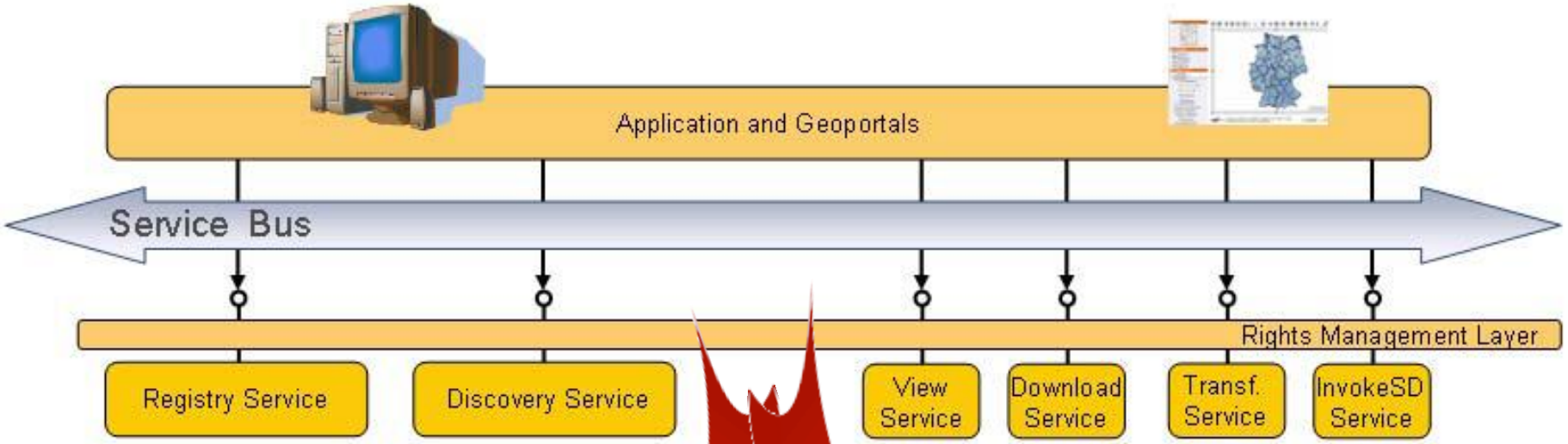
ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale

SERVIZIO GEOLOGICO D'ITALIA
Organo Cartografico dello Stato (legge N°68 del 2-2-1960)

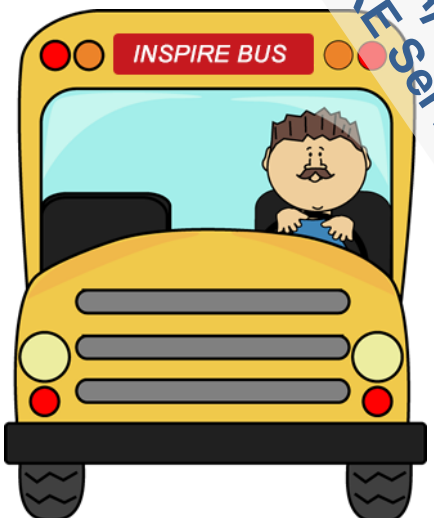
Are Smart Applications driver or passenger of the INSPIRE Directive?

Carlo Cipolloni

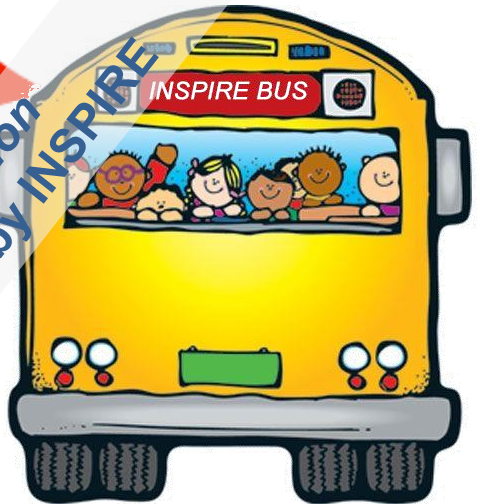
ISPRA – Italian INSPIRE MIG-T



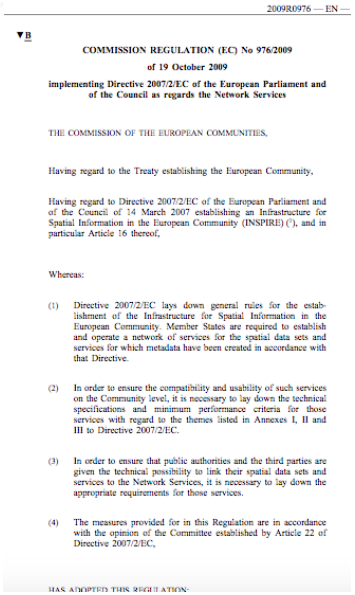
[Smart Application supports the INSPIRE Service implementation]



[Smart Application transported by INSPIRE Service]



INSPIRE is a legislation and set of mandatory rules that each Member State must apply



2009R0976 — EN —

▼B

COMMISSION REGULATION (EC) No 976/2009

of 19 October 2009

implementing Directive 2007/2/EC of the European Parliament and of the Council as regards the Network Services

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to 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) (1), and in particular Article 16 thereof,

Whereas:

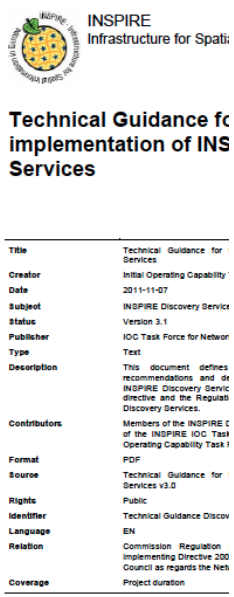
(1) Directive 2007/2/EC lays down general rules for the establishment of the Infrastructure for Spatial Information in the European Community. Member States are required to establish and operate a network of services for the spatial data sets and services for which metadata have been created in accordance with that Directive.

(2) In order to ensure the compatibility and usability of such services on the Community level, it is necessary to lay down the technical specifications and minimum performance criteria for those services with regard to the themes listed in Annexes I, II and III to Directive 2007/2/EC.

(3) In order to ensure that public authorities and the third parties are given the technical possibility to link their spatial data sets and services to the Network Services, it is necessary to lay down the appropriate requirements for those services.

