

ISPRA LOD AND MARINE MONITORING NETWORK

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ISPRA - Italian Institute for Environmental Protection and Research

Virtuoso SPARQL Query Editor

Default Data Set Name (Graph IRI)

Query Text

```
select distinct ?tree ?scientificname ?rightsdesc ?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/Cl>;
  <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:

Execution timeout: 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	rightsdesc	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



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

Ancona Buoy (Environmental Monitoring Facility)

<http://dati.isprambiente.it/ld/ron/ancona>

ENTITÀ DI TIPO: EnvironmentalMonitoringFacility

dcterms:description

Buoy near Ancona (Italy)



inspire-ef:AbstractMonitoringObject.geometry

13.710,43.832

<gmlLiteral>

inspire-ef:EnvironmentalMonitoringFacility.mobile

false

xsd:boolean

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.broadner	<http://dati.isprambiente.it/Id/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>	

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

<gml:Literal>

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.broadner	<http://dati.isprambiente.it/Id/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>	



inspire-ef:EnvironmentalMonitoringFacility.mobile

inspire-ef:AbstractMonitoringObject.name

rdfs:label

inspire-ef:AbstractMonitoringObject.mediaMonitored

inspire-ef:EnvironmentalMonitoringFacility.measurementRegime

inspire-ef:EnvironmentalMonitoringFacility.resultAcquisitionSource

inspire-ef:AbstractMonitoringObject.broadier

inspire-ef:AbstractMonitoringObject.responsibleParty

