UN-GGIM: Europe Working Group on Core Data
Report and update

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Introduction – Reminder
What is Core Data?

• Core data is **priority data**
  – Geographic data
  – The most useful to analyse, achieve or monitor the SDGs
  – Directly or indirectly
Objectives of the Working Group on European Core Data

• **Define Core Data** and encourage UN European Member States to produce and supply it
  – Common requirements → common (minimum) content

• **Define priorities** for producing new data or for improving existing data
  – Recommendations for Content: meant for decision-makers and data providers
The Two Steps of the Working Group on European Core Data

• First Step
  – Selecting Core Data Themes

• Second Step
  – Defining Content of Core Data Themes
First Step

Selecting 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
Second Step: Defining Content of Core Data Themes

Objectives

• Work out ‘Recommendations for Content’ for the selected core themes

• Based on

  – Existing standards: mainly INSPIRE

  – User requirements with focus on SDG related use cases
Defining Content of Core Data Themes

Types of Recommendations

• **Core recommendation:**
  
  – first priority, highly required, achievable
  
  → ideally short term action

• **Good practice:**
  
  – second priority, brings added value to core data
  
  → to be encouraged

• **Considerations for future:** *potential trends* → long term
Defining Content of Core Data Themes

Iterative Process

• Process internal in Working Group A
  → Draft

• Review by whole geo-statistical community
  → Final deliverable
State of Play
Core Theme “Cadastral Parcels”
State-of-Play
‘Cadastral Parcels’

We support all the recommendations of this deliverable - Robert Ballanche - Switzerland

We support the Core recommendations and Good practices and either they are implemented or are useful to be implemented in the future - Bronislovas Mikūta - Lithuania

I truly hope for a general acceptance for your proposals among member states - Jerker Moström - Sweden (GEOSTAT)

The specs are from my perspective very good,- Ekkehart Petri - Eurostat

Wide contribution across Europe (WG A, questionnaire, review)

Positive feed-back

Final version published!
State of Play
Core Theme “Addresses”
State-of-Play ‘Addresses’

Contribution (WG A, questionnaire, review)

A European Statistical Geospatial Framework
Proposal from the GEOSTAT 3 project

DRAFT
Version 0.7 for consultation with UN GGIM: Europe

Strong interest from statistical community
Some core recommendations integrated in ESGF

Comment resolution and final version: to be done
Recommendation for Content
Core Theme ‘Geographical Names’
State-of-Play
‘Geographical Names’

Successful review (more than 100 comments from 17 organisations)

Comment resolution and final version: to be done
Recommendation for Content
Core Theme ‘Basic Services’
Core Theme ‘Basic Services’
Why is it required?

• Because of SDGs!
  – Access to basic services often mentioned
  – Places of interest
  – Vulnerable places (risk)
Core theme ‘Basic Services’ and INSPIRE theme ‘Utility and Governmental Services’

Administrative and social governmental services (INSPIRE)

Extend INSPIRE (for governmental services)

Environment Management Facilities (INSPIRE)

Other public services

Utility Networks (INSPIRE)

Power plant

Landfill, waste treatment plant

Keep only key features of other data models

Considerations for future?
‘Basic Services’: attributes

Core attributes:
- Geometry
- Unique and persistent identifier
- Name
- Classification (type)

Good practice attributes:
- Capacity
- Temporal attributes
- Area of responsibility
‘Basic Services’: minimum list

• Extends and simplifies INSPIRE code list
  – Recreation services included
  – Less detailed

• Eurostat code list for Points of Interest taken into account
Recommendation for Content
Core Theme ‘Buildings’
Why is it required?

• Buildings are places where people live, work, ....
  – To be protected from risk, pollution, ...
  – To be made more efficient (energy, ...)
  – To be served by public services
  – Etc.

• Buildings are topographic objects (mapping, ...)

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UNITED NATIONS INITIATIVE ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT
Semantic content

- **Core attributes**
  - Unique and persistent identifier
  - Height and/or number of floors above ground
  - Current use
  - Nature
  - Date of construction
  - Number of dwellings
Semantic content

- **Good practice attributes**
  - Linking mechanism (address, external reference)
  - Physical description of building
    - Material(s)
    - Underground
  - Energy information
A key issue: the geometry

<table>
<thead>
<tr>
<th>Geometry</th>
<th>Proposal</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2D (or 2.5D)</td>
<td>Core recommendation</td>
<td></td>
</tr>
<tr>
<td>3D – LoD2 of City GML</td>
<td>Good practice</td>
<td>Everywhere or at least in cities?</td>
</tr>
<tr>
<td>3D – LoD4 of City GML (building interior)</td>
<td>Considerations for future</td>
<td>City GML or alternative solutions Only for specific buildings</td>
</tr>
</tbody>
</table>
Data Management

• Building data may be in a single database or in various databases

• Proposal: offer a centralised service to provide (at least) core content

  → coordination between data producers

  → research (how to link different views on a building)
Recommendation for Content Core Theme ‘Statistical Units’
Why is it required?

- Statistical units: mandatory bridge that connects the territory and statistical data
- Statistical information: key part of administrative decisions of governments at any level
Main Features

• Core Recommendations
  – Grid
    • 1000 meters side.
  – Vector
    • Territorial Units for Statistics (NUTS)
    • Urban units for statistics
      – urban zones, functional urban areas
    – Time tracking of changes of statistical units

• Good Practice
  – Enumeration Districts
Remaining Issue

• UN-GGIM: Europe
  – covers whole geographic Europe

• NUTS and Urban Audits Units
  – cover only EU and associated countries

→ To be further discussed
Core Theme ‘Administrative Units’
Theme ‘Administrative Units’
Why is it required?

• 3 main functions
  – Territory of competent authority
  – Basic geographic equipment of a country
  – Often used as statistical units
Land Administrative Units: semantic content

Very close to INSPIRE

Discussion on temporal aspects (use as statistical units)
Maritime Units: semantic content

- Core recommendation: close to INSPIRE
Maritime Units: semantic content

- Good practice: future standard S121 from IHO
  - Geometry described with more details
    - Points used for base line
    - Distinction between limit and boundary
  - Use of LADM principles to describe the RRR applying to different kinds of Maritime Units
    - LADM: Land Administration Domain Model
    - RRR: Right Restriction Responsibility
Conclusions
Conclusion

• Core Data raises interest of several actors
  – UN-GGIM: Europe Working Group B
    • Policy Paper
  – European Geostatistical Framework
    • Geostat 3 Report

• What is expected soon
  – Reviewing core themes ‘Statistical Units’ and ‘Buildings’