(4) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 22 of Directive 2007/2/EC,

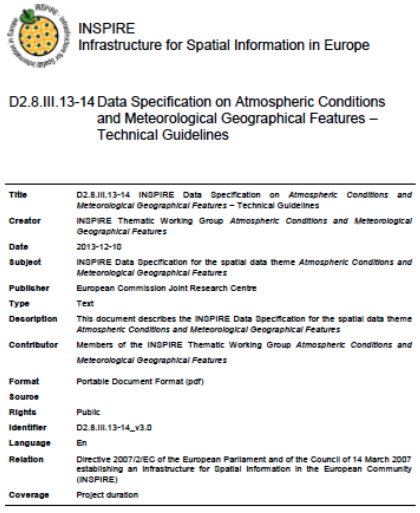
HAS ADOPTED THIS REGULATION:



INSPIRE
Infrastructure for Spati

Technical Guidance fo implementation of INS Services

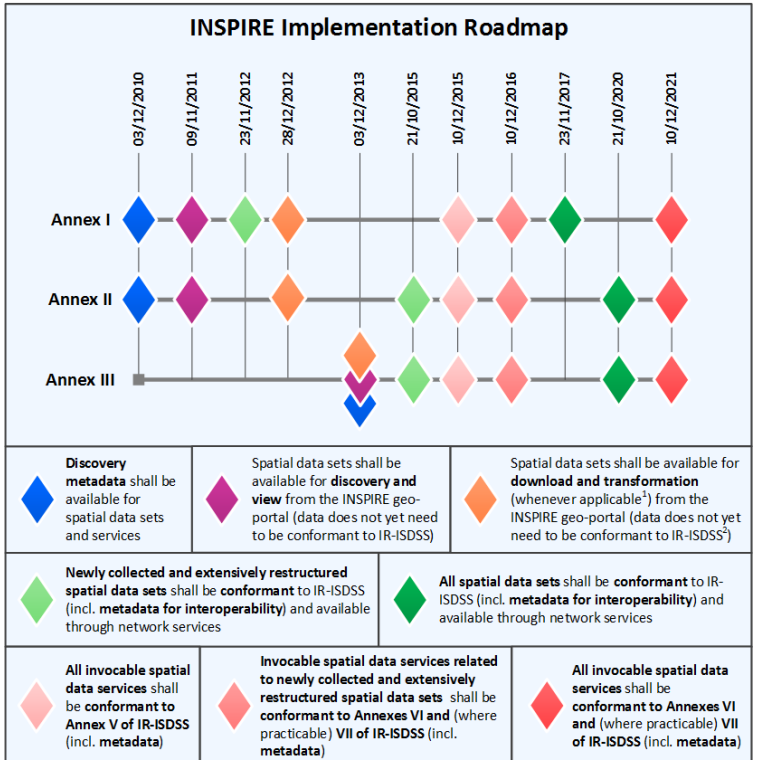
Title	Technical Guidance for Services
Creator	Initial Operating Capability
Date	2011-11-07
Subject	INSPIRE Discovery Servic
Status	Version 3.1
Publisher	IOC Task Force for Networ
Type	Text
Description	This document defines recommendations and de INSPIRE Discovery Servic directive and the Regulati Discovery Services.
Contributors	Members of the INSPIRE C of the INSPIRE IOC Task Operating Capability Task F
Format	PDF
Source	Technical Guidance for Services v3.0
Rights	Public
Identifier	Technical Guidance Discov
Language	EN
Relation	Commission Regulation implementing Directive 200 Council as regards the Net
Coverage	Project duration



INSPIRE
Infrastructure for Spatial Information in Europe

D2.8.III.13-14 Data Specification on Atmospheric Conditions and Meteorological Geographical Features – Technical Guidelines

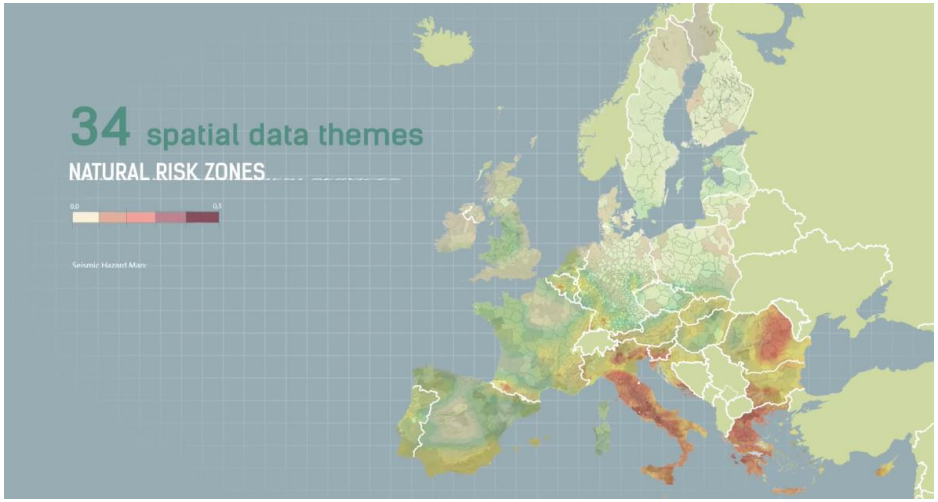
Title	D2.8.III.13-14 INSPIRE Data Specification on *Atmospheric Conditions and Meteorological Geographical Features* – Technical Guidelines
Creator	INSPIRE Thematic Working Group *Atmospheric Conditions and Meteorological Geographical Features*
Date	2013-12-10
Subject	INSPIRE Data Specification for the spatial data theme *Atmospheric Conditions and Meteorological Geographical Features*
Publisher	European Commission Joint Research Centre
Type	Text
Description	This document describes the INSPIRE Data Specification for the spatial data theme *Atmospheric Conditions and Meteorological Geographical Features*
Contributor	Members of the INSPIRE Thematic Working Group *Atmospheric Conditions and Meteorological Geographical Features*
Format	Portable Document Format (pdf)
Source	
Rights	Public
Identifier	D2.8.III.13-14_v3.0
Language	En
Relation	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)
Coverage	Project duration



Deadline and/or milestones to respect and follow

But we need to consider INSPIRE as service tool that can help the Public Administration to produce better decision and policy

INSPIRE can help Europe to make sustainability decision and policy



Citizen want

- smart application to use data
- Easy access to the data
- Understanding data

[They need of INSPIRE]

