UN-GGIM Core Data

Objectives and state-of-play on LC/LU

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UN body stresses vital role of geospatial data to achieving sustainable development goals

Climate change and sea level rise are shaping the Seychelles Islands in spectacular and dramatic ways. Photo: UNEP GRID Arendal/Lawrence Hislop

SUSTAINABLE DEVELOPMENT GOA
17 GOALS TO TRANSFORM OUR

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What is UN-GGIM?
United Nations initiative on
Global Geospatial Information Management

- Since July 2011 (General Secretariat (E/2011/89) → creation of *"United Nations Committee of Experts on Global Geospatial Information Management"* (2011/24).

United Nations   E/2011/89*

Economic and Social Council   Distr.: General
                                                                          12 May 2011

                                                                          Original: English

Substantive session of 2011
Geneva, 4-29 July 2011
Item 13 (k) of the provisional agenda**
Economic and environmental questions: cartography

Global geospatial information management

Report of the Secretary-General

Summary

      The present report is based on a process of extensive consultation with geospatial information experts from Member States of all regions. The importance of geospatial information in addressing humanitarian, peace and security, environmental and development challenges is stressed and the establishment of a global mechanism to discuss critical issues on geospatial information management is suggested. Information is provided on the activities of the United Nations in the field of geospatial information, including their legislative background, as well as on major initiatives at the national, regional and global levels in this field. In addition, the urgent need for better coordination facilitated by the United Nations is addressed and specific recommendations are made on the way forward, including the creation of a committee of experts on global geospatial information management.

What is UN-GGIM?

- Strong implication of the statistical community
- Integrating geospatial data, statistics and other information

UN-GGIM Activities

– Global level

Subcommittee

1. Subcommittee on Geodesy (formerly WG on Global Geodetic Reference Frame)

Expert Groups

1. Expert Group on the Integration of Statistical and Geospatial Information
2. Expert Group on Land Administration and Management

Working Groups

1. Working Group on Development of a Statement of Shared Principles for the Management of Geospatial Information
2. Working Group on Trends in National Institutional Arrangements in Geospatial Information Management
3. Working Group on Geospatial Information and Services for Disasters
4. Working Group on Global Fundamental Geospatial Data Themes
5. Working Group on Legal and Policy Frameworks for Geospatial Information Management
6. Working Group on Marine Geospatial Information

Inter-Agency and Expert Group on Sustainable Development Goals Indicators (IAEG-SDGs) - Working Group on Geospatial Information

– Regional level

UN-GGIM ASIA-PACIFIC	UN-GGIM AMERICAS	UN-GGIM ARAB STATES

UN-GGIM EUROPE	UN-GGIM AFRICA

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UN GGIM Europe

2014 Chisinau, Moldavia

UN-GGIM Europe Working Groups:

* WG A *"core Geospatial Reference Data (cGRD)", France*

* WG B Geospatial Information Integration, Germany

* Global Working Group on Fundamental Data (UK)

* WG GGR: Europe: EU contribution for GGRF for Sustainable Development

What is core data for WGA?

Core data is priority geospatial data, most useful to

analyse, achieve or monitor the SDG, directly or indirectly

How is core data complementing INSPIRE?

- INSPIRE is mainly about harmonisation of (existing) data

  - Common model, still heterogeneous content (no LoD, voidable attributes)

- Core data is about availability of data → encouraging production of new data (or upgrade of existing data)

INSPIRE: STRUCTURE

CORE DATA: CONTENT

What was first step?

Selection of core data themes:

Most needed in SDG related use cases

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

LC

analysis

Locate places of interest (forests, built-up areas, wetlands…)

Ecosystem studies (ecological network, ecosystem accounts….

Assess/forecast biomass and greenhouse stock

Understand /forecast propagation of phenomenon (erosion, pollution, water-flood, urban spreading ….)

operational

Derive indicators (soil sealing, soil erosion, land take…..) for SDG and European Directives

decision

communication

monitoring

Find relevant place for projects

Background 2D map

Decision making: spatial planning, agricultural good practices, …

3D models (risk, projects…)

LU (existing)

source

analysis

Locate places of interest

Assess activities and pressure on environment

Understand /forecast propagation of phenomenon (urban spreading ….)

