

Ympäristödirektiivien raportointivelvoitteet ja Inspiren rooli

Kansalliset paikkatietotuotteet INSPIRE-yhteensopivasti – työpaja 20.9.2016

Riitta Teiniranta
Suomen ympäristökeskus

SYKE

Miten EU:n ympäristölainsäädäntö toimii

- EU:ssa kahdenlaisia säädöksiä
  - asetukset – ovat voimassa koko EU:ssa heti hyväksymisensä jälkeen.
  - direktiivit – on saatettava osaksi kansallista lainsäädäntöä. Direktiiveissä sanotaan, mitä EU pyrkii saavuttamaan, mutta annetaan jäsenvaltioiden päättää, miten ne haluavat sen tehdä.

- EU valvoo, että säädöksiä noudatetaan. Omien tarkistustensa lisäksi komissio luottaa
  - kansallisten viranomaisten toimittamiin raportteihin sekä
  - kansalaisilta ja ympäristöjärjestöiltä saatuihin tietoihin.

SYKE

Lähde: http://ec.europa.eu/environment/basics/benefits-law/eu-environment-law/index_fi.htm

INSPIRE on ympäristödirektiivi

- Tarkoituksena on EU:n **ympäristöpolitiikkoja** ja **ympäristöön mahdollisesti vaikuttavia politiikkoja** tai toimintoja tukevan Euroopan paikkatietoinfrastruktuurin perustaminen
- Tavoitteena on yhdenmukaistaa ja systematisoida tietovarantojen halllintaa ja tehostaa niiden käytettävyyttä **erityisesti ympäristöä koskevassa päätöksen teossa.**

SYKE

Driving forces for new legislation

Government & administration
Public services
Research
Professional users
NGOs, Citizens

- Scattered data
- Unknown resources
- Unknown quality
- Repeating requests for the same data

ncreasing demands for spatial data from different domains to support environmental policies

Triggering the creation of European Spatial Data Infrastructure

FROM: several initial activities

INSPIRE
Infrastructure for Spatial Information in Europe

Environmental Thematic User Needs Position paper

Title	Environmental thematic user needs - Position Paper, Version 2
Creator	INSPIRE Environmental Thematic Coordination Group. Editor Arvid Lillethun
Date	2002-10-02
Subject	INSPIRE ETC Position Paper
Status	Final
Publisher	EEA, European Environmental Agency
Description	INSPIRE ETC Position Paper. This is the Final Position Paper of the Environmental Thematic Coordination Group. The paper describes the user needs in the environmental sector and defines possible environmental data components to be defined in the INSPIRE legislation. Together with the Position papers of the other working groups, it eventually contributes to the creation of the INSPIRE legislative framework.

TO: INSPIRE Directive in 2007

EUR-Lex Access to European Union law

32007L0002

Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

DIRECTIVES

DIRECTIVE 2007/2/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 14 March 2007

establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission,

integration, it is necessary to establish a measure of coordination between the users and providers of the information so that information and knowledge from different sectors can be combined.

(2) The Sixth Environment Action Programme adopted by Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 [9] requires full consideration to be given to ensuring that the Community's environmental policy-making is undertaken in an in-

SYKE

Ref: Darja Lihteneger, European Environment Agency
INSPIRE Conference 2012, 25.06.2012

Taustaa direktiiville: Tarve harmonisoidulle datalle

- Lack of reference and authentic data
- Difficult to obtain spatial data
  - Difficult to find
  - Cumbersome process to obtain
  - Often expensive
- Gaps in availability of spatial data and a lot of duplication at the same time
  - Date are sometimes of poor quality
- Spatial data not harmonised across borders
  - Between countries and within countries
- Difficult to interprete / understand
  - Often not documented