Open Geo Data paradigma

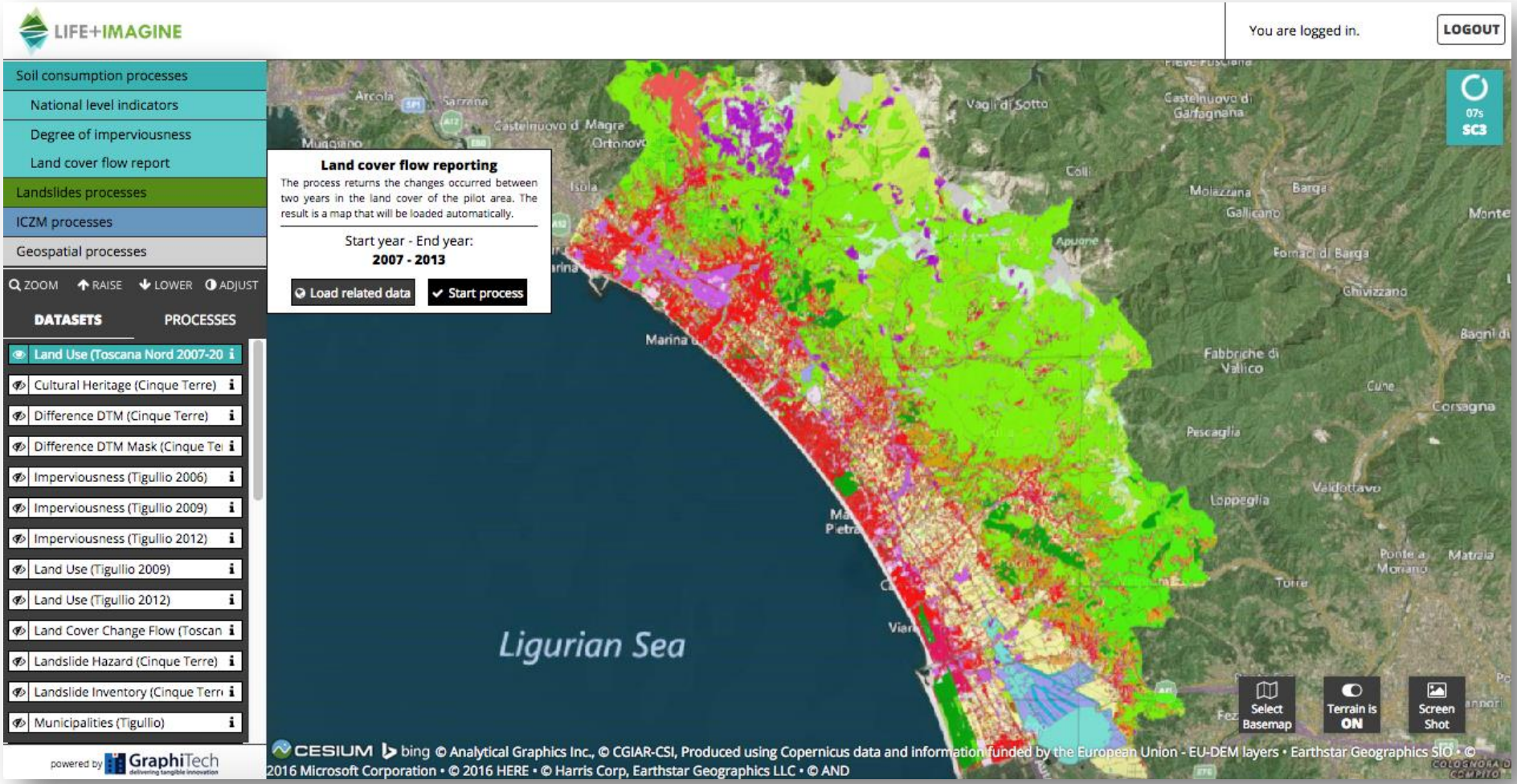
What Smart Application developer think about INSPIRE?

- To complex to apply and understand
- A lot of rules to improve and explain
- WFS services are not faster and manageable
- Some information haven't solution to expose and exploit data contents
- Great part of local Public Administration haven't started to apply due to lack of resources

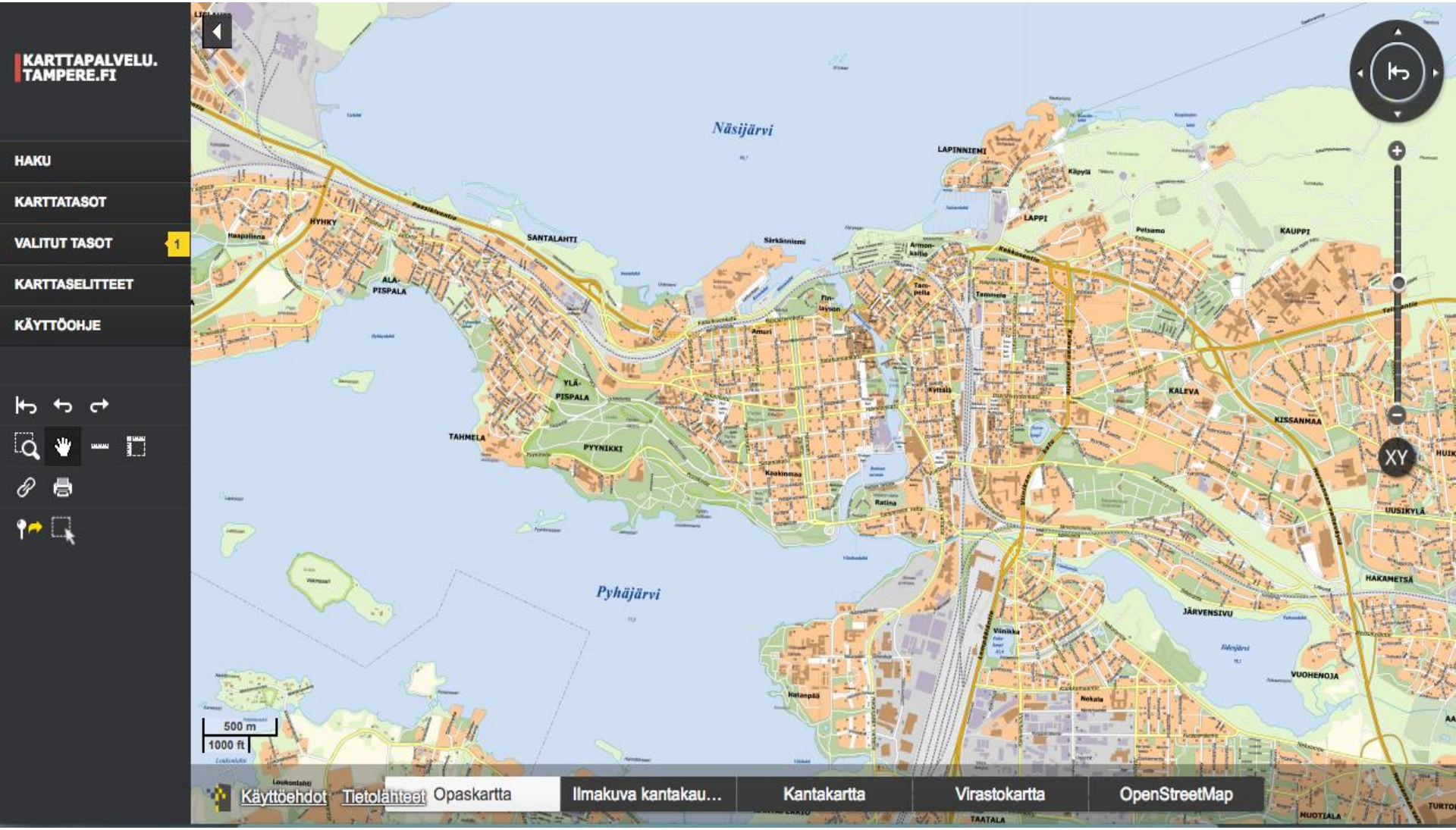
What Mrs. INSPIRE can offer to the Smart Application?

- A Legal framework with common practices
- Common data models and vocabularies to share information
- Services and data can validate using a common structure
- Technical Guideline to use data and a discussion forum (*Thematic Cluster portal*)

In this case a common process can be applied in different geographic contest or in different time windows thanks to a new INSPIRE layers.