Derive indicators for SDG and European Directives

operational

decision

communication

monitoring

Find relevant place for projects
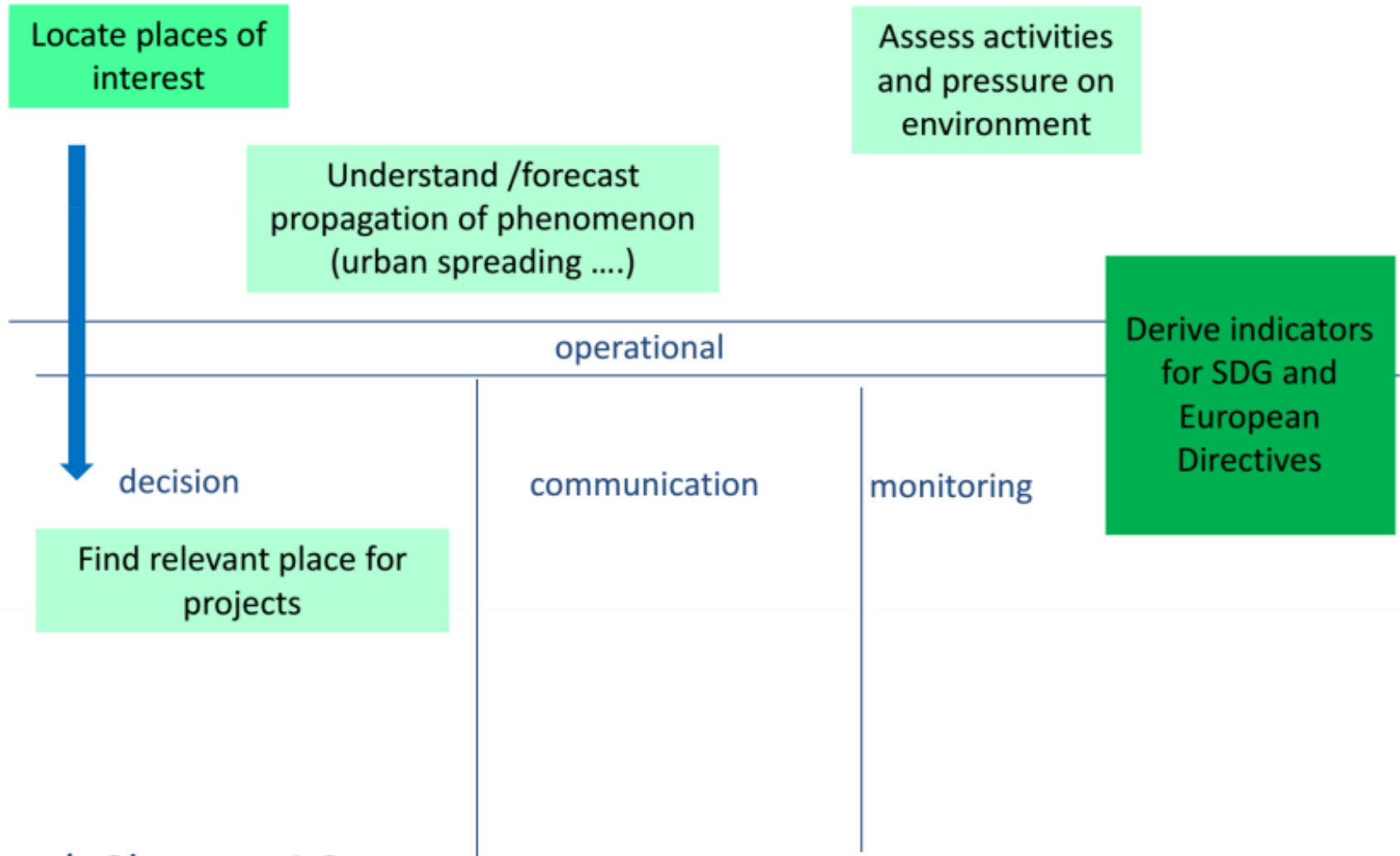
Close to LC

LU (planned)

source
_____

analysis

State-of-play of existing regulations before launching a new one

_____

operational

_____

decision

communication

monitoring

Capture decision (best link between places and activities)

Make people aware of spatial planning

To deliver permits

Find relevant place (from legal point of view) for new project

Assess environmental impact of new projects

*close to AM

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AF

source

analysis

Understand interrelation wit water, ecosystems (pollution….)

