River basin management supported by INSPIRE

Andrej Abramić, Vanda Nunes de Lima, Paul Smits

European Commission/Joint Research Centre
Institute for Environment and Sustainability
Digital Earth and Reference Data Unit

12th European Conference „EUROPE INBO 2014” on the implementation of the Water Framework Directive
Why Europe needs a spatial data infrastructure (SDI)?

• Natural Disasters and as well as other environmental phenomena do not stop at national borders!
• 20% of the EU citizens (115 million) live within 50 Km from a border

• 70% of all fresh water bodies in Europe are part of a trans-boundary river basin
• The EU Water Framework Directive 2000/60/EC - integrated river basin management for Europe
**INSPIRE**

“Infrastructure for Spatial Information in the European Community”

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<th>Institutional framework</th>
<th>Technical standards</th>
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<td>Fundamental data sets</td>
<td>Data services</td>
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Distributed infrastructure

Set of European and national Legal Acts and their coordinated implementation

**INSPIRE** is built on the SDIs established and operated by the Member States
INSPIRE Directive 2007/2/EC - legal framework

“What Member States must implement” (abstract specification)

Commission Regulation

legally binding
not legally binding

“How Member States might implement it” (implementation specification)

Technical Guidance

TG for the Implementation of Discovery Services
Implementation Requirements & Recommendations

e.g.

TG – Data Specification on Addresses
Implementation Requirements & Recommendations

INSPiRE Directive 2007/2/EC

IRs for Metadata, Network Services Interoperability Spatial data sets and services

JRC is the technical coordinator
http://inspire.ec.europa.eu/
INSPIRE architecture
## INSPIRE thematic scope

### Annex I
1. Coordinate reference systems
2. Geographical grid systems
3. Geographical names
4. Administrative units
5. Addresses
6. Cadastral parcels
7. Transport networks
8. Hydrography
9. Protected sites

### Annex II
1. Elevation
2. Land cover
3. Ortho-imagery
4. Geology

### Annex III
1. Statistical units
2. Buildings
3. Soil
4. Land use
5. Human health and safety
6. Utility and governmental services
7. Environmental monitoring facilities
8. Production and industrial facilities
9. Agricultural and aquaculture facilities
11. Area management/restriction/regulation zones & reporting units
12. Natural risk zones
13. Atmospheric conditions
14. Meteorological geographical features
15. Oceanographic geographical features
16. Sea regions
17. Bio-geographical regions
18. Habitats and biotopes
19. Species distribution
20. Energy Resources
21. Mineral resources
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Example: Hydrography – Mapping
Example: Hydrography - Network

WatercourseNode

WatercourseLink
Example: River basin district

[Diagram of River basin district and related concepts]
Example: Area management - WFD Reporting units
Example: Hydrography & Area management

- WatercourseNode
- WatercourseLink
- Basin
- SpringOrSeep
- Catchment
- Rapids
- DamOrWeir
- Pipe
- Shore
- Lock
- PumpingStation
- Embankment
- Crossing
- WFDRiver
- StandingWater
- Watercourse
- HydroPowerPlant
- LandWaterBoundary
- WFDTransitionalWater
- WFDLake
- WFDCoastalWater
- OceanRegion

Example: Hydrography & Area management
Water Framework Directive 2000/60/EC
INSPIRE PILOT

- Involved DG ENV, JRC, EEA – WISE, MS’s – testing phase
- Scope is reporting on the RBMP 2015/2016
- Reporting schema on RBMP will include INSPIRE data model
Waste Water Emissions
Industrial Emissions Directive 2010/75/EU – reporting
European Pollutant Release and Transfer Register (E-PRTR)

Reporting obligations concerning: collection, treatment and discharge of:
- Domestic waste water
- Mixture of waste water
- Waste water from certain industrial sectors.

07-Oct-2014 Call for expression of interest for individual experts and organizations to participate in the INSPIRE marine pilot –
Thank you for your attention!

Questions?

Andrej Abramić
E-MAIL: andrej.abramic@jrc.ec.europa.eu

http://inspire.jrc.ec.europa.eu/