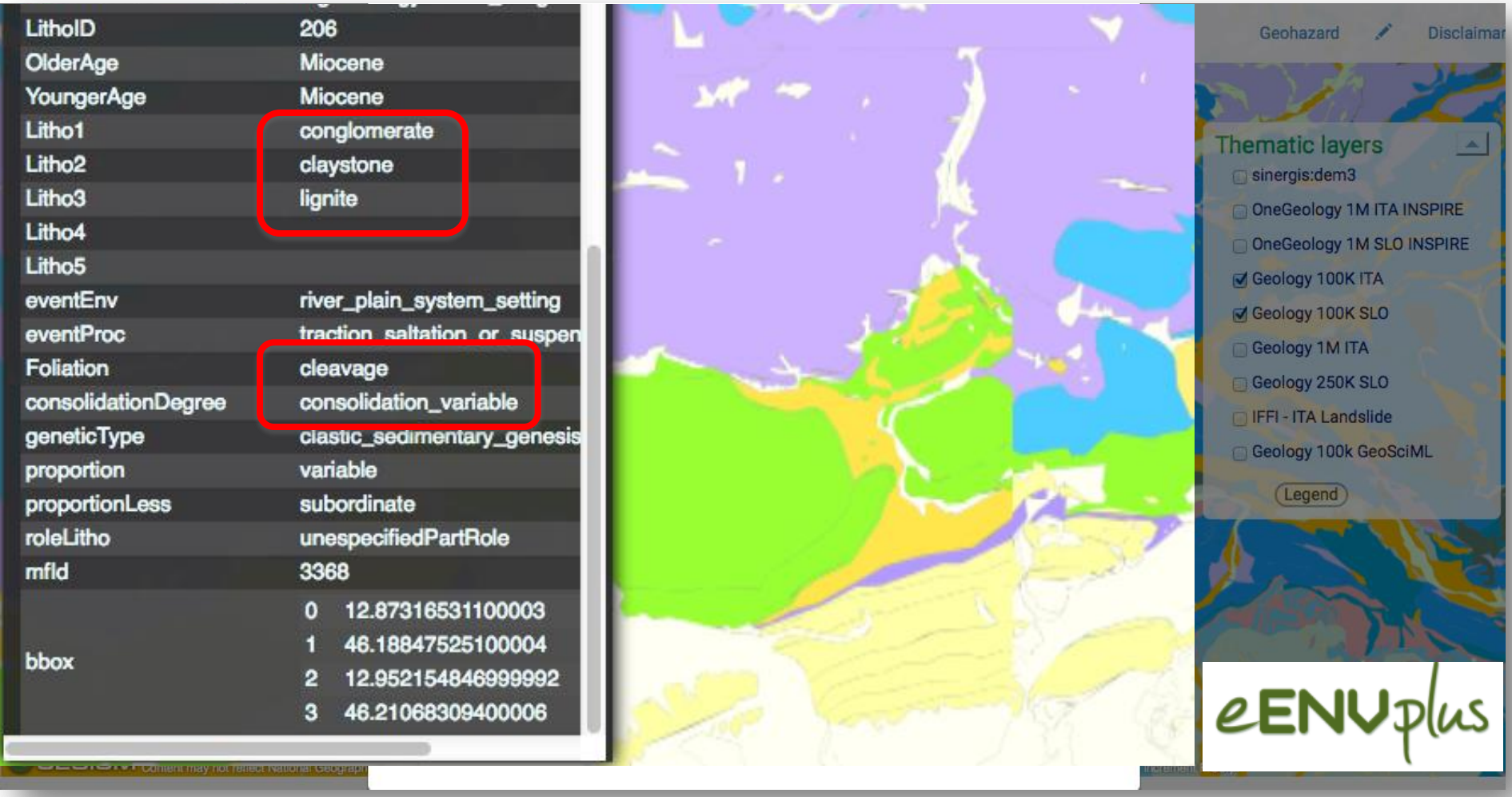


In Oskari project the Topographic map of Tempere city are based on INSPIRE data base

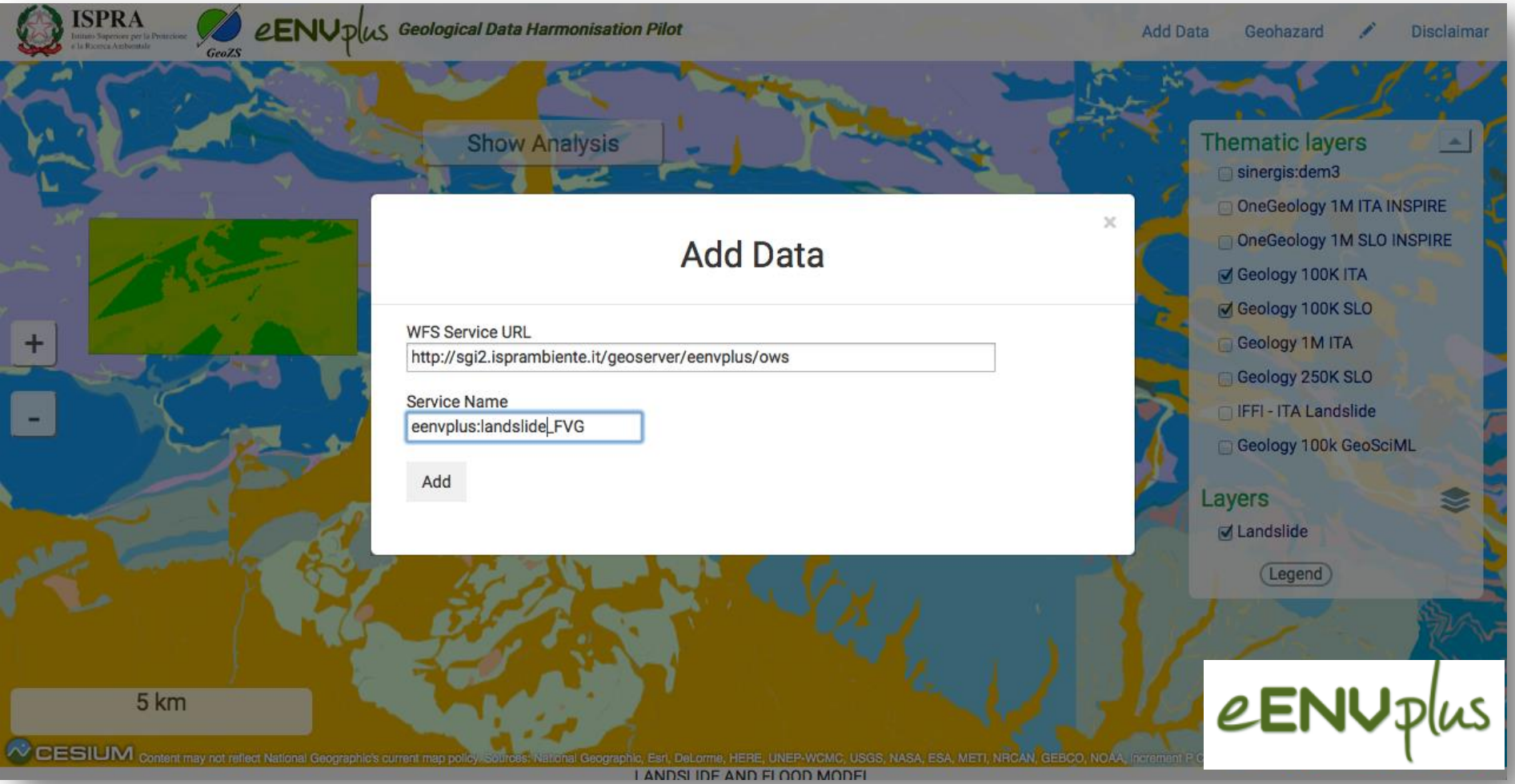


INSPIRE Drives

In this case a common harmonised geological information allow the user to analyse the geological coverage and improve or modified the quality of susceptibility classes.



