INSPIRE Thematic Cluster on
Elevation, Orthoimagery,
Reference systems and Geographical grids

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Serving society
Stimulating innovation
Supporting legislation
Thematic cluster scope

- Land-elevation sub-theme
  - Land Spot – elevation

- Bathymetry sub-theme
  - Positive Height (Negative Depth)
  - Varying water level
  - Earth’s surface
  - Bathymetry Spot – elevation

- Vertical reference level – Datum
- Positive Depth (Negative Height)
- Earth Rotation axis
- Reference meridian
- Equator
- Joint Research Centre
Membership

Elevation, Orthoimagery, Reference systems and Geographical grids (64)

Main stakeholders: Mapping and Hydrographic agencies, Copernicus, EU agencies and organizations, EU and global coordination bodies, any potential data user
Content / Type of Resources

- Discussion topics
- Unsatisfied needs and use-cases
- Successful experiences
- Leading projects
- Applicable software tools
- Useful documentation
- News and upcoming events

[Diagram showing the distribution of resources by category, including:
- Member State issues: 18%
- Interoperability, Data provision: 14% each
- SW Tools: 10%
- Best practices, EU Thematic databases: 9% each]
Content / Examples

• **Discussions threads** (Implementation / TG evolution / ...)
  
  *How to encode OI and EL INSPIRE GML coverages (raster data)*
  
  *WCS as an INSPIRE download service option for raster data*

• **Unsatisfied needs / Use-cases**
  
  *Lacks of EU-DEM dataset*
  
  *Official European registry of reference systems and geodetic parameters*

• **Successful experiences**
  
  *Seamless OI coverage for the Grand Genève cross-border area*
  
  *EuroDEM – A pan-European interoperability case*

• **Leading projects**, (European / national level)
  
  *ELF, CRS-EU, eENVplus, ARE3NA, PNOT...*

• **Applicable software tools**: *FME...*

• **Useful documentation**:
  
  *Presentations about the current TGs, Web Coverage Services (WCS)*
  
  *Workshop reports: ‘Map projections for Europe’, ‘European reference grids’*
Discussions / Activity

DISCUSSION THREADS
- Total: 28  (Main-group: 12 / Sub-groups: 16)
- Cross-theme: 11 / Cross-cluster: 5
- 20% of threads already closed

REPLIES
- Total: 88  (Main-group: 48 / Sub-groups: 40)
- 55% Activity at the main-group level
- Most active sub-groups:
  - Geographical grids: 25%
  - Reference systems: 11%
Interesting & Active Discussions

• **The winners (29 replies in total)**
  - How to encode the spatial extent of coverages - domainExtent vs. gml:boundedBy (16 replies)
  - Encoding of EL and OI coverages in GML - GMLCOV (13 replies)

• **In second place...**
  - Usability of the ‘Zoned Geographic Grid’ (13 replies)
  - Existing validation rules (10 replies)
  - Transverse Mercator projections allowed in INSPIRE - ETRS89-TMzn and raster data for OI and EL (9 replies)
  - European Grid Coordinate System naming used for EU-DEM tiles - Copernicus RDA EU-DEM EGCS naming (7 replies)
  - Use of the ‘Equal Area Grid’ (8 replies)
  - Misalignment between coverages from different data providers (6 replies)
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Example discussion topic

Encoding of INSPIRE coverages

- First experiences in Spain (IGN Spain) & Finland (SIKE)
- Using FME software (from SAFE, Canada)
- Report as a best practice to be promoted through the ARE3NA project
- Useful for other implementers and Member States

Next Activities

• EuroGeographics INSPIRE KEN

TC#3 (EL-OI-RS-GG)

- 29-30.09.2015 – Barcelona

  Workshop about transformation of raster data (EL, OI) and WCS

  Cartographic and Geological Institute of Catalonia (ICGC)

  Barcelona
Looking for your participation…

• Mapping and Hydrographic agencies
• Implementers with questions about INSPIRE georeferencing framework
• Producers / experts on Bathymetry
• Copernicus community
• EU agencies and organizations
• Any potential user of EL & OI data

JOIN THEMATIC CLUSTER #3


Take a leaflet in the JRC/EC booth
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ICGC
Institut Cartogràfic i Geològic de Catalunya

Facilitator Thematic Cluster #3