



River basin management supported by INSPIRE

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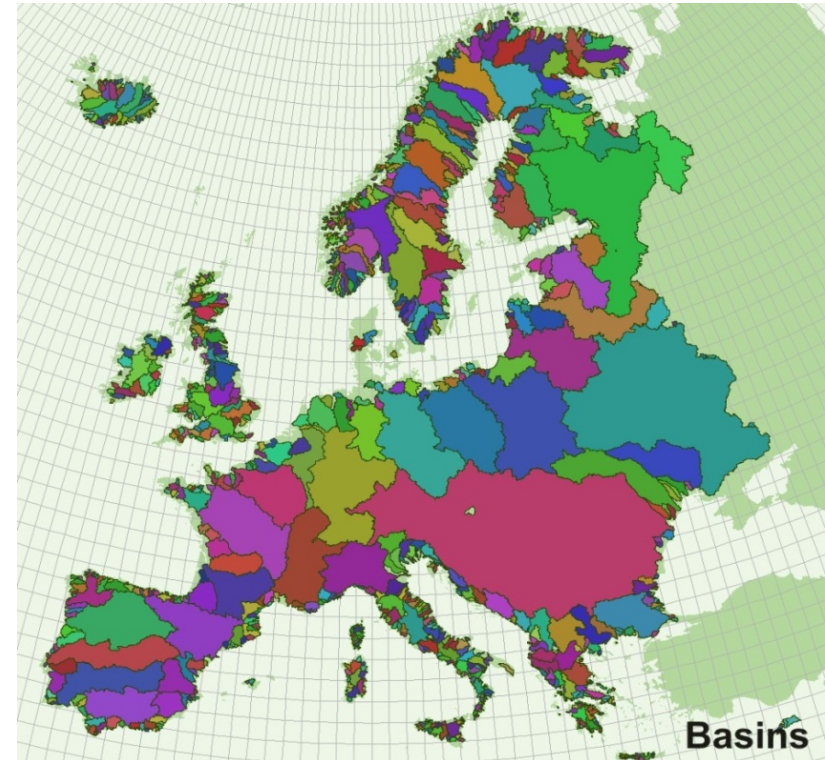
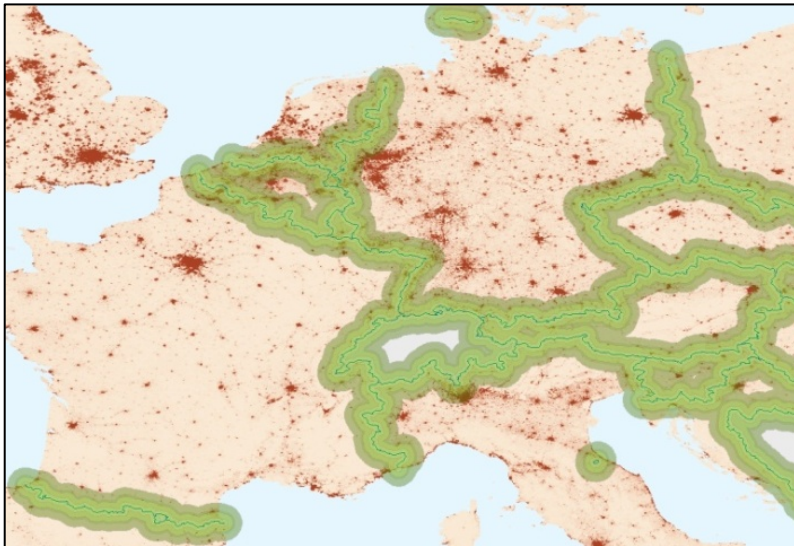
European Commission/Joint Research Centre
Institute for Environment and Sustainability
Digital Earth and Reference Data Unit