Natura 2000

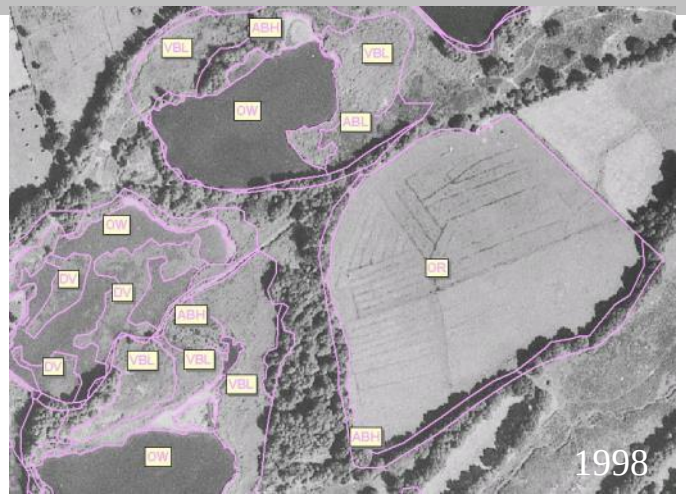
Eurosion

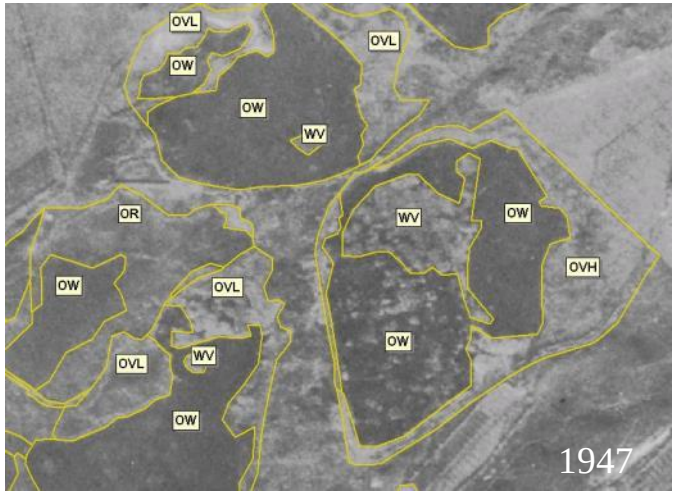
WFD

Lähde: Danny Vandenbroucke

Natura2000-verkosto ja INSPIRE

- Need for access to:
  - EU consolidated and approved data (cross-border issues)
  - New (planned) N2K sites in Member States
- Need to have access to more detailed spatial data and other environmental data (Member States)
  - Detailed topographic maps
  - Cadastral data, orthophoto's, ...
  - Habitats, species, ... distribution