inspire-ef:EnvironmentalMonitoringFacility.specialisedEMFType

rdf:type


foaf:depiction



false

xsd:boolean

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INSPIRE Registry






European Commission > INSPIRE > INSPIRE registry > INSPIRE code list register > Media > water

water

[Help us improving the Re3gistry software!](#) Please fill our quick survey at <http://europa.eu/!Bn84Ct>

ID:	http://inspire.ec.europa.eu/codelist/MediaValue/water
This version:	http://inspire.ec.europa.eu/codelist/MediaValue/water:1
Latest version:	http://inspire.ec.europa.eu/codelist/MediaValue/water
Label:	water
Definition:	water
Governance level:	eu-technical
Status:	Valid
Themes:	Environmental monitoring facilities
Application schema:	Environmental Monitoring Facilities
Code list:	Media

Other formats:

 XML Re3gistry	 XML ISO 19135	 RDF/XML	 JSON	 Atom
---	---	--	---	---

<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.observedPropertyType di <http://dati.isprambiente.it/ld/ron/ancona/wave.201312/>
Observing capability for wave data (Observing Capability)

è inspire-ef:OM_Observation.observedPropertyType di <http://dati.isprambiente.it/ld/ron/ancona/wave.201312/obsprop>
Wave Observation in 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>

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

Observations

Overview and examples

Specification

sosa:ObservableProperty

sosa:Observation

sosa:observedProperty

sosa:phenomenonTime

sosa:Sensor

sosa:observes

sosa:isObservedBy

sosa:madeObservation

sosa:madeBySensor

ssn:Stimulus

ssn:isProxyFor

ssn:wasOriginatedBy

ssn:detects

Actuations

Overview and examples

Specification

sosa:ActuatableProperty