**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”

Institutional framework	Technical standards
Fundamental data sets	Data Services

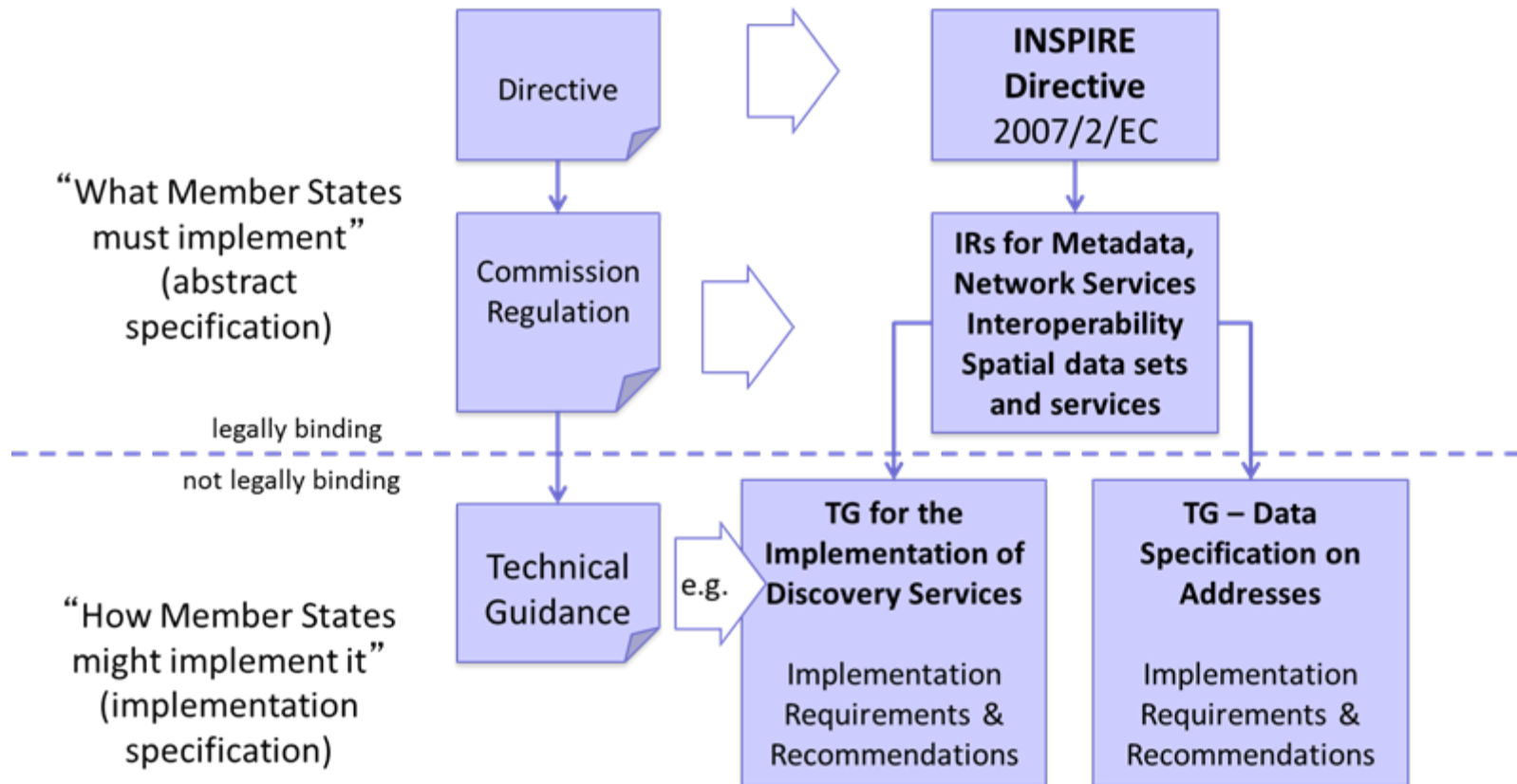
Distributed infrastructure