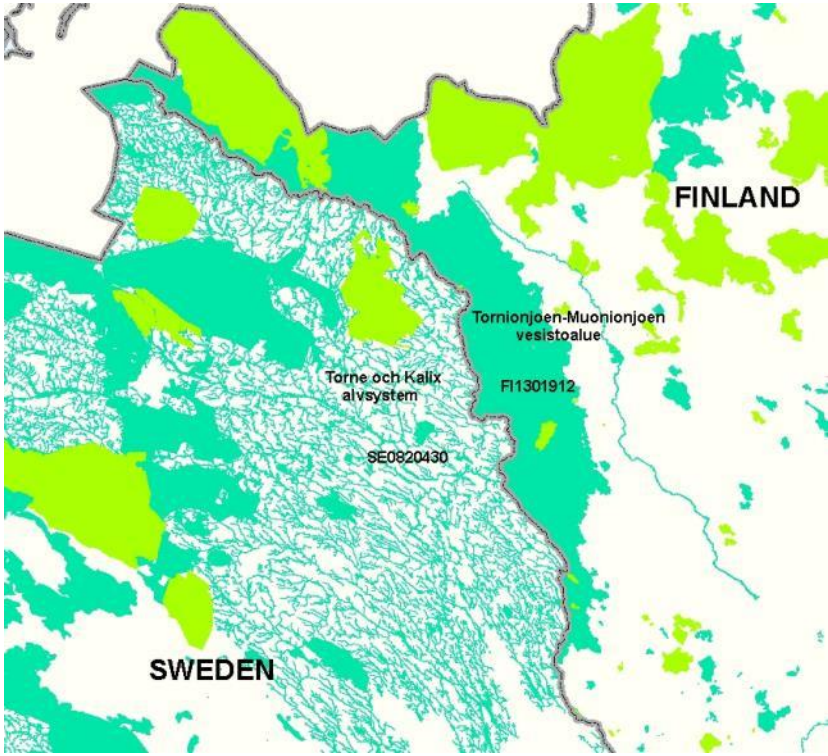


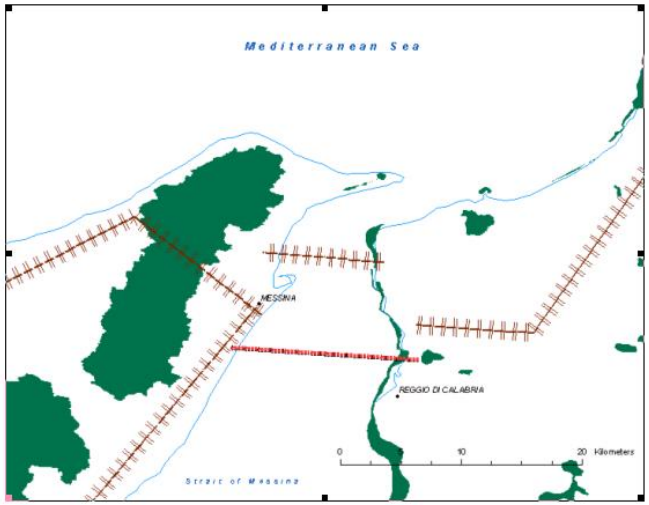


Lähde: Danny Vandenbroucke
Introduction to INSPIRE - April 2010

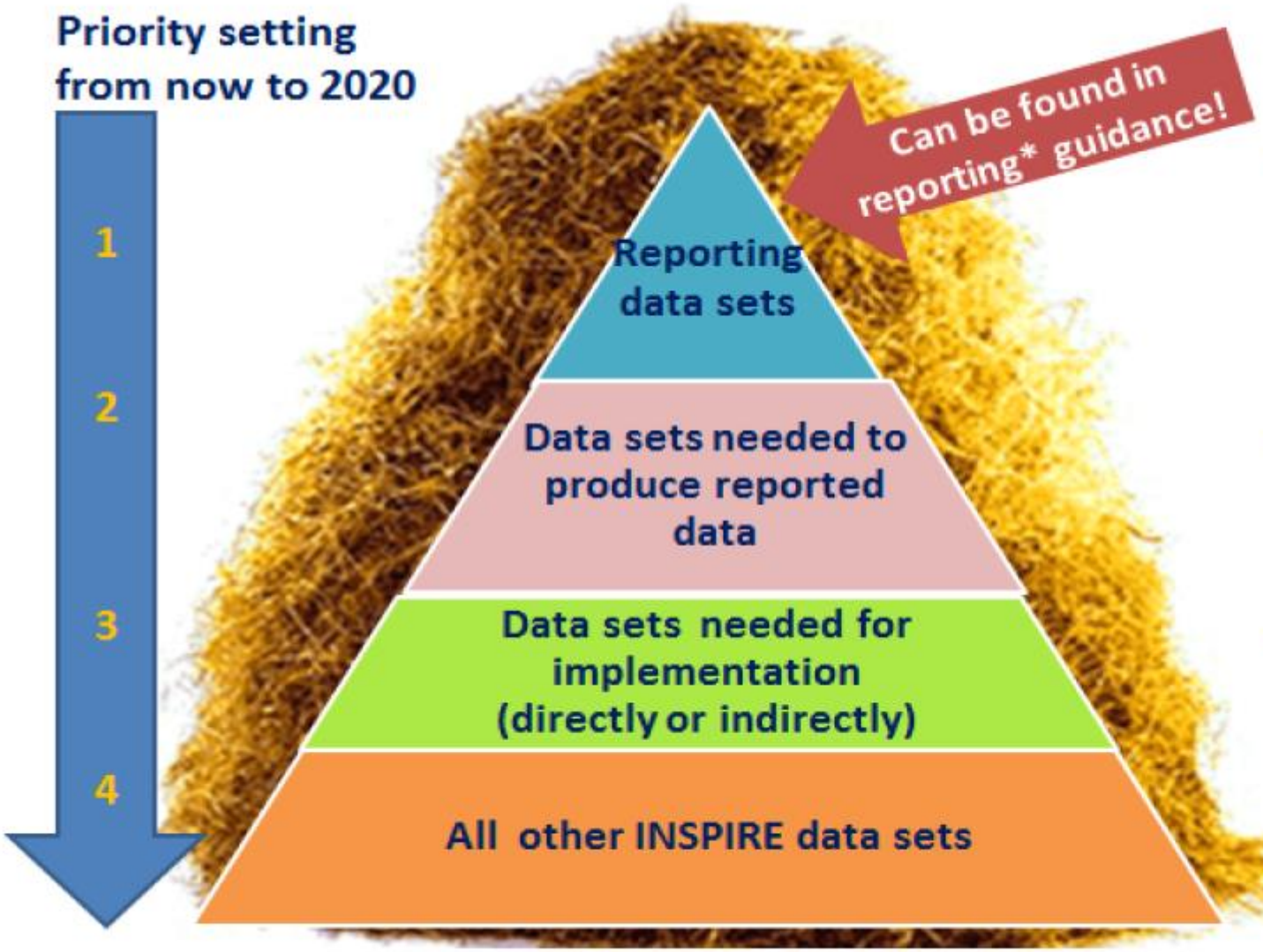
Need for data harmonisation

- Natura 2000 data
  - Need for harmonising and/or transformation to INSPIRE data specifications
- Harmonising other data sets