Make studies on food production

operational

decision

communication

monitoring

Help to run agricultural activities

After selection of cGR Themes:

- Work out 'Recommendations for Content' for the selected themes (features+attributes, LoD, quality, etc.)

- Based on :

  – Existing standards: mainly INSPIRE

  – User requirements with focus on SDG related use cases

Recommendations for Content: principles

- Use INSPIRE specification and reqs. as starting point

  - => common terminology

- Further investigation on reqs.

    - Bibliography

    - User interviews

    - Questionnaires

    - WG members expertise

User requirements
for UN-GGIM Core Data
with focus on SDGs
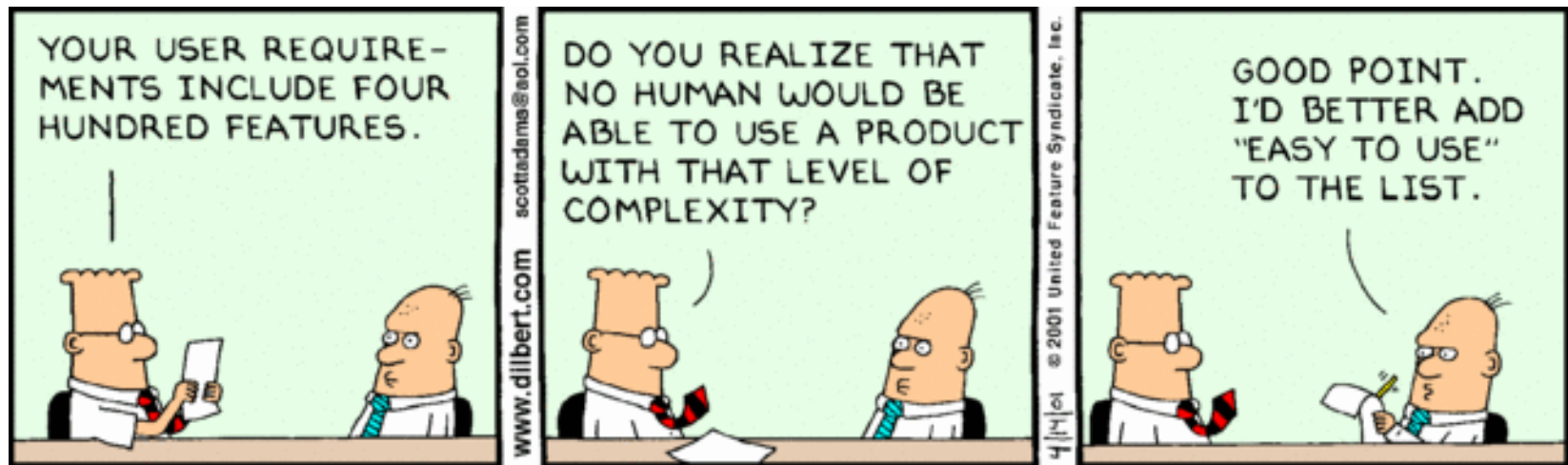
http://dilbert.com/strips/comic/2001-04-14/

New EU requirement! (EC/EEA)

- In the 2016 legislative proposal by the European Commission to amend existing climate change legislation to support the countries in their reporting obligations on land use, land use change and forestry (LULUCF), the European Commission pointed out that a "**legal proposal for the inclusion of LULUCF into the 2030 EU climate and energy policy framework is a key part of the Commission strategy for a resilient Energy Union with a forward looking climate change policy**, underpinning its decarbonisation dimension"