Set of European and national Legal Acts and their coordinated implementation

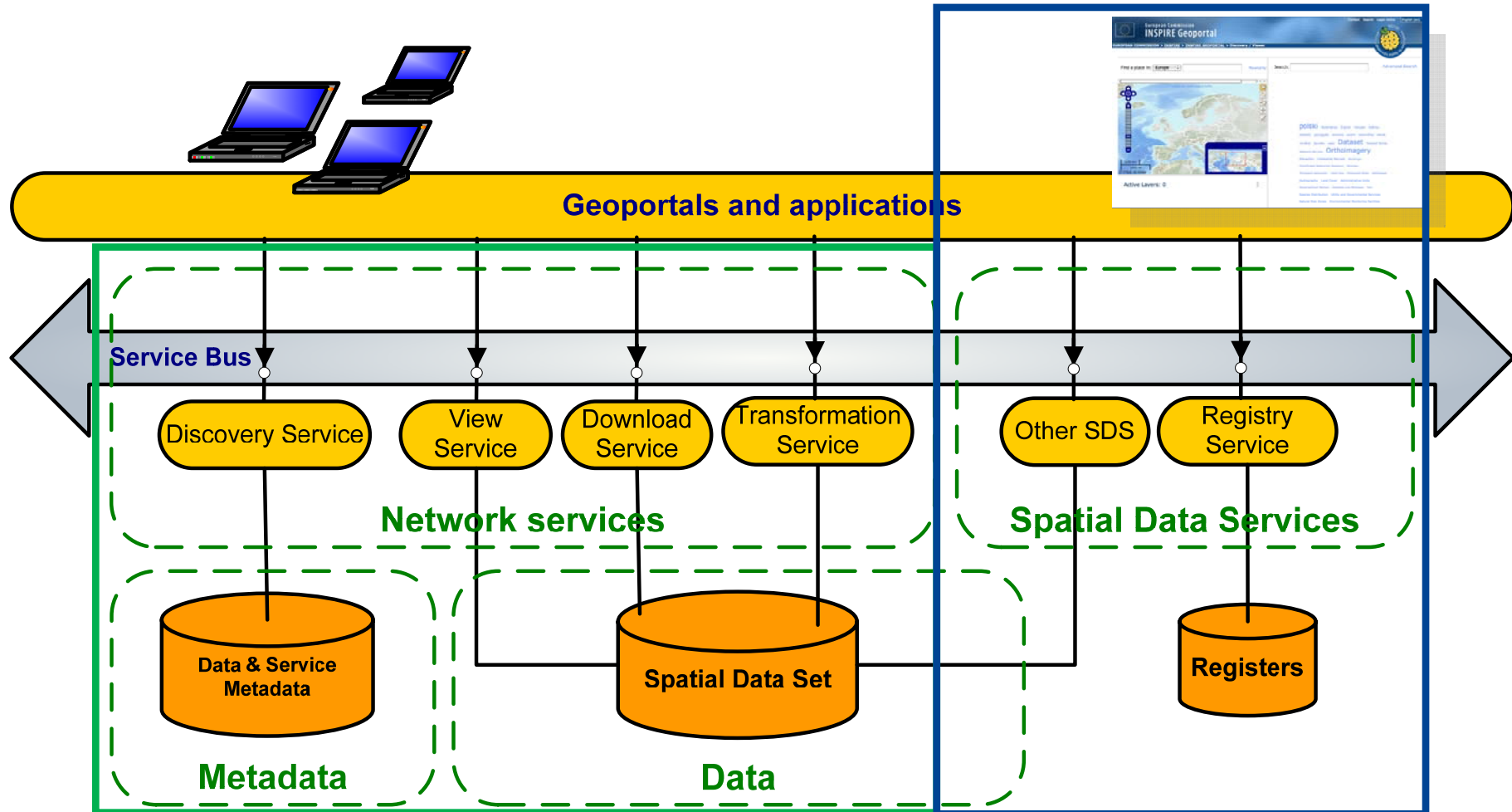
INSPIRE is built on the SDIs established and operated by the Member States

INSPIRE Directive 2007/2/EC - legal framework