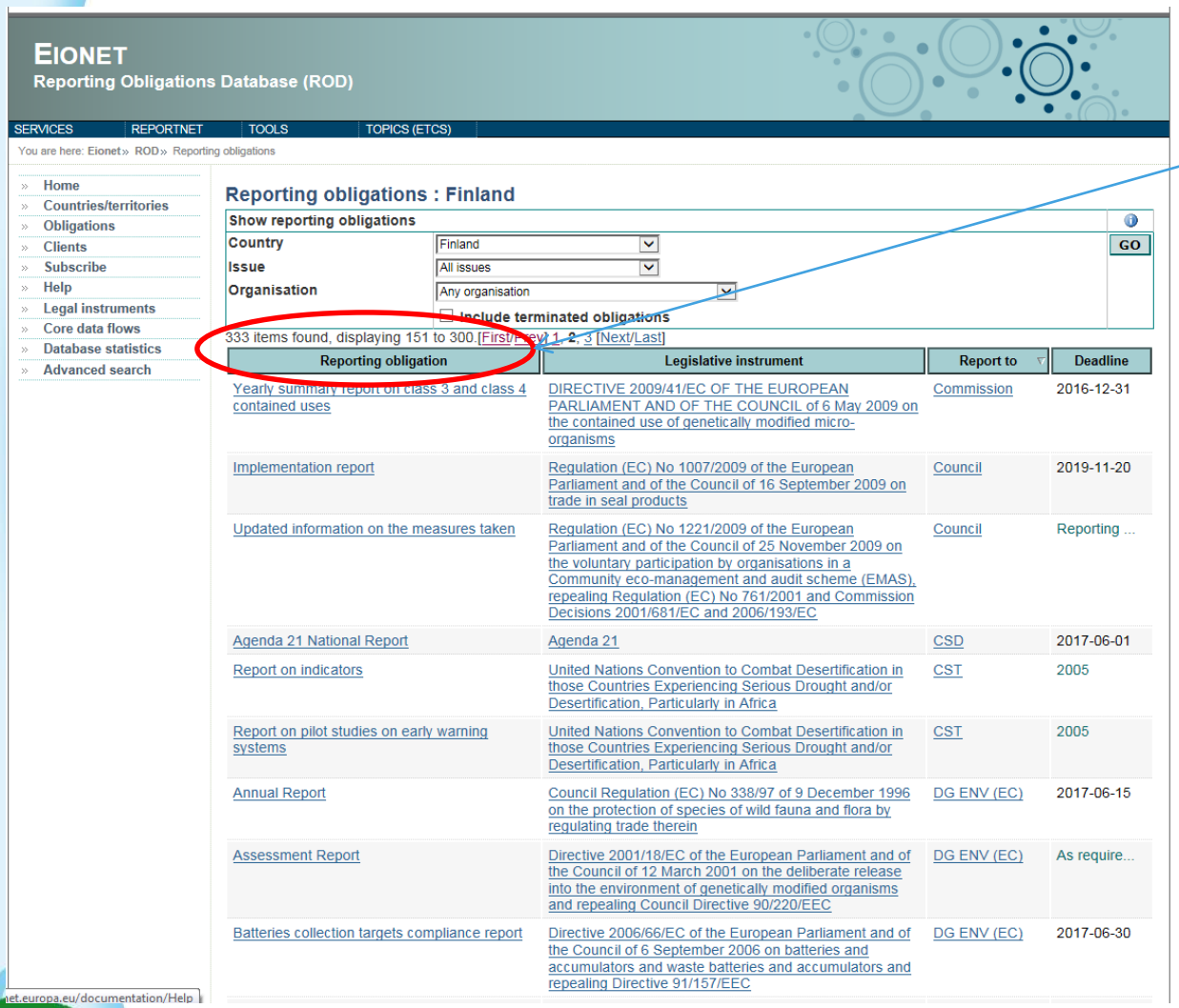


Lähde: Danny Vandenbroucke
Introduction to INSPIRE - April 2010



* Reporting Obligations Database EEA

Suomen raportointivelvoitteista



Yli 300 raportointivelvoitetta

Raportointi: Comission, Council, DG Env, Helcom, CITES, …

Lähde: Eionet, reporting obligation database

Joitakin ympäristödirektiivejä, joissa raportoidaan paikkatietoja tai joissa raportoitavia tietoja kerättäessä tarvitaan paikkatietoja

Air Quality Directive (2008/50/EC) - AQD
Bathing Water Directive (2006/7/EC) – BWD
Birds Directive (2009/147/EC)
Drinking Water Directive (98/83/EC) – DWD
Floods Directive (2007/60/EC) – FD
Habitats Directive (92/43/EEC)
Industrial Emission Directive (2010/75/EU)
Landfill of Waste (1999/31/EC)
Marine Strategy Framework Directive (2008/56/EC) – MSFD
Mining Waste directive (2006/21/EC)
Nitrates Directive (91/676/EEC) – NID
Noise Directive (2002/49/EC) – END
Urban Waste Water Treatment Directive (91/271/EEC) – UWWT
Water Framework Directive (2000/60/EC) – WFD

SYKE

INSPIRE-teemat, joilla (ainakin) on suora yhteys raportoitaviin aineistoihin

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

10. Elevation
11. Land cover
12. Orthoimagery
13. Geology

Annex III

14. **Statistical units**
15. Buildings
16. Soil
17. Land use
18. Human health and safety
19. **Utility and governmental services**
20. **Environmental monitoring facilities**
21. Production and industrial facilities
22. Agricultural and aquaculture facilities
23. Population distribution – demography
24. **Area management/restriction/regulation zones & reporting units**
25. **Natural risk zones**
26. Atmospheric conditions
27. Meteorological geographical features
28. Oceanographic geographical features
29. **Sea regions**
30. **Bio-geographical regions**
31. **Habitats and biotopes**
32. **Species distribution**
33. Energy Resources
34. Mineral Resources