… but also allow to compare data



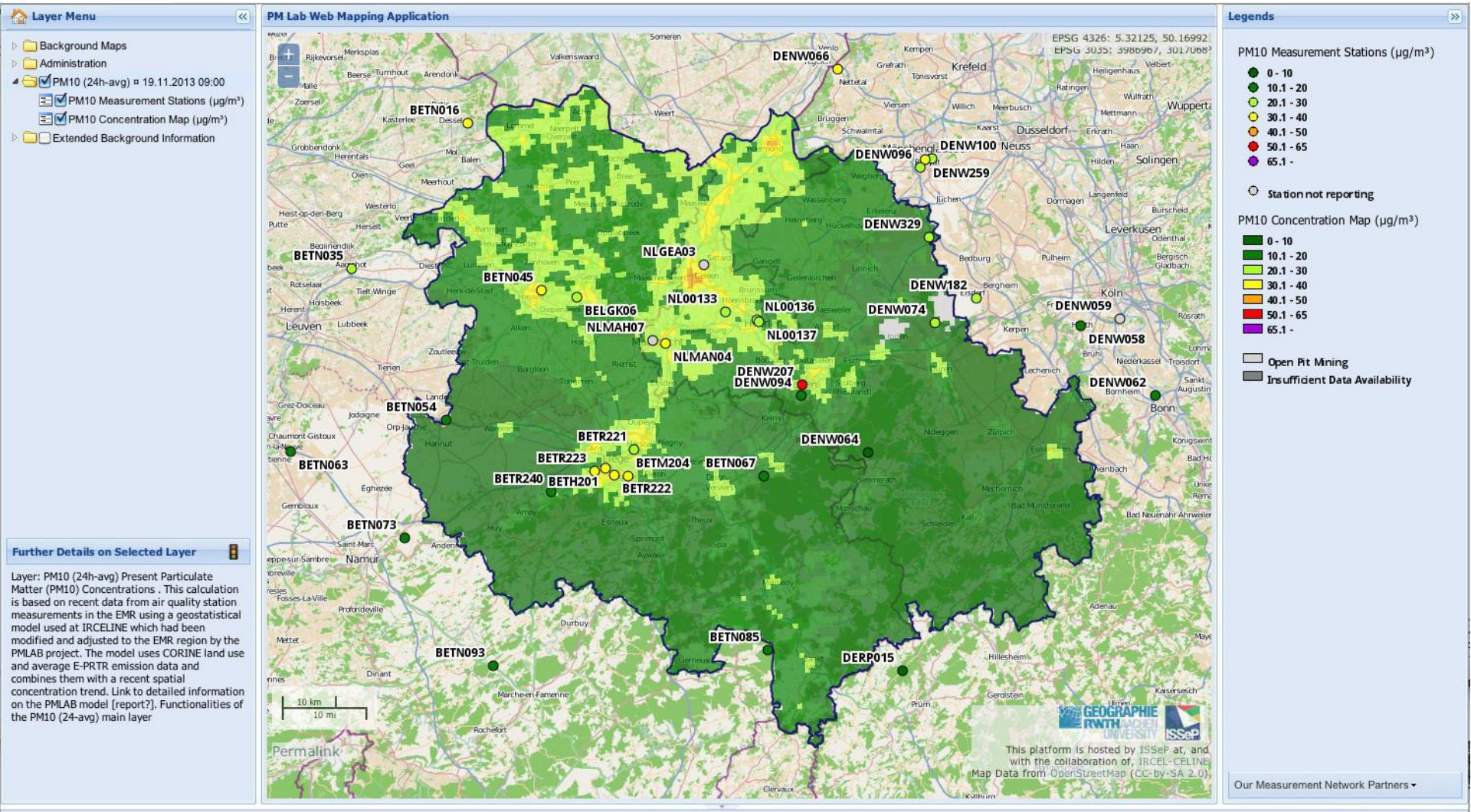
ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale

SERVIZIO GEOLOGICO D'ITALIA
Organo Cartografico dello Stato (legge N°68 del 2-2-1960)

INSPIRE · Infrastructure for Spatial Information in Europe

INSPIRE Drives

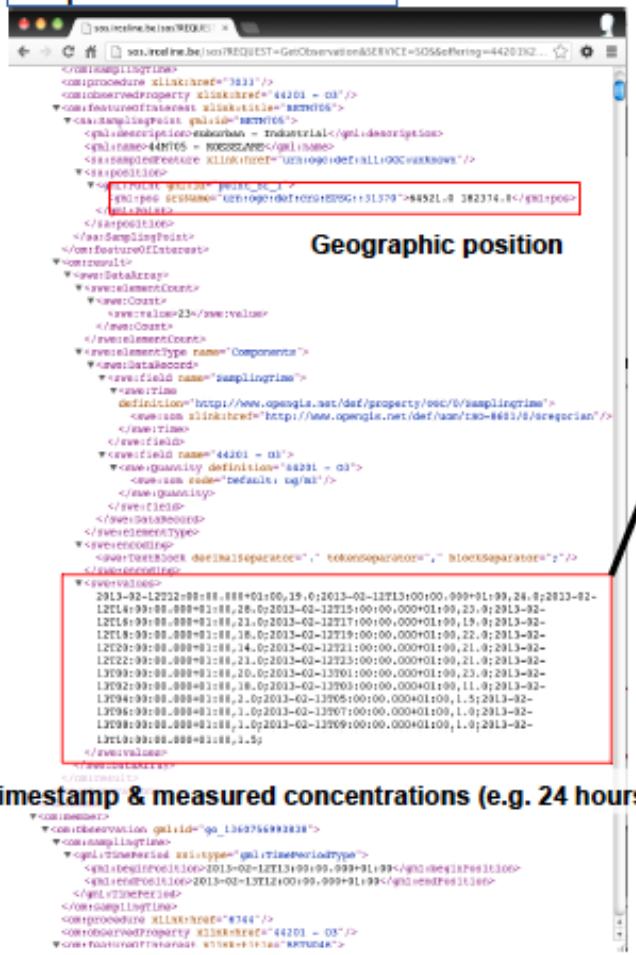
Using SOS developed in eENVplus project to provide a map in PMLab projects application.



