ISPRA LOD AND MARINE MONITORING NETWORK

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Virtuoso SPARQL Query Editor

Default Data Set Name (Graph IRI)

Query Text

```
select distinct ?tree ?scientificname ?rigthsdesc ?labelPlace_ibc
?hectareconsumed
where {
?tree <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
.......

  FILTER(?labelPlace_ibc = "Bologna")
SERVICE <http://dati.isprambiente.it/sparql>
{    ?indicator <http://purl.org/dc/terms/type>
<http://dati.isprambiente.it/id/skos/sc/C1>;
    <http://purl.org/dc/terms/isPartOf> ?collection;
    <http://www.w3.org/1999/02/22-rdf-syntax-ns#value> ?hectareconsumed.

?collection <http://xmlns.com/foaf/0.1/primaryTopic> ?place.

?place <http://www.w3.org/2000/01/rdf-schema#label>  "Cotignola";
    <http://www.geonames.org/ontology#parentADM1>
<http://dati.isprambiente.it/id/place/emilia-romagna>.
}
```

(Security restrictions of this server do not allow you to retrieve remote RDF data, see details.)

Results Format: HTML

Execution timeout: 0   milliseconds (values less than 1000 are ignored)

Options: ☑ Strict checking of void variables   ☐ Log debug info at the end of output (has no effect on some queries and output formats)

(The result can only be sent back to browser, not saved on the server, see details)

    Run Query   Reset

LOD FEDERATED QUERY

Soil consumption indicator

tree	scientificname	rigthsdesc	labelPlace_ibc	hectareconsumed
http://dati.emilia-romagna.it/id/ibc/tree/59	"Quercus robur"	"vincolo per monumentalità"	Bologna	"380.765"^^<http://qudt.org/1.1/vocab/unit#Hectare>
http://dati.emilia-romagna.it/id/ibc/tree/720	"Quercus robur"	"vincolo per monumentalità"	Bologna	"380.765"^^<http://qudt.org/1.1/vocab/unit#Hectare>
http://dati.emilia-romagna.it/id/ibc/tree/721	"Platanus hybrida"	"vincolo per monumentalità"	Bologna	"380.765"^^<http://qudt.org/1.1/vocab/unit#Hectare>
http://dati.emilia-romagna.it/id/ibc/tree/group/629	"Tilia sp."	"vincolo per monumentalità"	Bologna	"380.765"^^<http://qudt.org/1.1/vocab/unit#Hectare>

ISPRA response

Una Quercia Crespellano Via S. Savino, 34
http://dati.emilia-romagna.it/id/ibc/tree/59

ENTITÀ DI TIPO: **LivingSpecimen**

Leaflet | © OpenStreetMap contributors

rdfs:**label**	Una Quercia Crespellano Via S. Savino, 34 @it
dwc:**scientificName**	Quercus robur
geo:**long**	11.11749509
geo:**lat**	44.50316604
dc:**type**	albero singolo

inspire-ef:EnvironmentalMonitoringFacility.mobile	false	xsd:boolean
inspire-ef:AbstractMonitoringObject.name	Ancona Buoy	
rdfs:label	Ancona Buoy (Environmental Monitoring Facility)	
inspire-ef:AbstractMonitoringObject.mediaMonitored	<http://inspire.ec.europa.eu/codelist/MediaValue/water>	
inspire-ef:EnvironmentalMonitoringFacility.measurementRegime	<http://inspire.ec.europa.eu/codelist/MeasurementRegimeValue/periodicDataCollection>	
inspire-ef:EnvironmentalMonitoringFacility.resultAcquisitionSource	<http://inspire.ec.europa.eu/codelist/ResultAcquisitionSourceValue/inSitu>	
inspire-ef:AbstractMonitoringObject.broader	<http://dati.isprambiente.it/ld/ron/anconasea> ↳ Adriatic Sea near Ancona (Environmental Monitoring Facility)	
inspire-ef:AbstractMonitoringObject.responsibleParty	<http://dati.isprambiente.it/id/organization/ispra>	
inspire-ef:EnvironmentalMonitoringFacility.specialisedEMFType	<http://codes.wmo.int/bufr4/codeflag/0-02-149/25>	
	<http://codes.wmo.int/bufr4/codeflag/0-02-149/34>	
	<http://codes.wmo.int/bufr4/codeflag/0-02-149/35>	
rdf:type	inspire-ef:EnvironmentalMonitoringFacility	
foaf:depiction	<http://dati.isprambiente.it/ron/Watchkeeper.JPG>	