Lähde: Data Specification on Area management/restriction/regulation zones and reporting units – Draft Guidelines

SYKE

Ympäristödirektiivien raportointi Suomessa

- YM vastaa yhdessä muiden ministeriöiden kanssa EU:n ympäristölainsäädännön toimeenpanosta Suomessa.
- Useat eri virastot vastaavat käytännössä raportoinnista, paikkatietoja sisältävät raportoinnit pääasiassa SYKEn ja ILn vastuulla
- Muutkin tuottavat paikkatietoja, joita käytetään joko suoraan raportoinnissa tai joiden avulla voidaan luoda raportoitavat tiedot
  - ELY-keskukset
  - Metsähallitus
  - LUKE
  - GTK
  - THL
  - LUOMUS
  - VRK
  - Tilastokeskus
  - MML
  - MAVI
  - …

SYKE

Esimerkki: Vesipuitedirektiivin raportointi

SYKE

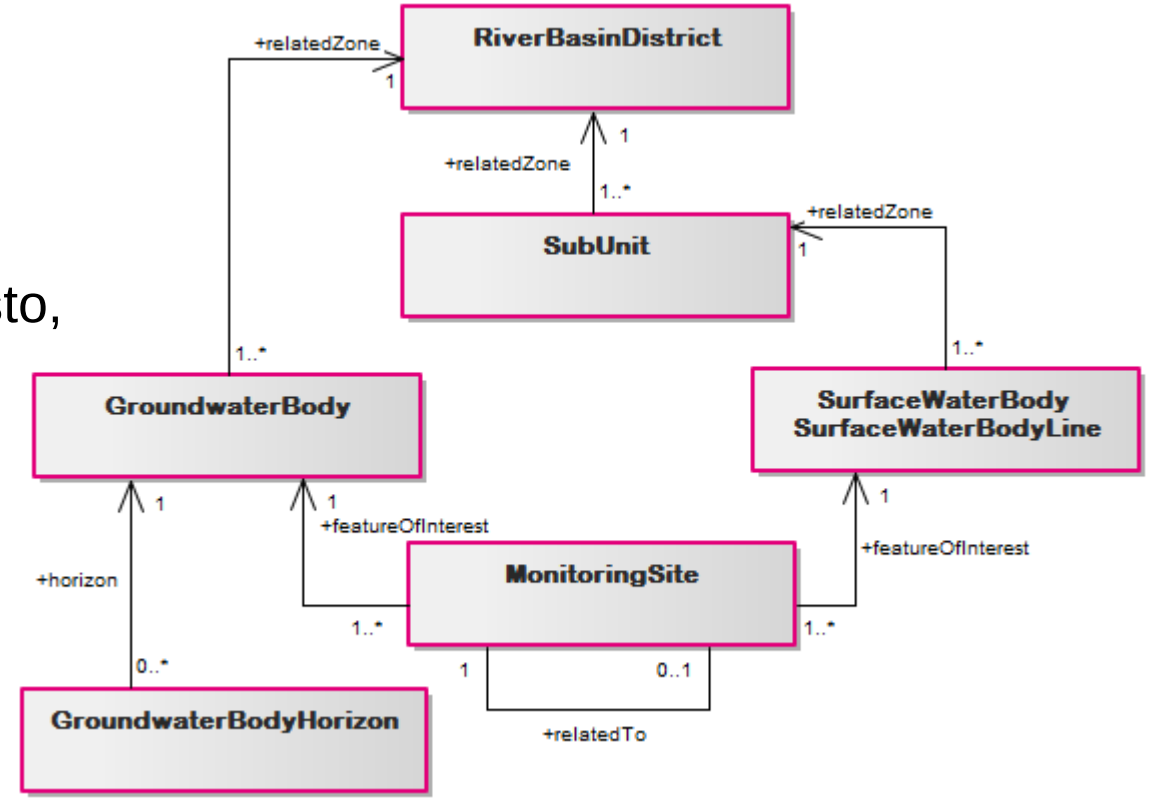
Water Framework Directive- spatial datasets to be reported – (*and Inspire-theme*)