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
10. Population distribution – demography

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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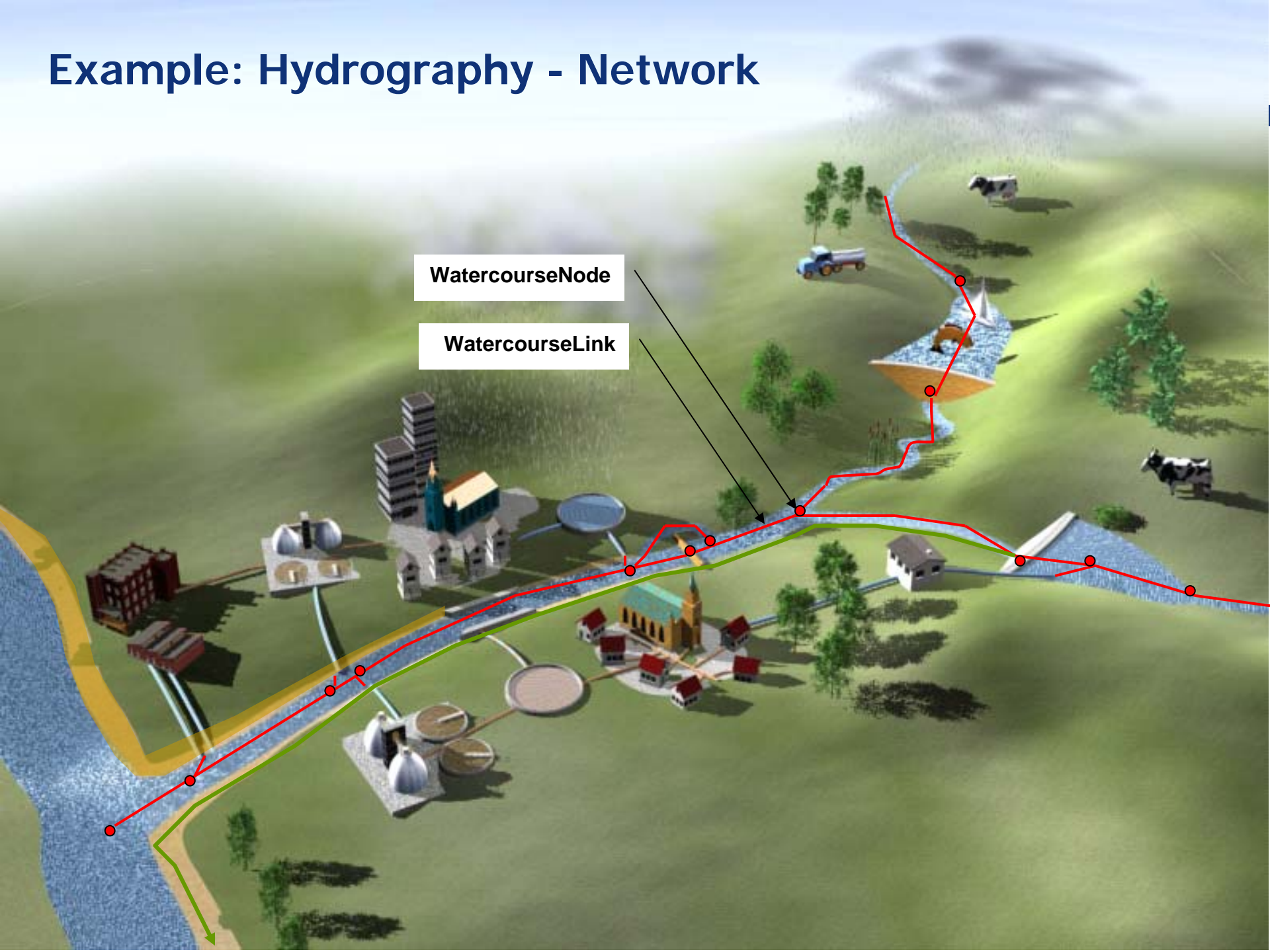
Example