Sensor observation services (SOS)

… on the verge of becoming an official INSPIRE downloading service

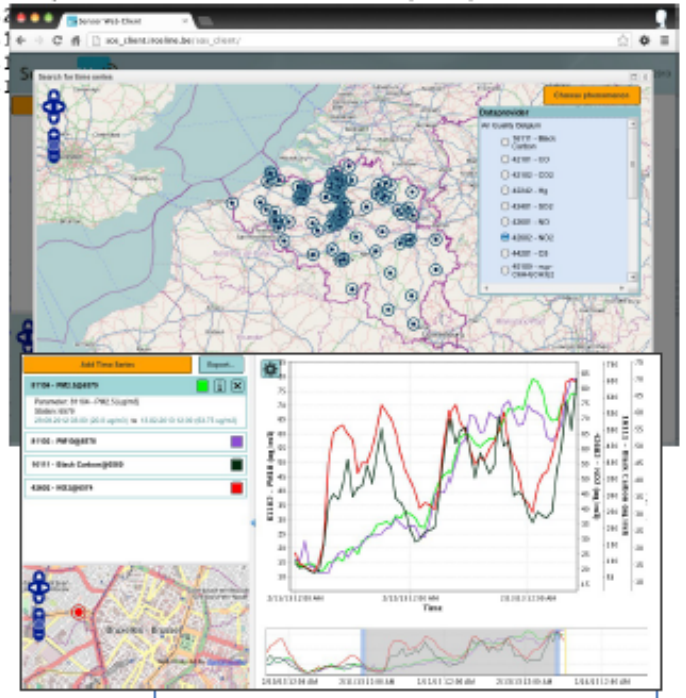
http://sos.irceline.be



- Efficient transmission of time series

```
<swe:encoding>
  <swe:TextBlock decimalSeparator="." tokenSeparator="," blockSeparator=";"/>
</swe:encoding>
<swe:values>
  2013-02-12T12:00:00.000+01:00,19.0;2013-02-12T13:00:00.000+01:00,24.0;2013-02-
  12T14:00:00.000+01:00,28.0;2013-02-12T15:00:00.000+01:00,23.0;2013-02-
  12T16:00:00.000+01:00,21.0;2013-02-12T17:00:00.000+01:00,19.0;2013-02-
  12T18:00:00.000+01:00,18.0;2013-02-12T19:00:00.000+01:00,22.0;2013-02-
  12T20:00:00.000+01:00,14.0;2013-02-12T21:00:00.000+01:00,21.0;2013-02-
  12T22:00:00.000+01:00,21.0;2013-02-12T23:00:00.000+01:00,21.0;2013-02-
  13T00:00:00.000+01:00,20.0;2013-02-13T01:00:00.000+01:00,23.0;2013-02-
  13T02:00:00.000+01:00,18.0;2013-02-13T03:00:00.000+01:00,11.0;2013-02-
  13T04:00:00.000+01:00,2
  13T06:00:00.000+01:00,1
  13T08:00:00.000+01:00,
  13T10:00:00.000+01:00,
</swe:values>
```

- querriable:



http://sos_client.irceline.be

eENVplus

irCELine

ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale

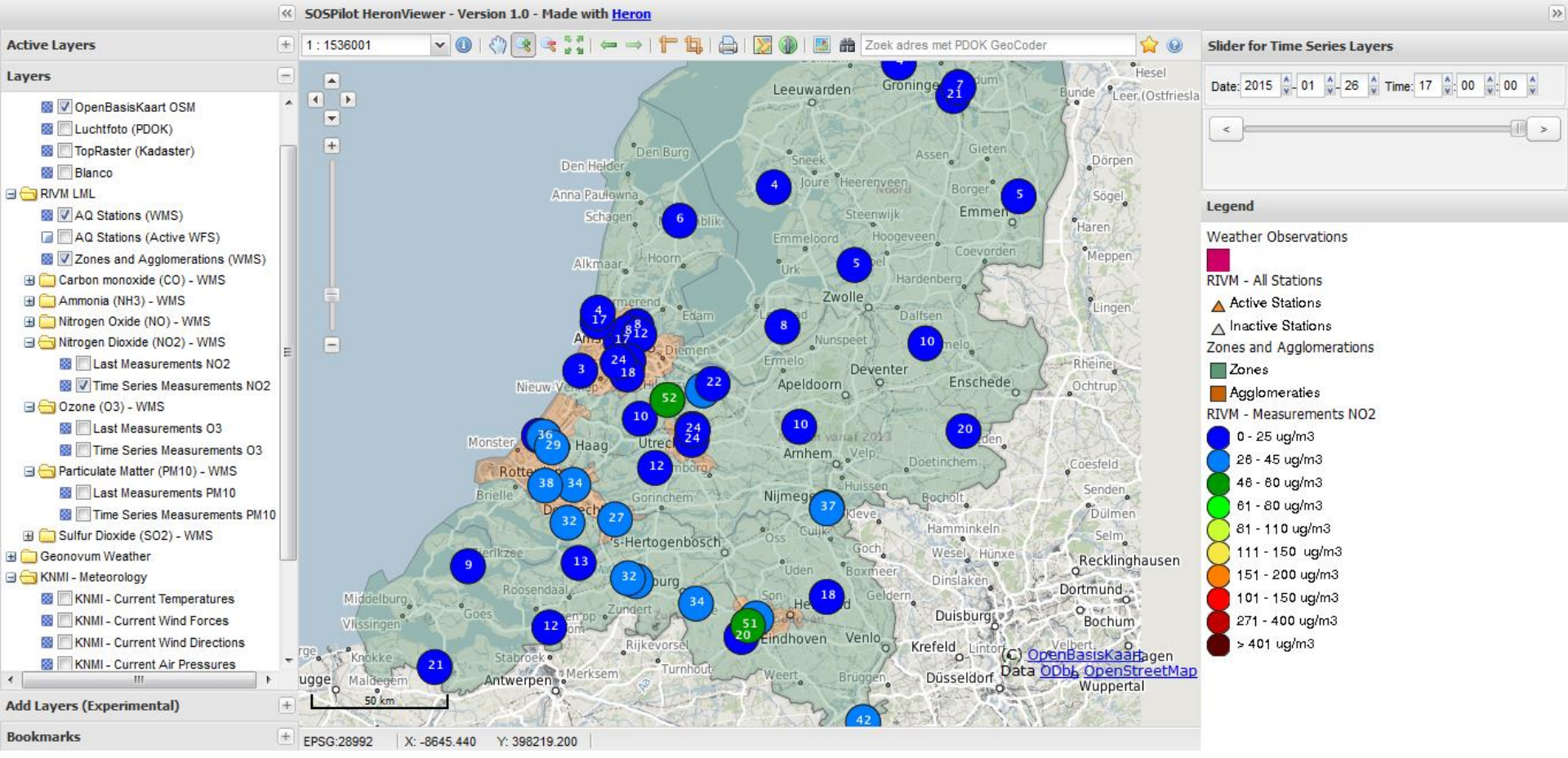
SERVIZIO GEOLOGICO D'ITALIA
Organo Cartografico dello Stato (legge N°68 del 2-2-1960)