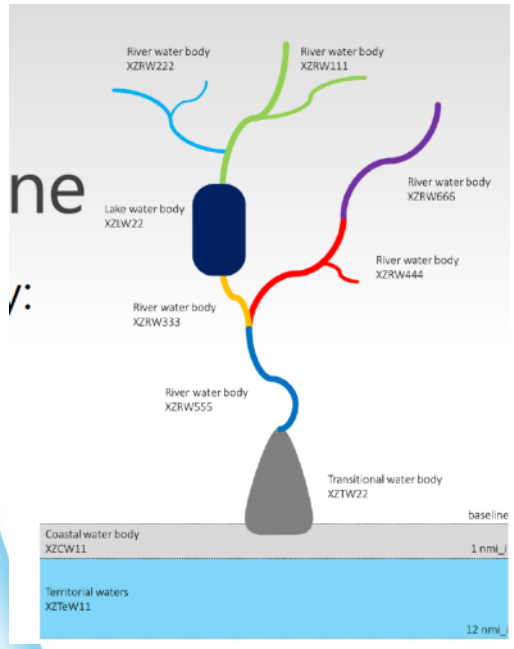
- Following spatial information are expected
  - River Basin Districts --- (*Inspire AM-theme, based on data in INSPIRE-HY theme)*
  - Sub-units (where applicable) --- (*no Inspire-theme, partly HY-theme)*
  - Ground water bodies ---- (*Inspire AM-theme, based on INSPIRE GE-theme)*
  - Surface water bodies -----(*Inspire AM-theme, based on HY-theme)*
  - Protected areas ---- (*Inspire PS-theme, also GE-theme and AM-theme)*
  - Competent Authorities ---- (*Inspire AM-theme?)*
  - Groundwater monitoring stations --- (*INSPIRE EF-theme)*
  - Surface water monitoring stations ---- (*INSPIRE EF-theme)*

SYKE

Tietomalli

- Raportoitavat tiedot /dataset
- paikkatieto gml tiedosto,
- muut tiedot xml,
- metadata xml