Example: Hydrography – Mapping



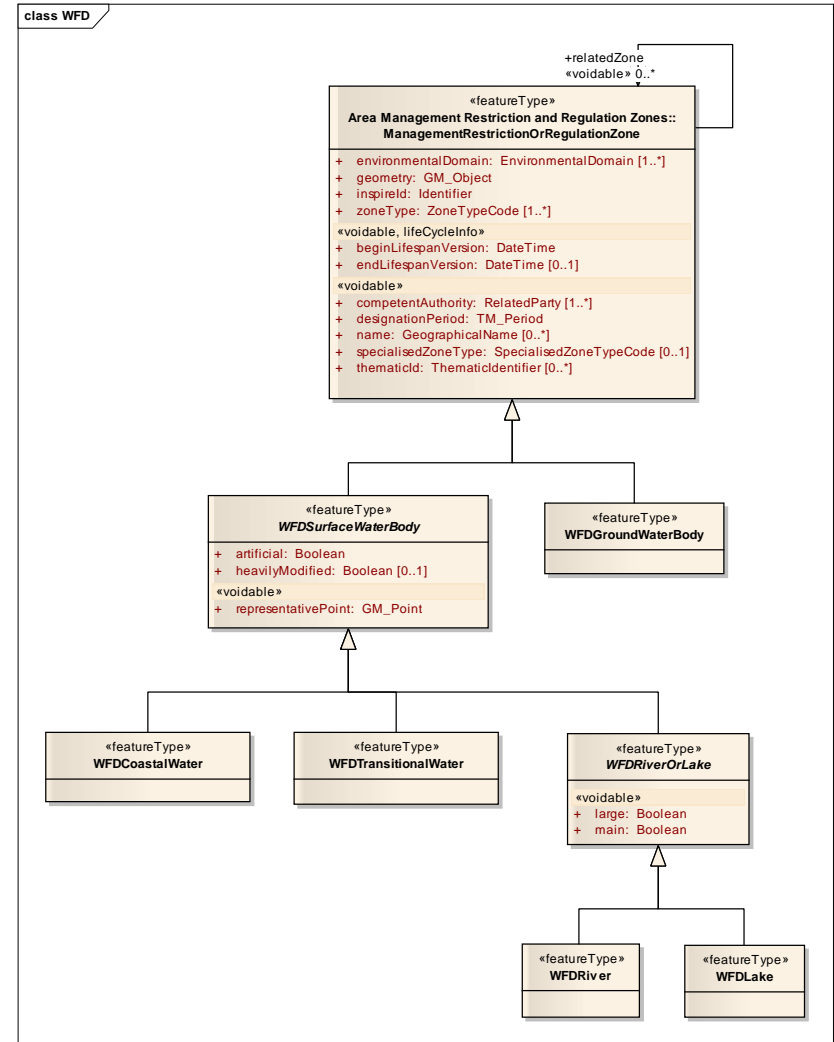
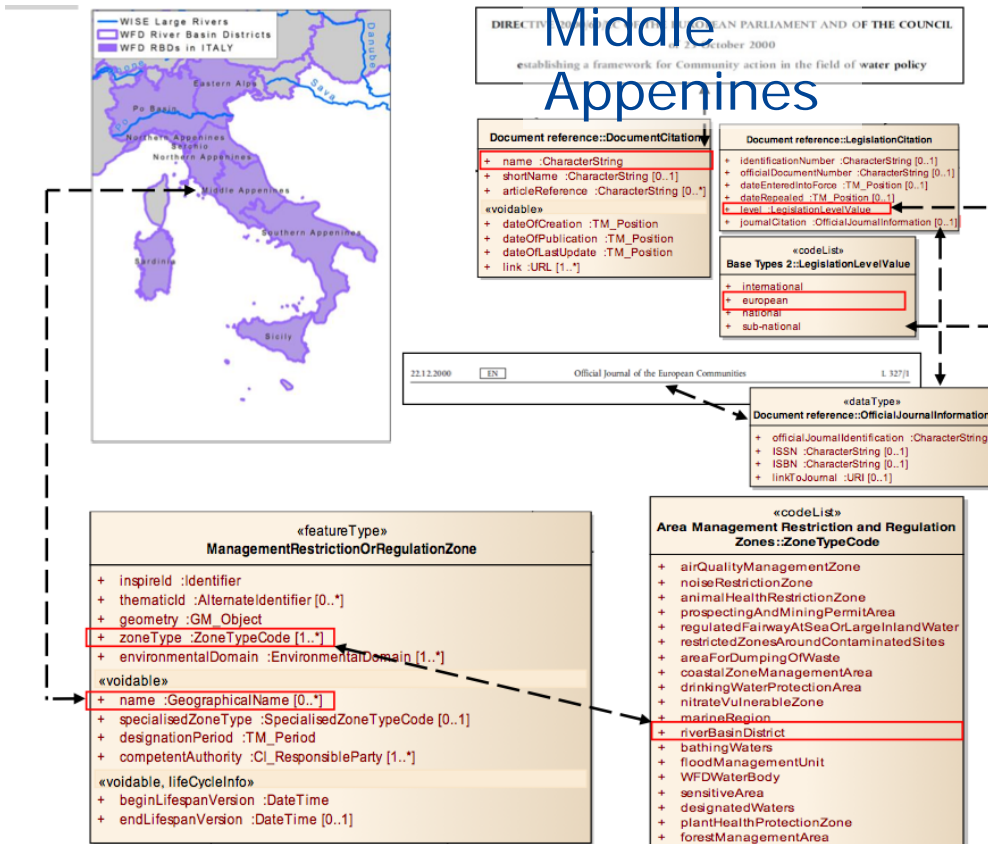
Example: Hydrography - Network



