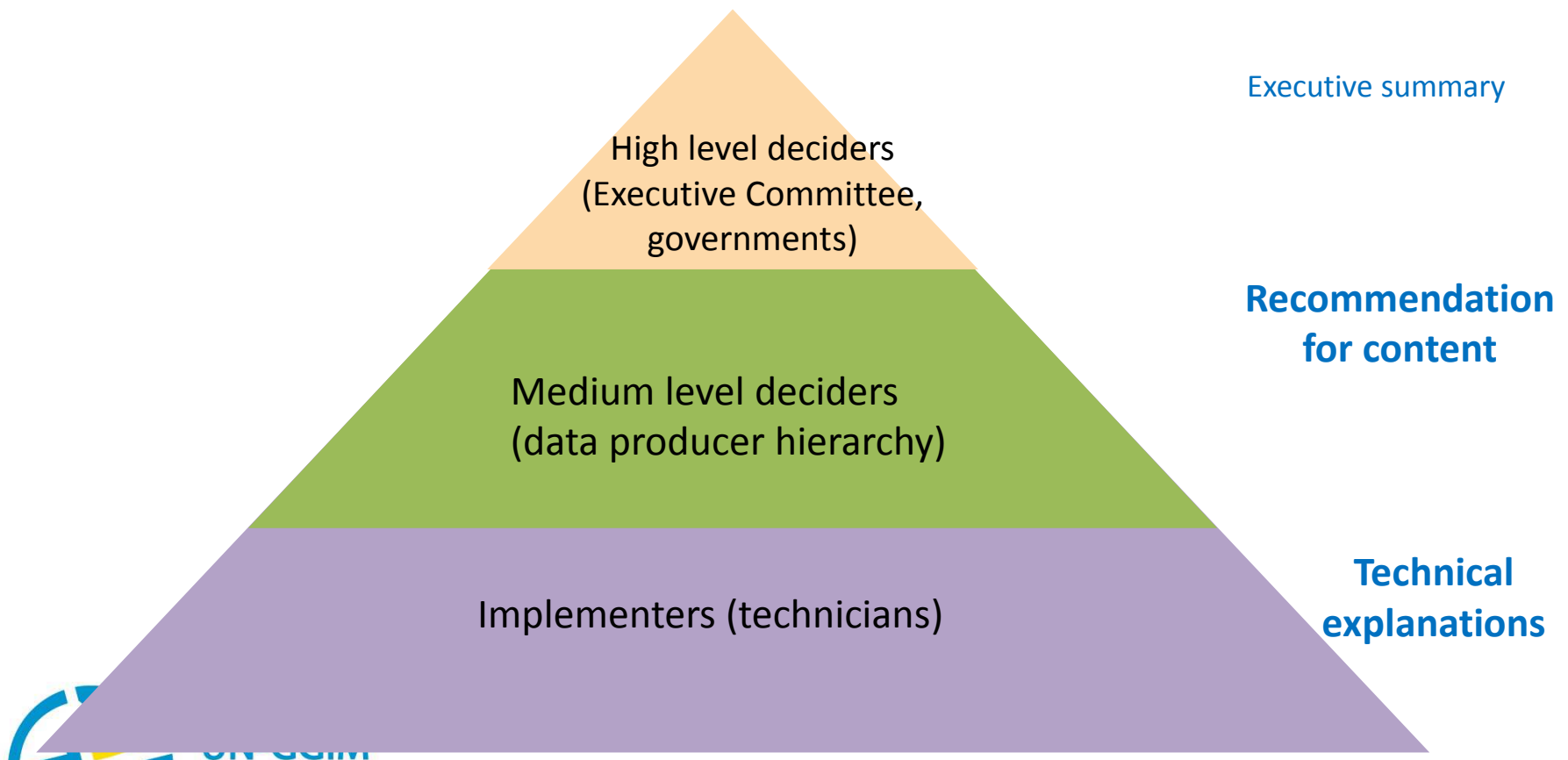
From ELF
experience



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Who are the expected readers of WG A deliverables?

- Governments and data producers



There are 14 selected themes.

Do you have enough knowledge within WG A?

- Not totally (mainly NMCA members)
- Need for investigation
 - New surveys or questionnaires might be launched
 - Your good will would be appreciated
 - By answering WG A questionnaires
 - By contacting other stakeholders in your country
 - Would you be interested to get regular news about core data?
(Basecamp, webinars, etc.)



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- Thank you for your attention
- More information:
 - Selection of core data themes
 - Next data content recommendations

<http://un-ggim-europe.org/content/wg-a-core-data>



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