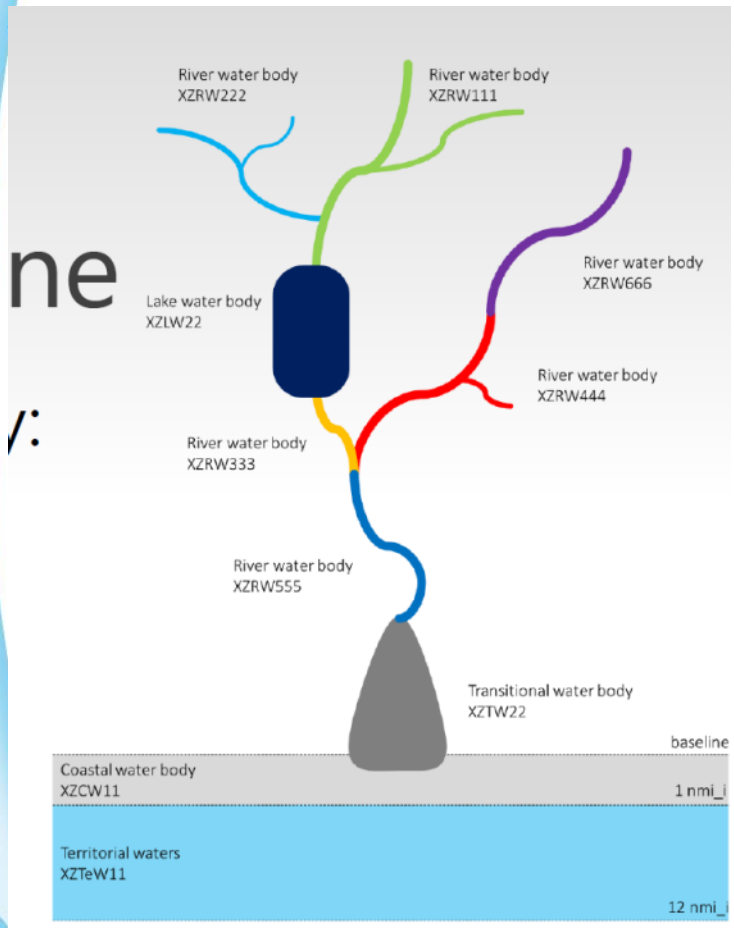




INSPIRE vrs. VPD raportointi

INSPIRE theme	INSPIRE element	#	WISE GML data element	RiverBasinDistrict	SubUnit	SurfaceWaterBody	SurfaceWaterBodyLine	GroundWaterBody	MonitoringSite	ProtectedArea	ProtectedAreaLine	ProtectedAreaPoint	GroundWaterBodyHorizon	SurfaceWaterBodyCentreline	Shapefile field name
AM | EF	geometry	1	geometry	1	1	1	1	1	1	1	1	1	1	1	shape
AM | EF	inspireId	2	inspireIdLocalId	1	1	1	1	1	1	1	1	1			localId
		3	inspireIdNamespace	1	1	1	1	1	1	1	1	1			namespace
		4	inspireIdVersionId	1	1	1	1	1	1	1	1	1			versionId
AM	thematicId	5	thematicIdIdentifier	1	1	1	1	1	1	1	1	1	1	1	thematicId
		6	thematicIdIdentifierScheme	1	1	1	1	1	1	1	1	1	1	1	themaIdSch
(from HY)	hydroId	7	hydroIdLocalId											1	hydroId
		8	hydroIdNamespace											1	namespace
AM | EF	beginLifespanVersion	9	beginLifespanVersion	1	1	1	1	1	1	1	1	1			beginLife
AM | EF	endLifespanVersion	10	endLifespanVersion	1	1	1	1	1	1	1	1	1			endLife
(concept from SU)	predecessors	11	predecessorsIdentifier	1	1	1	1	1		1	1	1			predecesId
		12	predecessorsIdentifierScheme	1	1	1	1	1		1	1	1			predeIdSch
(concept from SU)	sucessors	13	successorsIdentifier	1	1	1	1	1		1	1	1			successoId
		14	successorsIdentifierScheme	1	1	1	1	1		1	1	1			succeIdSch
EF	supersedes	15	supersedesIdentifier						1						predecesId
		16	supersedesIdentifierScheme						1						predeIdSch
EF	supersededBy	17	supersededByIdentifier						1						successoId
		18	supersededByIdentifierScheme						1						succeIdSch
(concept from SU)	evolutions	19	wiseEvolutionType	1	1	1	1	1	1	1	1	1			wEvolution
AM | EF	name	20	nameTextInternational	1	1	1	1	1	1	1	1	1			nameTxtInt
		21	nameText	1	1	1	1	1	1	1	1	1			nameText
		22	nameLanguage	1	1	1	1	1	1	1	1	1			nameTxtLan
from HY	geographicalName	23	geographicalNameText											1	geonameTxt
		24	geographicalNameLanguage											1	geonamTxtL
AM	designationPeriod	25	designationPeriodBegin	1	1	1	1	1		1	1	1			desigBegin
		26	designationPeriodEnd	1	1	1	1	1		1	1	1			desigEnd
EF	operationalActivity	27	operationalActivityPeriodBegin						1						opActBegin
		28	operationalActivityPeriodEnd						1						opActEnd
AM	zoneType	29	zoneType	1	1	1	1	1		1	1	1			zoneType
AM	specialisedZoneType	30	specialisedZoneType		1	1	1	1		1	1	1			spZoneType
AM	legalBasis	31	legalBasisName							1	1	1			legisName
		32	legalBasisLink							1	1	1			legisLink
		33	legalBasisLevel							1	1	1			legisLevel
AM	relatedZone	34	relatedZoneIdentifier		1	1	1	1							rZoneId
		35	relatedZoneIdentifierScheme		1	1	1	1							rZoneIdSch

Pintavesimuodostuma -schema



gml:AbstractFeatureType

«FeatureType»
SurfaceWaterBody

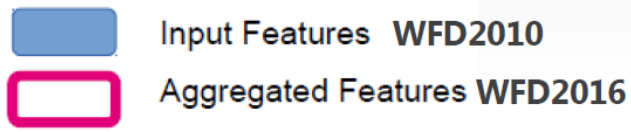
- \+ inspireLocalId: String100Type
- \+ inspireIdNamespace: CharacterString [0..1]
- \+ inspireIdVersionId: CharacterString [0..1]
- \+ thematicIdIdentifier: FeatureUniqueEUCodeType
- \+ thematicIdIdentifierScheme: CharacterString = euSurfaceWaterB...
- \+ beginLifespanVersion: DateType [0..1]
- \+ endLifespanVersion: DateType [0..1]
- \+ predecessorsIdentifier: CharacterString [0..1]
- \+ predecessorsIdentifierScheme: CharacterString [0..1] = euSurfaceWaterB...
- \+ successorsIdentifier: CharacterString [0..1]
- \+ successorsIdentifierScheme: CharacterString [0..1] = euSurfaceWaterB...
- \+ wiseEvolutionType: EvolutionTypeValue
- \+ nameTextInternational: CharacterString [0..1]
- \+ nameText: CharacterString
- \+ nameLanguage: LanguageCode_Enum
- \+ designationPeriodBegin: DateType
- \+ designationPeriodEnd: DateType [0..1]
- \+ zoneType: ZoneTypeCode = waterBody
- \+ specialisedZoneType: SpecialisedZoneType
- \+ relatedZoneIdentifier: FeatureUniqueEUCodeType
- \+ relatedZoneIdentifierScheme: CharacterString = euSubUnitCode
- \+ relatedZoneTransboundaryIdentifier: CharacterString [0..1]
- \+ relatedZoneTransboundaryIdentifierScheme: CharacterString [0..1]
- \+ sizeValue: double
- \+ sizeUoM: SizeValueUnit
- \+ meanDepth: double [0..1]
- \+ link: URLType [0..1]
- \+ geometry: GM_MultiSurface