ENVIRONMENTAL MONITORING FACILITY LOD

Adriatic Sea near Ancona (Environmental Monitoring Facility)

http://dati.isprambiente.it/ld/ron/anconasea

ENTITÀ DI TIPO: **EnvironmentalMonitoringFacility**

dcterms:**description**	Sea area in front of Ancona (Italy)	
inspire-ef:**AbstractMonitoringObject.geometry**	13.710,43.832	<gmlLiteral>
inspire-ef:**EnvironmentalMonitoringFacility.mobile**	false	xsd:boolean
inspire-ef:**AbstractMonitoringObject.name**	Ancona Sea Area	
rdfs:**label**	Adriatic Sea near Ancona (Environmental Monitoring Facility)	
inspire-ef:**AbstractMonitoringObject.mediaMonitored**	<http://inspire.ec.europa.eu/codelist/MediaValue/water>	
inspire-ef:**EnvironmentalMonitoringFacility.measurementRegime**	<http://inspire.ec.europa.eu/codelist/MeasurementRegimeValue/periodicDataCollection>	

inspire-ef:**EnvironmentalMonitoringFacility.mobile**	false	xsd:boolean
inspire-ef:**AbstractMonitoringObject.name**	Ancona Buoy	
rdfs:**label**	Ancona Buoy (Environmental Monitoring Facility)	
inspire-ef:**AbstractMonitoringObject.mediaMonitored**	\<http://inspire.ec.europa.eu/codelist/MediaValue/water\>	
inspire-ef:**EnvironmentalMonitoringFacility.measurementRegime**	\<http://inspire.ec.europa.eu/codelist/MeasurementRegimeValue/periodicDataCollection\>	
inspire-ef:**EnvironmentalMonitoringFacility.resultAcquisitionSource**	\<http://inspire.ec.europa.eu/codelist/ResultAcquisitionSourceValue/inSitu\>	
inspire-ef:**AbstractMonitoringObject.broader**	\<http://dati.isprambiente.it/ld/ron/anconasea\> ↳ Adriatic Sea near Ancona (Environmental Monitoring Facility)	
inspire-ef:**AbstractMonitoringObject.responsibleParty**	\<http://dati.isprambiente.it/id/organization/ispra\>	
inspire-ef:**EnvironmentalMonitoringFacility.specialisedEMFType**	\<http://codes.wmo.int/bufr4/codeflag/0-02-149/25\>	
	\<http://codes.wmo.int/bufr4/codeflag/0-02-149/34\>	
	\<http://codes.wmo.int/bufr4/codeflag/0-02-149/35\>	
rdf:**type**	inspire-ef:EnvironmentalMonitoringFacility	
foaf:**depiction**	\<http://dati.isprambiente.it/ron/Watchkeeper.JPG\>	

Environmental Monitoring Facility LOD

http://dati.isprambiente.it/ld/ron/ancona/wave.201312/obsprop

ENTITÀ DI TIPO: **GF_PropertyType**

dcterms:**description**	Observed Phenomenon - Sea State
inspire-ef:**GF_PropertyType.definition**	Sea State (wave heights, periods, directions)
inspire-ef:**GF_PropertyType.memberName**	Sea State
rdfs:**label**	Observable Property (Property Type)
rdf:**type**	inspire-ef:GF_PropertyType

RELAZIONI INVERSE

è inspire-ef:**ObservingCapability.observedProperty** ... risorsa

...isprambiente.it/ld/ron/ancona/wave.201312>
... capability for wave data (Observing Capability)

è inspire-ef:**OM_Observation.observedProperty** ... risorsa

<http://dati.ispr...e.it/ld/ron/ancona/wave.201312/obs>
↳ Wave Observati...n Ancona, December 2013 (Observation)

Navigate through the OM observation property relate to Ancona Buoy

Onde ad Ancona

https://dati.isprambiente.it/ld/ron/ancona89/wave

dcat:**mediaType**	text/csv
<http://www.w3.org/ns/sosa/**resultTime**>	2019-01-01T00:00:00.000Z
ispra:**obsCount**	66410
rdfs:**label**	EN IT
	Wave near Ancona
<http://www.w3.org/ns/sosa/**observedProperty**>	<https://dati.isprambiente.it/ld/common/properties/water> ↳ Acqua
	....
	<https://dati.isprambiente.it/ld/common/properties/water/seastate> ↳ Stato del mare