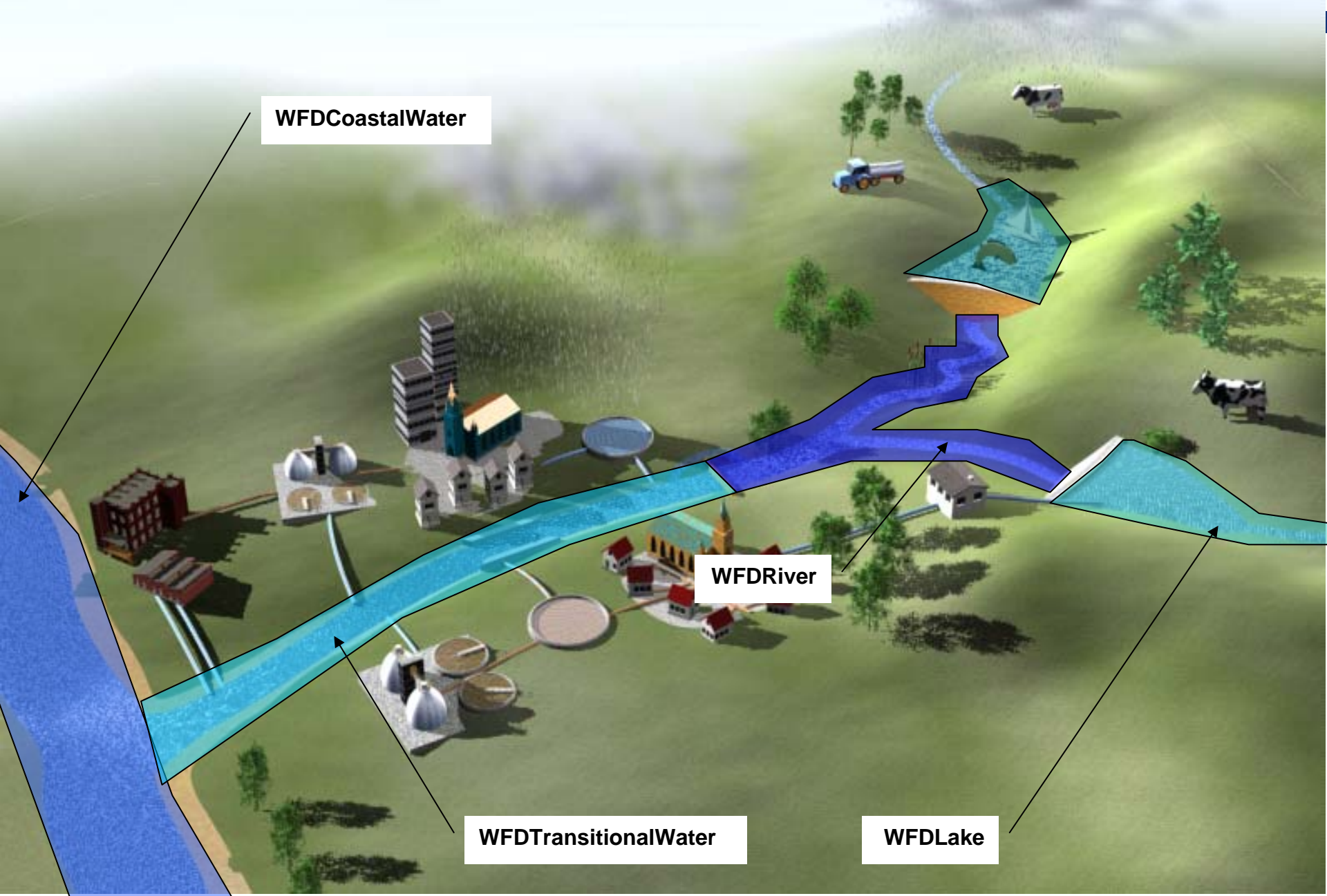
WatercourseNode

WatercourseLink

Example: River basin district



Example: Area management – WFD Reporting units



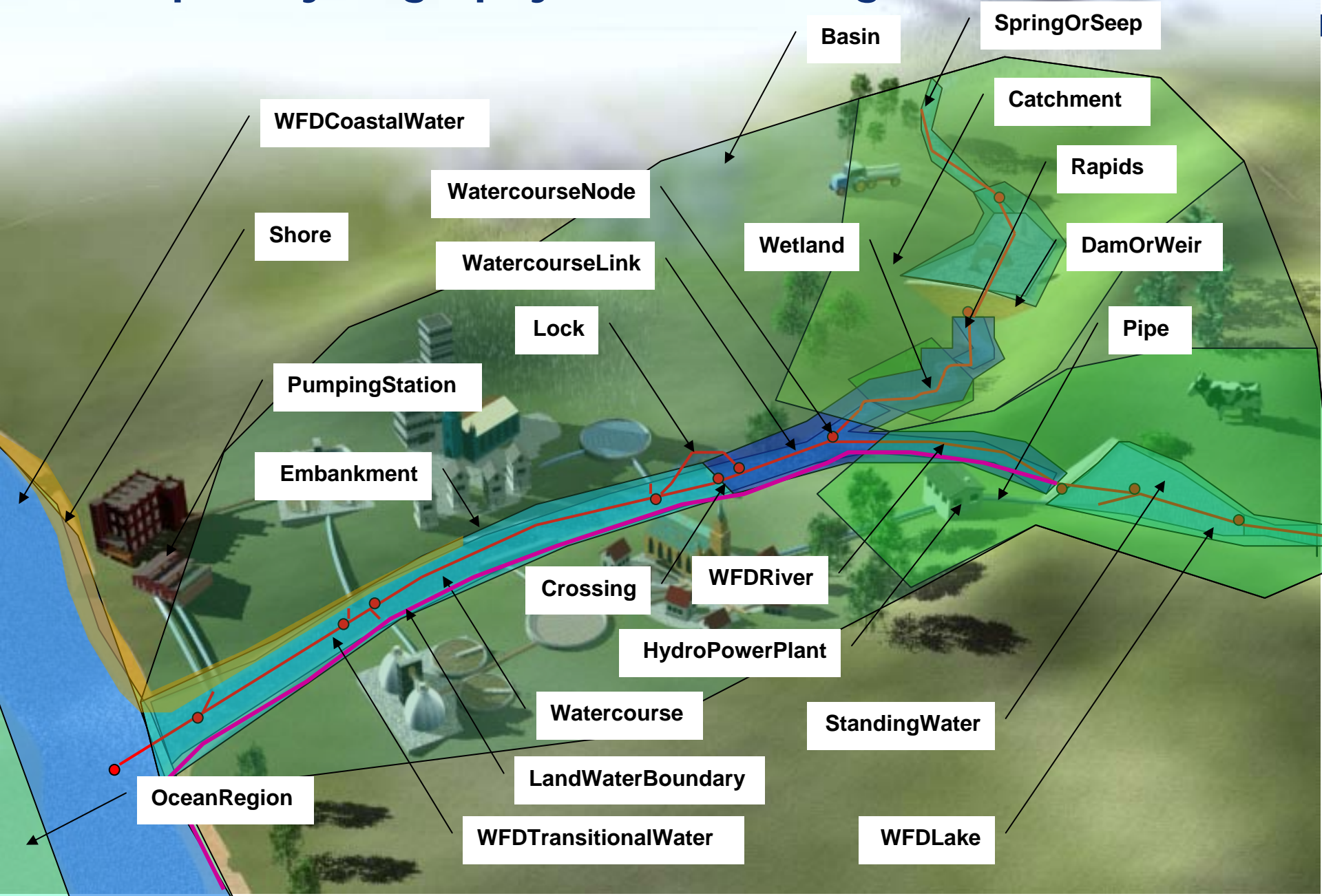