- **Challenge for CLC(+): improvement of the existing land monitoring tools (amongst other), by reducing the MMU from 25 to 0,5 ha for upcoming reporting obligations from 2021 onwards**
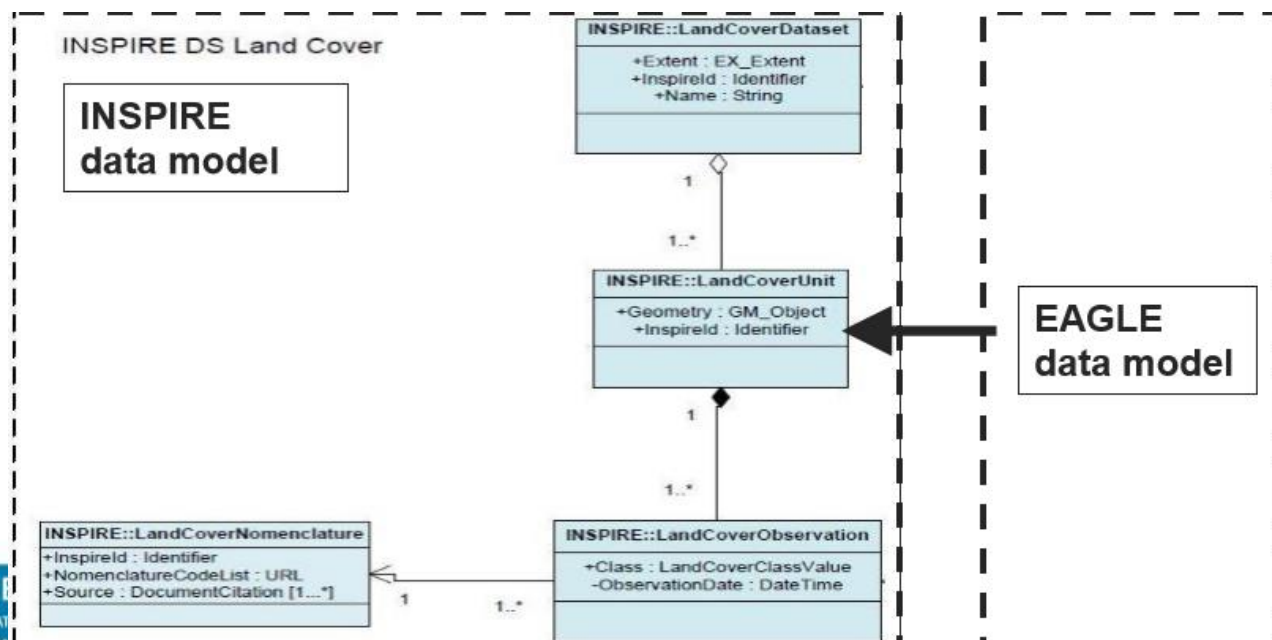
Content – data model

- Identify main issues and/or first proposals regarding core data

    – LC: no common classification in INSPIRE

    Proposed action: Keep Inspire DS and review additional proposal made by the EAGLE group (after EEA conformance) for CLC+? Calendar!

Content – data model

- Identify main issues and/or first proposals regarding core data

  - ELU, PLU

    - Issue 1 : HILUCS is a valid European Classification, out of the Environmental community?

    $\Rightarrow$ Proposed action: review additional proposal made by the EAGLE group to improve HILUCS (after EEA conformance) for CLC+? Calendar!

Content – data model

- Identify main issues and/or first proposals regarding core data

  - ELU, PLU

    - Issue 2 : minimum distinction is needed for LPIS LC & LU

    - Issue 3: HILUCS valid for PLU? → doubts expressed by several NRCs, and others

      - proposed action: further investigation (consultation with EU/National experts) + Extended LU Codelist?

Contents: Levels of detail

- LC
  - As-is analysis:
    - National and subnational: scales around 5K, 10K, 25K
    - European DS: CLC + HRLs (100K), Copernicus Local Land around 10K
      Some countries (ES, GE, AT) are improving their National systems to link with cadastral/LPIS data (Master level 0)
  - INSPIRE data specifications: no recommendation about scale

  - **New requirements Copernicus Land (EEA) for CLC+ after 2018: 0,5 ha MMU (0,25 urban areas?)**

**Core/Recommendation for LC:
Master level 1 5K – 25K?: to be discussed**

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Contents: Levels of detail

- LU
  - As-is analysis:
    - PLU: scales around 2K, 5K
    - ELU: scales around 5K, 10K, 25K → 100K (CLC)
  - INSPIRE data specifications
  - **New requirements Copernicus Land (EEA) for CLC+ after 2018: 0,5 ha MMU (0,25 urban areas?)**

  - First proposal:

**Core/Recommendation for ELU: Master level 1
5K – 25K? to be discussed**

Conclusions

- LC considered as "difficult" because no common classification in INSPIRE → EAGLE/CLC+?

- ELU & PLU: HILUCS extended?→ EAGLE/CLC+?

- New requirements Copernicus Land (EEA) for CLC+ after 2018

- on-going discussions, not yet any decision

Conclusions

Feed-back from this workshop and tomorrow's Copernicus event will help WG A to take decisions about common minimum content of LC/LU

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Questions?

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