Procedura di calcolo dei dati ondametrici

https://dati.isprambiente.it/ld/ron/procedure/wave

<http://www.w3.org/ns/sosa/**Procedure**>

dcterms:**description**	The process for wave data is based on Spectral Analysis @en
rdfs:**label**	EN IT
	Process for wave data
<http://www.w3.org/ns/ssn/**hasInput**>	<https://dati.isprambiente.it/ld/ron/wave/par/hne>
<http://www.w3.org/ns/ssn/**hasOutput**>	<https://dati.isprambiente.it/ld/ron/wave/par/dir>
	<https://dati.isprambiente.it/ld/ron/wave/par/hm0>
	<https://dati.isprambiente.it/ld/ron/wave/par/tm>
	<https://dati.isprambiente.it/ld/ron/wave/par/tp>
rdf:**type**	<http://www.w3.org/ns/sosa/Procedure>

ssn:wasOriginatedBy **ONLY** ssn:Stimulus
sosa:phenomenonTime **EXACTLY 1**
sosa:hasResult **MIN 1**
sosa:hasResult **ONLY** sosa:Result
sosa:resultTime **EXACTLY 1**

[Hide additional SSN axioms][Back to module overview and examples][Back to top]

4.3.2.3 sosa:observedProperty

IRI: http://www.w3.org/ns/sosa/observedProperty

a OWL Object Property

observed property - Relation linking an Observation to the property that was observed. The ObservableProperty should be a property of the FeatureOfInterest (linked by hasFeatureOfInterest) of this Observation.

Domain Includes   sosa:Observation

Range Includes   sosa:ObservableProperty

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Schema del file per le osservazioni ondametriche

https://dati.isprambiente.it/ld/ron/schema/wave

rdfs:**label**	EN IT
	File schema for wave data
<http://www.w3.org/ns/**csvwcolumn**>	<https://dati.isprambiente.it/ld/ron/schema/wave/date>
	<https://dati.isprambiente.it/ld/ron/schema/wave/dir>
	<https://dati.isprambiente.it/ld/ron/schema/wave/hm0>
	<https://dati.isprambiente.it/ld/ron/schema/wave/tm>
	<https://dati.isprambiente.it/ld/ron/schema/wave/tp>
rdf:**type**	<http://www.w3.org/ns/csvwSchema>

Wave measurement in Ancona, December 2013 (Values)

http://dati.isprambiente.it/ld/ron/ancona/wave.201312/result

rdfs:label	Wave measurement in Ancona, December 2013 (Values)
dcat:downloadURL	<http://dati.isprambiente.it/ron/ancona/wave.201312.csv>
<http://www.w3.org/ns/csvw#tableSchema>	<http://dati.isprambiente.it/id/schema/wave>

UTC	Hm0	Dir	Tm	Tp
01/12/13 00:00	1.82	34.4	4.5	6.1
01/12/13 00:30	1.88	27.3	4.4	4.8
01/12/13 01:00	1.99	36.8	4.6	6.1
01/12/13 01:30	1.85	32.2	4.5	5.7
01/12/13 02:00	1.94	33.8	4.5	5.9
01/12/13 02:30	1.95	26.1	4.6	5.9
01/12/13 03:00	1.93	27.2	4.8	6.1
01/12/13 03:30	2	30.6	4.8	6.3
01/12/13 04:00	1.94	25	4.7	6.5
01/12/13 04:30	2.16	25.7	4.9	6.5
01/12/13 05:00	2.2	22.4	5	6.3
01/12/13 05:30	2.11	26.4	4.9	6.7
01/12/13 06:00	2.08	32	4.9	5.7
01/12/13 06:30	2	28.1	4.8	6.9
01/12/13 07:00	2.26	29.5	5	6.3
01/12/13 07:30	2.36	34.1	5.1	6.3
01/12/13 08:00	2.52	40.9	5.3	6.7
01/12/13 08:30	2.15	40.4	5.1	6.5
01/12/13 09:00	2.26	41.5	5.1	6.9
01/12/13 09:30	2.59	39.4	5.4	6.7
01/12/13 10:00	2.45	40.8	5.4	6.7
01/12/13 10:30	2.3	41.9	5.2	7.1
01/12/13 11:30	2.29	38.9	5	6.7
01/12/13 12:00	2.54	36.3	5.3	6.7
01/12/13 12:30	2.37	41.1	5.2	6.5
01/12/13 13:00	2.37	40.5	5.3	7.4
01/12/13 13:30	2.64	33.5	5.4	6.9
01/12/13 14:00	2.56	37.8	5.5	7.7
01/12/13 14:30	2.71	35.8	5.6	7.4
01/12/13 15:00	2.26	41.6	5.1	6.7
01/12/13 15:30	2.33	44.1	5.1	6.5