sosa:Actuation

sosa:actsOnProperty

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](#)

[\[Back to module overview and examples\]](#)[\[Back to top\]](#)

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)

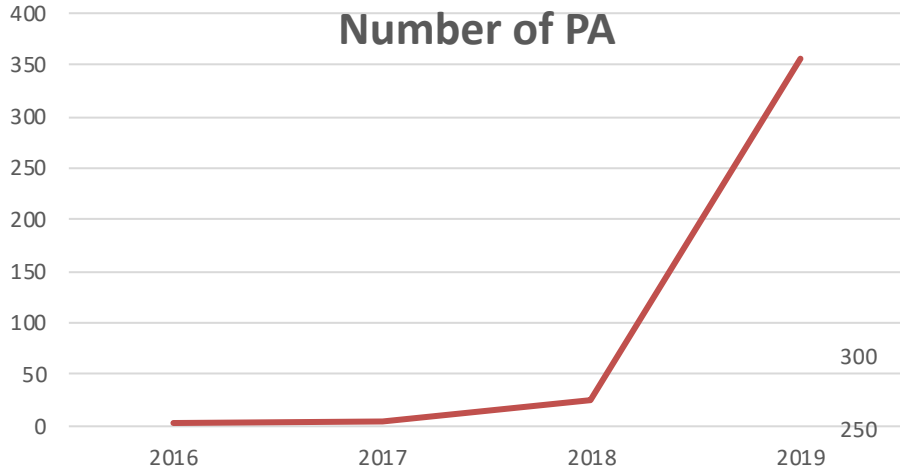
dcat:downloadURL  <http://dati.isprambiente.it/ron/ancona/wave.201312.csv>

<http://www.w3.org/ns/csvw#tableSchema> <http://dati.isprambiente.it/ld/schema/wave>

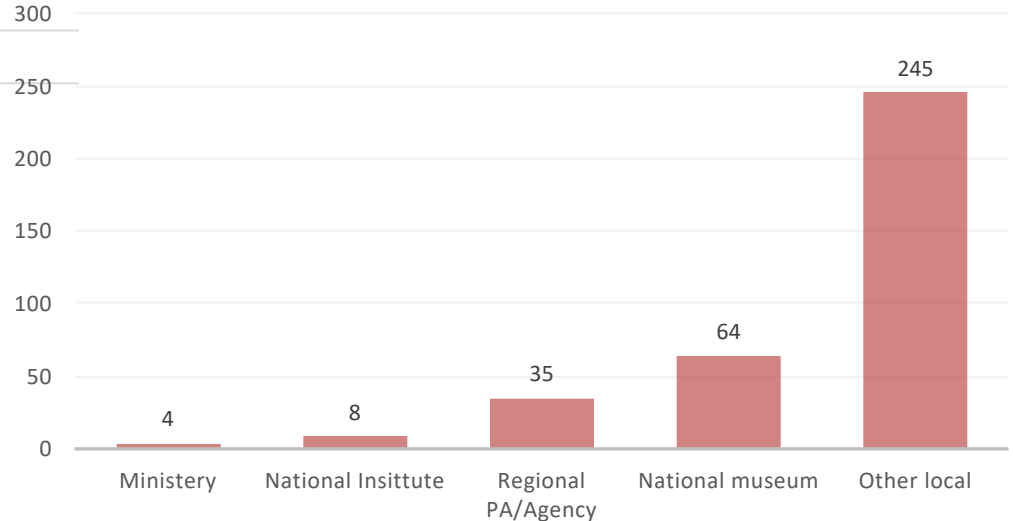
UTC	Hm0	Dir	Tm	Tp
01/12/13 00:00	1.82	34.4	4.5	6.1
01/12/13 00:30	1.88	27.3	4.4	4.8
01/12/13 01:00	1.99	36.8	4.6	6.1
01/12/13 01:30	1.85	32.2	4.5	5.7
01/12/13 02:00	1.94	33.8	4.5	5.9
01/12/13 02:30	1.95	26.1	4.6	5.9
01/12/13 03:00	1.93	27.2	4.8	6.1
01/12/13 03:30	2	30.6	4.8	6.3
01/12/13 04:00	1.94	25	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

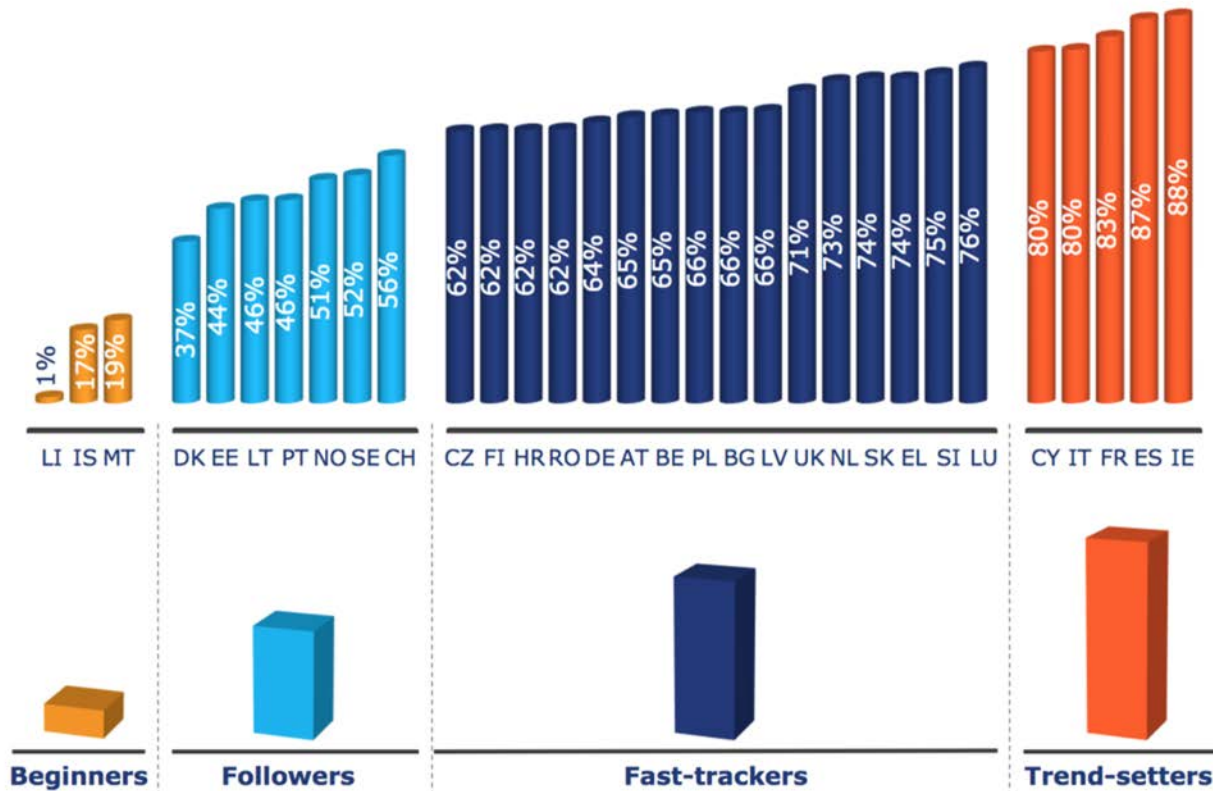
ANIA – Italian National Insurance Assoc.

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



SOME REMARKS



INSPIRE
Infrastructure for Spatial Information in Europe

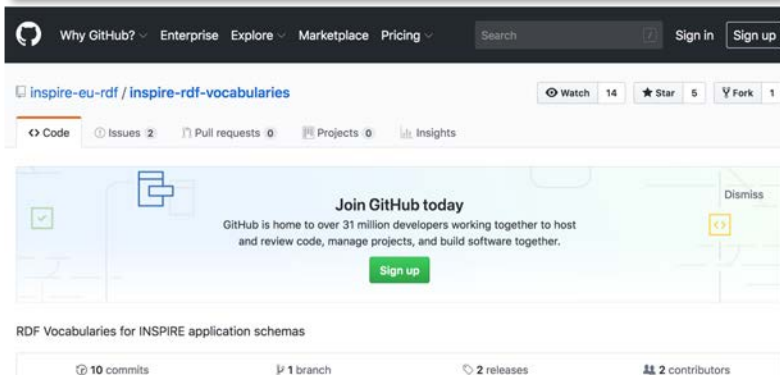
Guidelines for the RDF encoding of spatial data

Title	Guidelines for the RDF encoding of spatial data
Status	Draft

- 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.



inspire-eu-rdf / inspire-rdf-vocabularies

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RDF Vocabularies for INSPIRE application schemas

10 commits 1 branch 2 releases 2 contributors

спасибо
danke 謝謝
ngiyabonga
teşekkür ederim
dank je
gracias
tapadh leat
bedankt
hvala
mauruuru
dziekuję
thank you
mochchakkeram
go raibh maith agat
obrigado
sagolun
sukriya
kop khun krap
arigato
lakk
dakujem
merci
terima kasih
감사합니다
ευχαριστώ

Questions...

