

INSPIRE Conference – Geospatial World Forum – 28 May 2015 – Lisbon

# Report of Work Group A

## « Core Data »

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# Contents

- Introduction to the Core Data concept
- Methodology
- Progress of Work
- Draft list of core data for “technological and natural hazard prediction”
- Core data addressing the requirements of NSIs



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# Introduction to the Core Data concept of UN-GGIM: Europe

- What geospatial data is available now
  - **Heterogeneous** between countries
- What users really need
  - **Homogenous** geospatial data are required
  - to enable the implementation of **public policies** in a coherent way among countries
  - to enable significant opportunities for **services developed by industry** to be exploited without requiring country specific adaptation



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# Core Data concept (cont.)

- Work Group A aim: Identify geospatial core data Pan-European, **harmonised & homogeneous** meeting these requirements
- **Bottom-up** approach from **authoritative data of member states**



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# Core Data concept (cont.)

- Both national and international users
  - To either fulfil their requirements or to geo-reference their own thematic geospatial data
- **Minimum framework data**
  - Core data cannot meet directly the needs of all specific topics
  - But core data may be used as a skeleton on which **other geospatial data** (more specific, richer, more detailed, more thematic) could **rely and be built**
  - Facilitate the production and support the quality and geometrical consistency of other data



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# Methodology

## Assessment of core data **needs for sustainable development**

- UN Sustainable Development Goals (**SDG**) have been taken as the basis
- WG structured usages by identifying **3 major usage themes**
  - Technological and natural hazard prediction
  - Availability of natural resources and maintenance of biodiversity
  - Sustainable economy and facilities



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# Methodology (cont.)

## Integration of **INSPIRE**

- Use **INSPIRE use cases** to justify user requirements
- Use **INSPIRE specifications** for specifying core data
- **Select** core data themes, feature types and attributes within INSPIRE data specifications
- For this subset of INSPIRE specifications **define quality criteria** farther than current INSPIRE specifications in order to foster **data homogeneity**



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# Progress of Work

- WG A has **analysed user requirements** for the three respective major usages
  - assessing the required geospatial data: specifications and accuracy
  - justifying such assessments through existing legislations
  - comparing national core data specifications
- WG A has outlined core data scoping
  - for the needs of “technological and natural hazard prediction” usages
  - **draft list of core data**



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Title	Scale / Accuracy	Other specifications	Goal
Elevation	Vertical accuracy: 20 cm in hazard areas		Hazard prediction
Coastline	1: 50 000		Hazard prediction
Precipitation	Temporal accuracy: short-term precipitation		Hazard prediction
Winds	Temporal accuracy: short-term precipitation		Hazard prediction
Storms	Temporal accuracy: short-term precipitation		Hazard prediction
Water tables			Hazard prediction
Surface water	Metric accuracy	Name / Hydrologic code (as required by WFD) / Hydrologic persistence (perennial, intermittent) / Hydrographic Origin (natural, man-made) / Type (stream, canal, aqueduct, ditch, estuary, ... , virtual) / Position towards the ground / Navigability	Hazard prediction
Areas that contain sources of pollution	Metric accuracy	Areas for disposal of waste / Fairways at sea, large inland waters / Nitrate vulnerable zones	Hazard prediction
Pipelines and waste water network	Metric accuracy		Hazard prediction
Production facilities	Metric accuracy	Facilities regulated under Integrated Pollution Prevention & Control (IPPC) European Directive or Seveso (I, II or III) European Directive.	Hazard prediction
Land cover	1 : 25 000		Hazard prediction
Dikes	Decimetric accuracy for dikes of first order		Hazard prediction
Demography : people in hazardous areas		Number of inhabitants / Persistence (temporal / permanent)	Risk assessment
Demography : people in hazardous areas		Number of employments	Risk assessment
Areas containing natural exposed elements	1:25 000	Environmental protected areas / Drinking water protection areas	Risk assessment
Buildings	1:25 000		
Transport network	1:25 000		Risk assessment
Utilities and governmental services	Metric accuracy	Buildings having a function into the rescue chain : buildings open to the public / schools / hospitals / fire station / police station	Risk assessment
Areas used for risk management		Air quality management zones / Restricted areas around contaminated sites	Risk management
Addresses	Metric accuracy		Background data
Orthoimagery	0.5 metre resolution		Background data
Geographical names	Metric accuracy		Background data
Administrative units	Metric accuracy		Background data

Draft list of core data for  
“technological and natural  
hazard prediction”

# Draft list of core data for “technological and natural hazard prediction”

- Meteorological, elevation and hydrography data
  - Important for hazard assessment
- Mix of classical reference data and of particularly important thematic data
  - Most important restricted and regulated areas
- Carefully selected data about exposed elements
  - Number of inhabitants and buildings within defined zones, transportation networks, infrastructure facilities
- Additional core data
  - Land Cover data, Orthoimagery



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# Still to be investigated: core data addressing the requirements of NSIs

- Core data should include core features and attributes able to **link statistical information**  
→ meet the statistical world with the geospatial world
- Core data should allow NSIs to **introduce location issue** in their **statistical data production processes**
  - NSIs need to geo-reference many sources to produce statistical data



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Thank you for your attention



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