INSPIRE Passenger

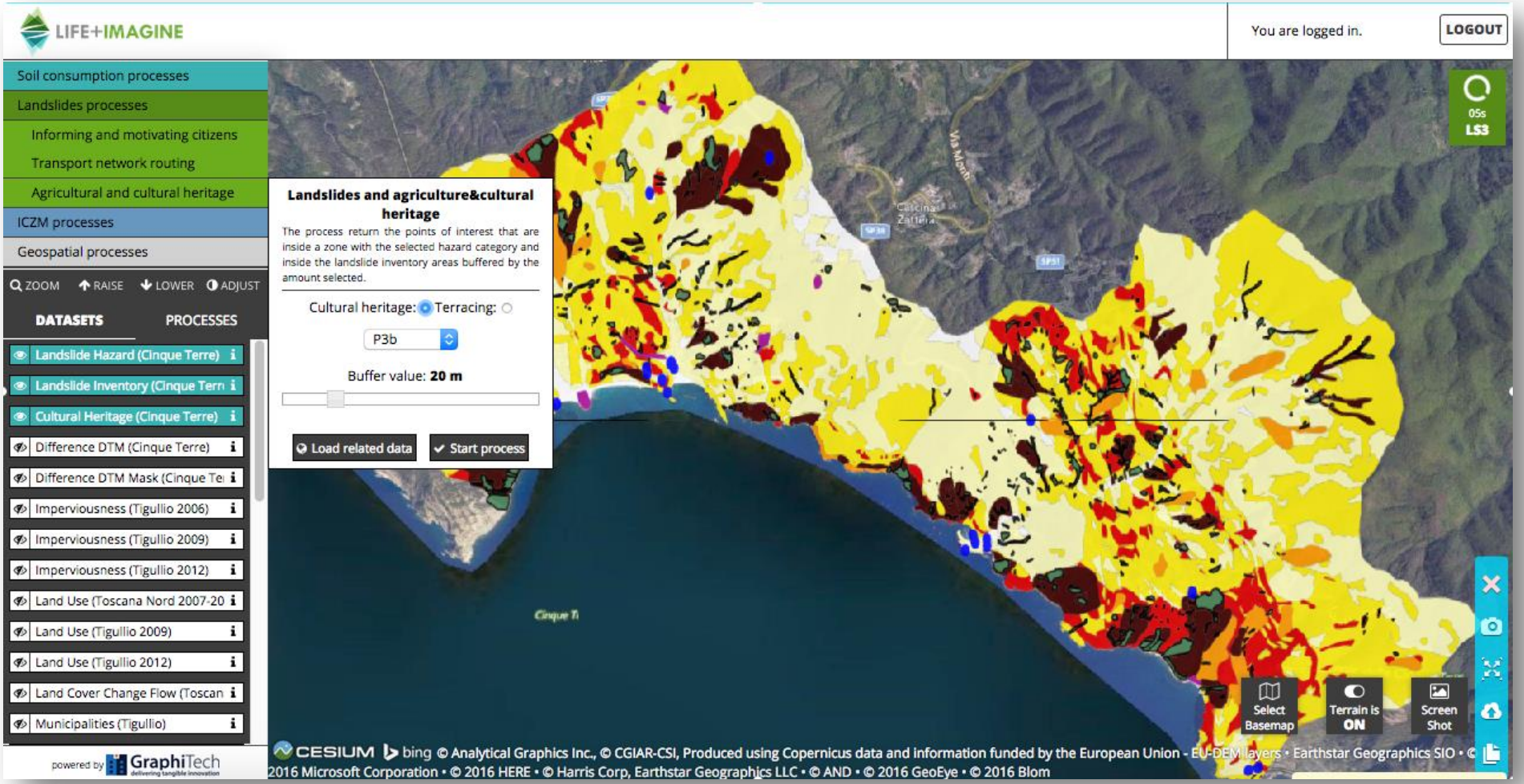
GEONOVUM

National Institute for Public Health and the Environment
Ministry of Health, Welfare and Sport

The Web Application on Air quality analysis in the Netherland are using WMS (Time) and WFS this is a input to start INSPIRE implementation.



In this case the result maps are directly transformed in INSPIRE layers and the user can download the WFS/GML in INSPIRE "conformance" data.



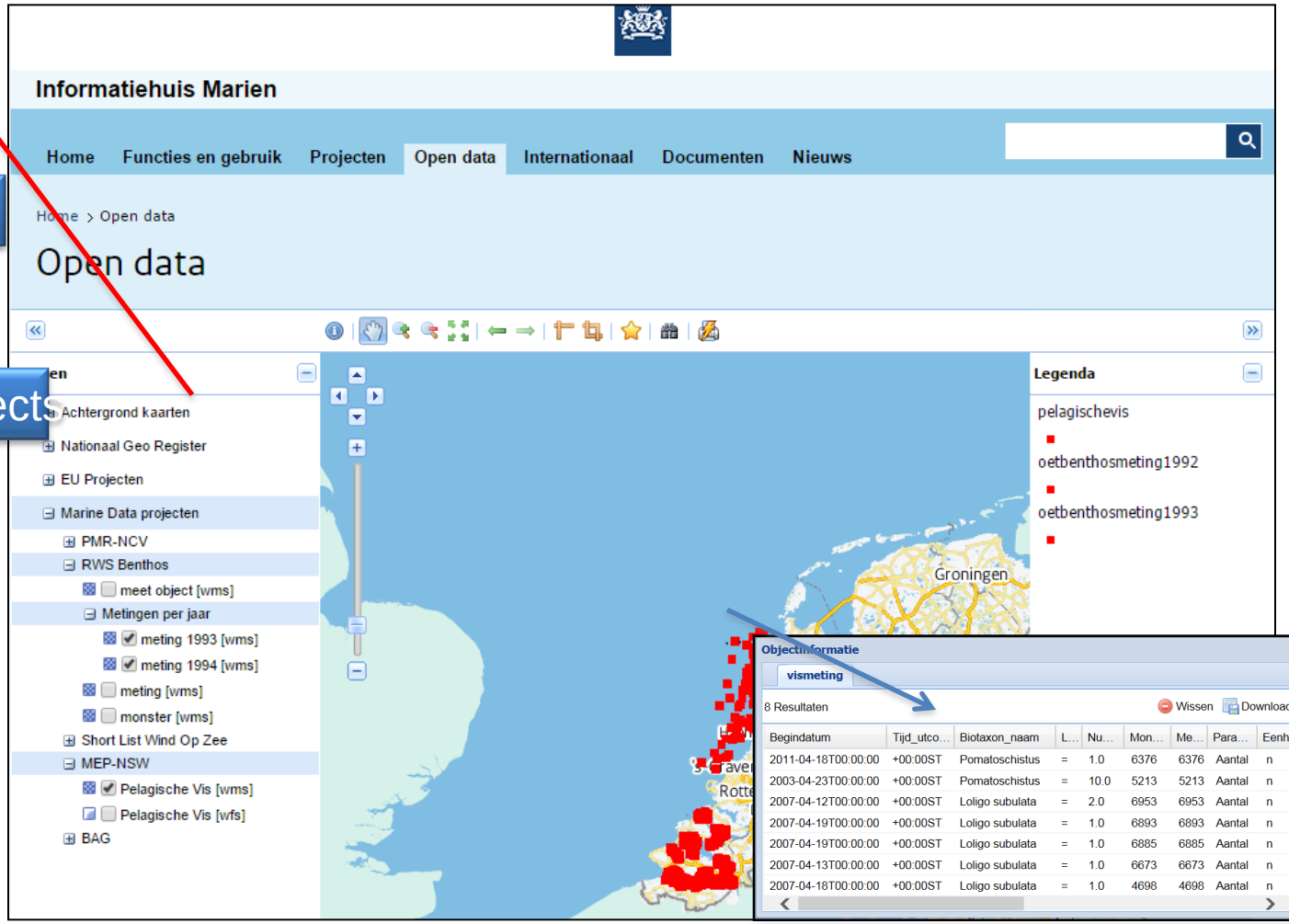
ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale
SERVIZIO GEOLOGICO D'ITALIA
Organo Cartografico dello Stato (legge N°68 del 2-2-1960)