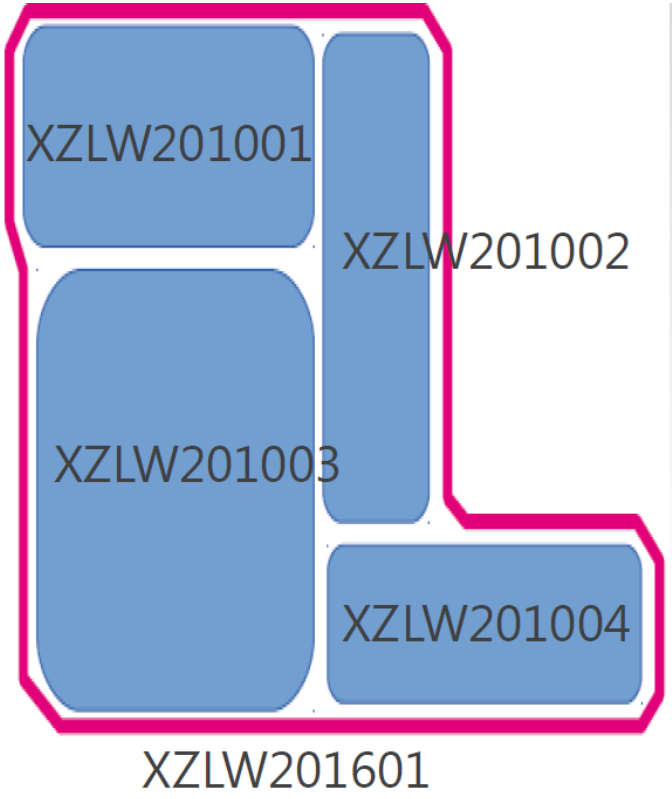
SYKE

Elinkaarisäännöistä ohjeet

2. Life cycle management

Aggregate predecessors



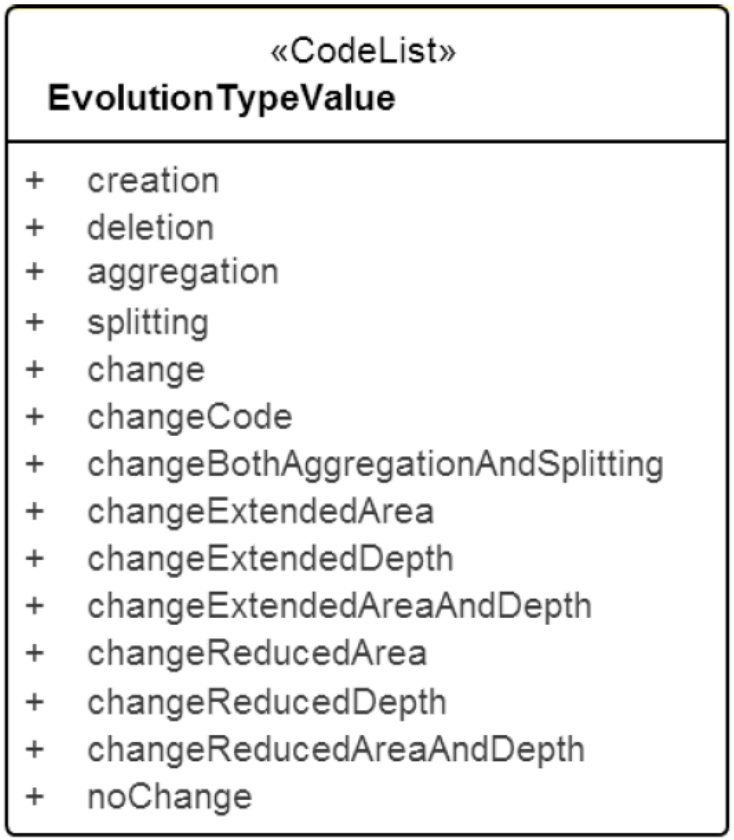


thematicID Identifier	Predecessor Identifier	beginLifeSpan Version	wiseEvolution Type
XZLW201601	XZLW201001,XZLW201002, XZLW201003,XZLW201004	2016-01-01	aggregation

(*) data shown are examples

Koodilistoja on useita

Figure 35. Valid options for the wiseEvolutionType element.



SYKE

Ympäristödirektiivien raportointi

- Inspire tietotuote ≠ raportoitava tieto

- Raportointi tyypillisesti 1v, 3v tai 6v välein
- Ohjeet muuttuvat jokaiselle raportointikierrokselle
- Tavoitteena ottaa myös INSPIRE-vaatimukset huomioon
- Paikkatiedot vain osa raportointia
- Tiedot kerätään datavarastoihin, tietojen muuttaminen vaatii elinkaaritietojen ylläpidon
- Tiedot validoidaan automaattisesti kullekin raportoinnille asetettujen perusteiden mukaisesti, vaativat usein säätöä raportointivaiheessa (konsultti/EU ja MS keskustelut), raportointiin käytettävä aika kasvaa

Haasteita luvassa ☺

SYKE

Kiitos!



Valokuvat: Riitta Teiniranta