WFD Coastal Water

WFD River

WFD Transitional Water

WFD Lake

Example: Hydrography & Area management



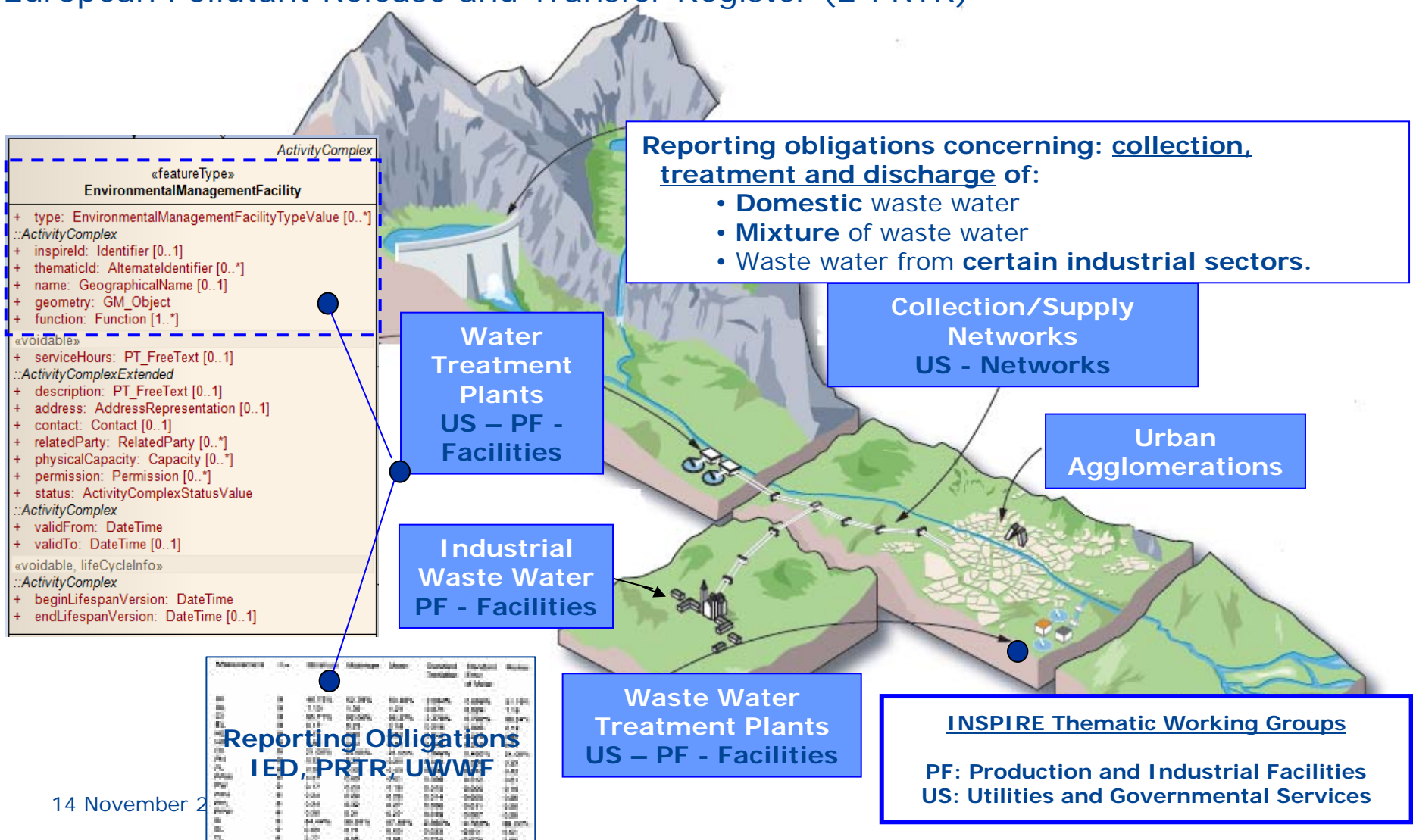
Water Framework Directive 2000/60/EC INSPIRE PILOT