USAGE OF ISPRA LOD

Number of PA
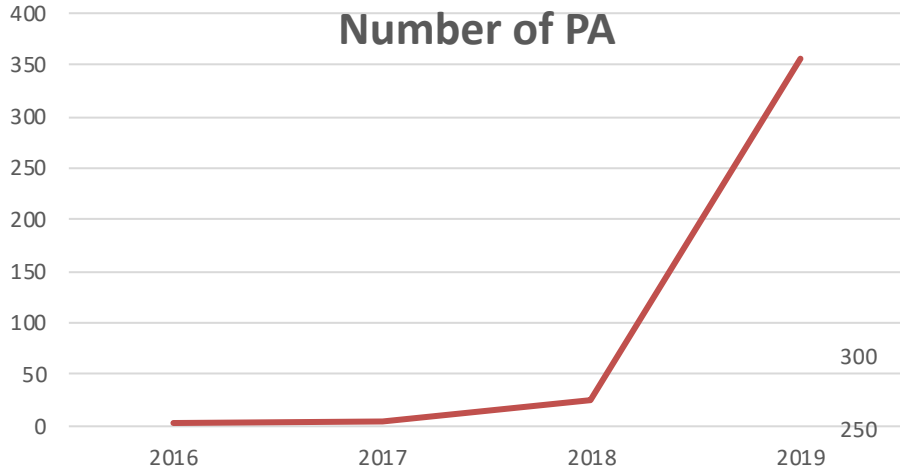
Type of PA involved
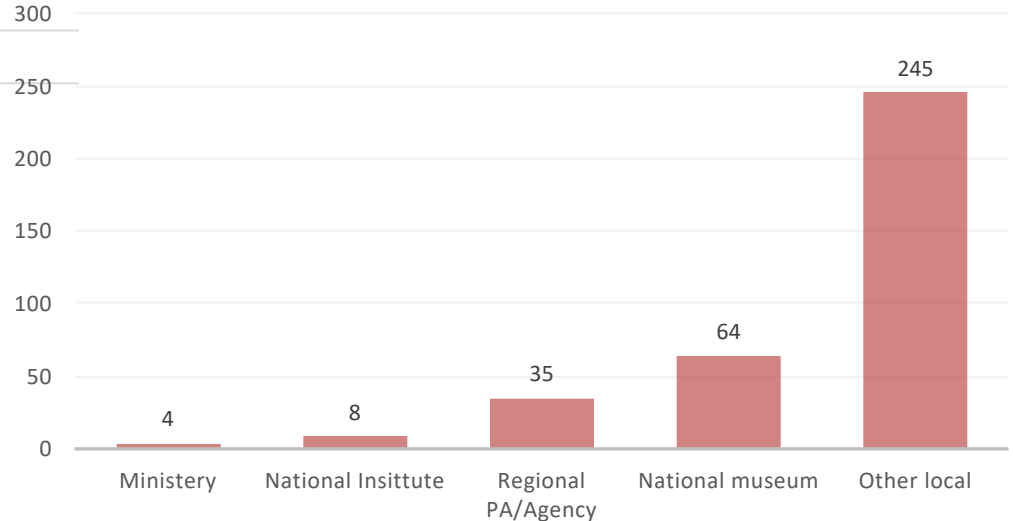
Some examples:

MIBAC - Cultural heritage Ministry

ISTAT - Statistical Institute

ACI- Italian automobile club

ANIA – Italian National Insurance Assoc.