- 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**.

```

ActivityComplex
«featureType»
  EnvironmentalManagementFacility
+ type: EnvironmentalManagementFacilityTypeValue [0..*]
::ActivityComplex
+ inspireId: Identifier [0..1]
+ thematicId: AlternateIdentifier [0..*]
+ name: GeographicalName [0..1]
+ geometry: GM_Object
+ function: Function [1..*]
«Voidable»
+ serviceHours: PT_FreeText [0..1]
::ActivityComplexExtended
+ description: PT_FreeText [0..1]
+ address: AddressRepresentation [0..1]
+ contact: Contact [0..1]
+ relatedParty: RelatedParty [0..*]
+ physicalCapacity: Capacity [0..*]
+ permission: Permission [0..*]
+ status: ActivityComplexStatusValue
::ActivityComplex
+ validFrom: DateTime
+ validTo: DateTime [0..1]
«voidable, lifeCycleInfo»
::ActivityComplex
+ beginLifespanVersion: DateTime
+ endLifespanVersion: DateTime [0..1]
  
```

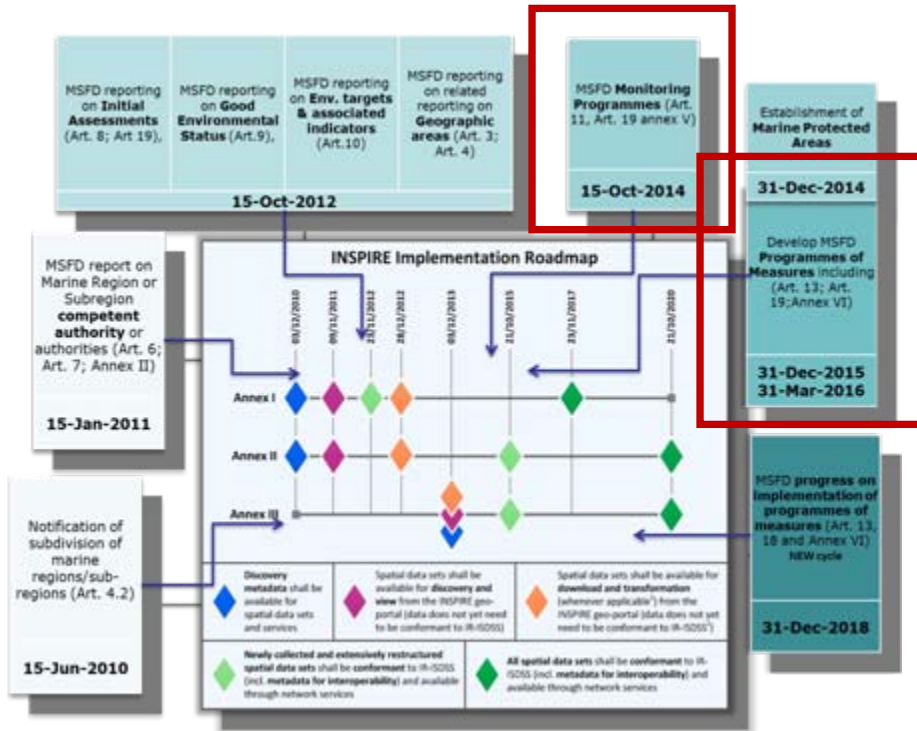
Reporting Obligations IED, PRTR, UWWF

Management	Use	Water	Management	Water	Domestic	Industrial	Waste
...

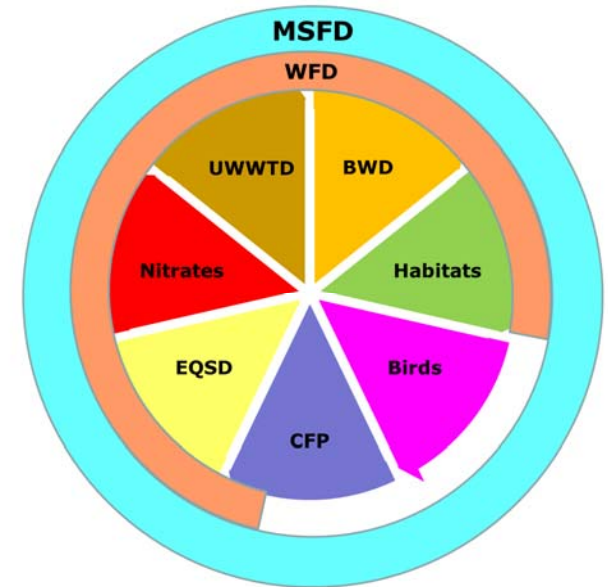
INSPIRE Thematic Working Groups

PF: Production and Industrial Facilities
US: Utilities and Governmental Services

Marine pilot – Marine Strategy Framework Directive 2008/56/EC



Integration across policies



07-Oct-2014 Call for expression of interest for individual experts and organizations to participate in the INSPIRE marine pilot –
 More info: <http://inspire.jrc.ec.europa.eu/>





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

Thank you for your attention!

Questions?