Geographic coverage of Soil consumption indicators in Italy

Format	Weight
	262 MB
	232MB
	445MB

LOD TREND IN EU

Figure 2: Open Data Maturity clustering - EU28, 2018
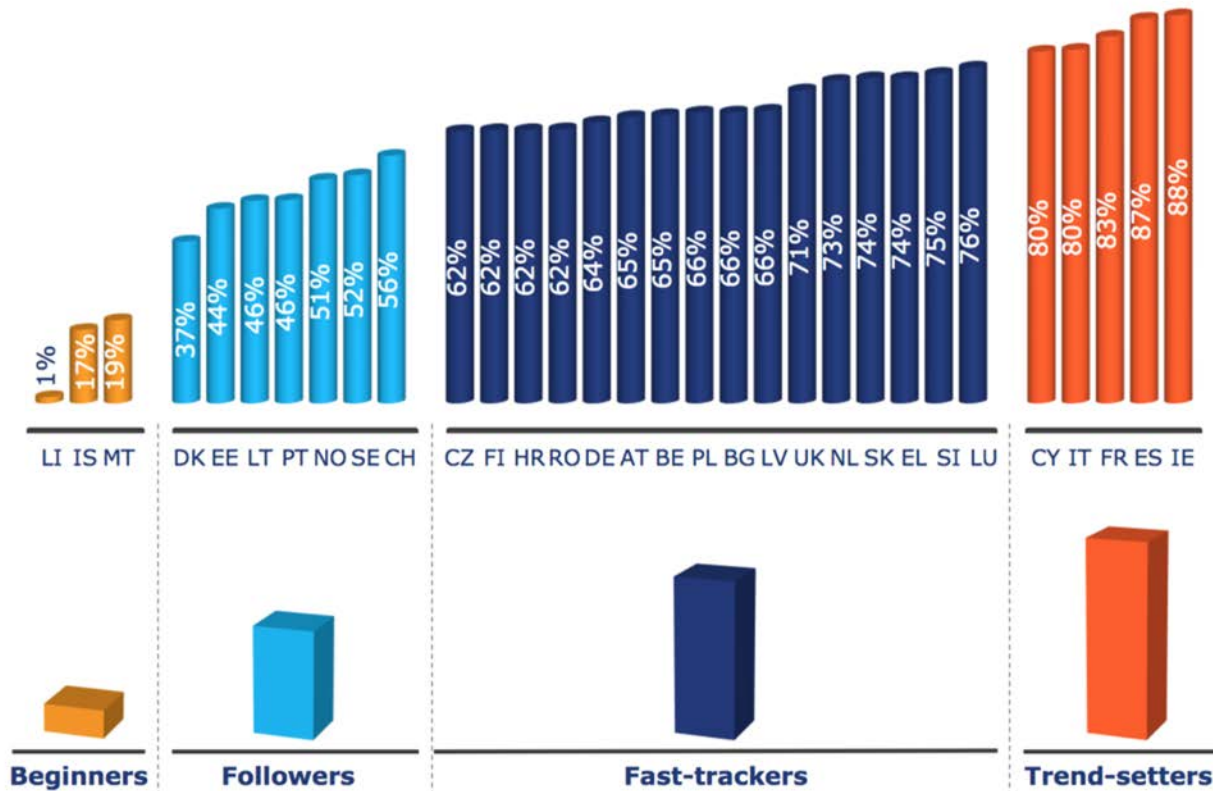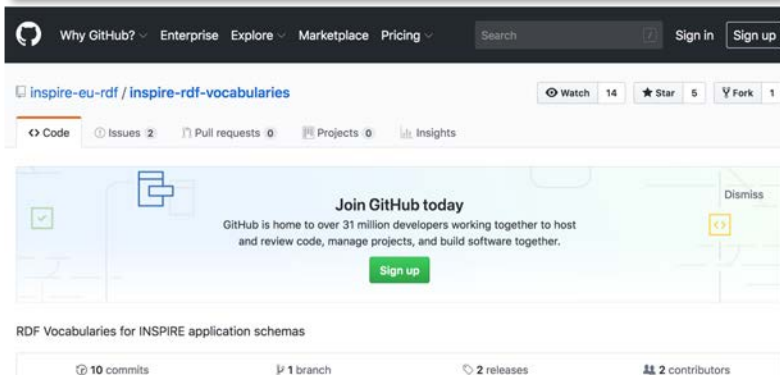
Guidelines for the RDF encoding of spatial data

- A lot of countries have some PiD rules or initiative in place;
- We need an official repository for OWL ontology in order to enforce the role of INSPIRE in data harmonisation;

- Do we need to have a follow-up on alternative encoding?

If not! The Linked Data domains will go in other way and ontology definition can follow different approach and data models with a possible proliferation.
If yes! > we will take an action.

Questions…