INSPIRE Passenger

IHM (open data) Portal with WFS-services

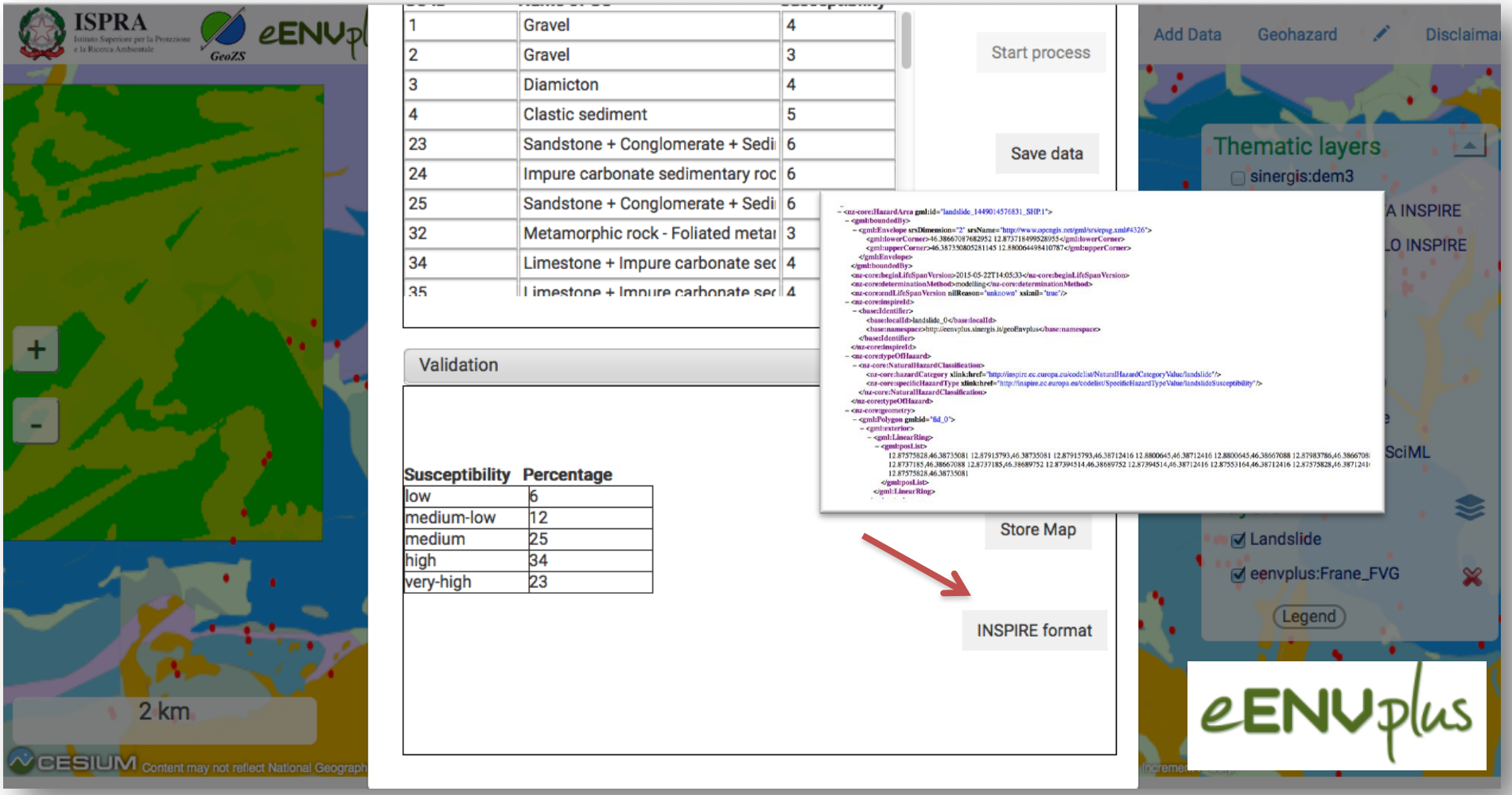
This pushes the WFD App to start the use of INSPIRE to have a common layer

- Backgrounds
- Nat Geo-Register
- Europ Projects
- Large Marine Projects
  - New Harbours
  - Sandmining
  - Windfarms
    - Benthos
    - Fish



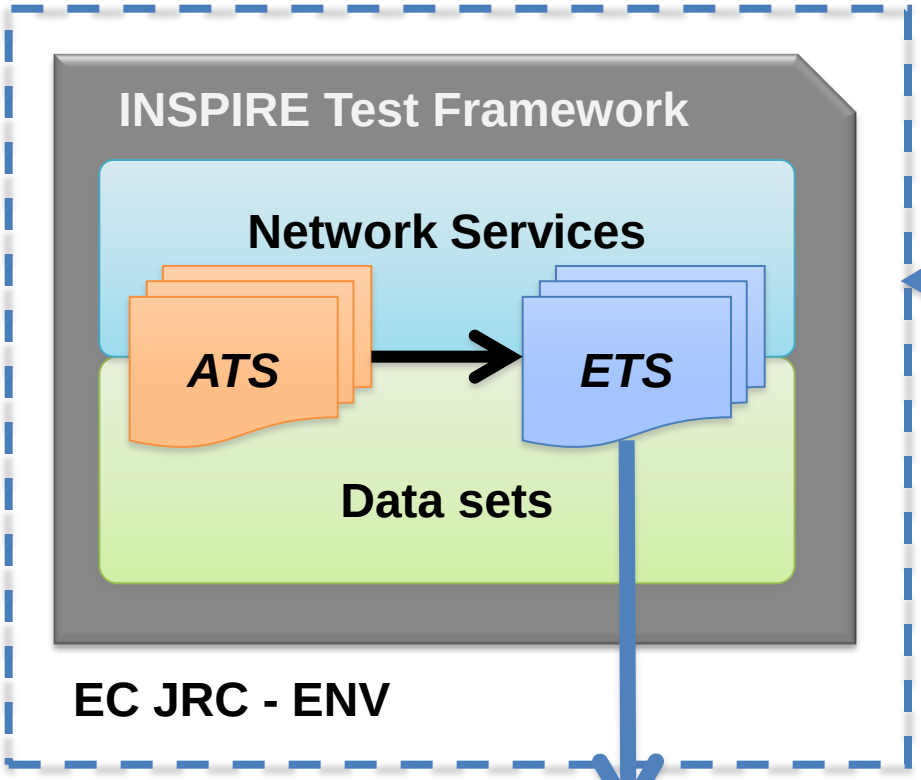
INSPIRE Passenger

The same eENVplus app in this case helps NRZ INSPIRE WFS service development; it allows to transform the final data in INSPIRE for next elaboration.



ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale
SERVIZIO GEOLOGICO D'ITALIA
Organo Cartografico dello Stato (legge N°68 del 2-2-1960)

How can integrate them?

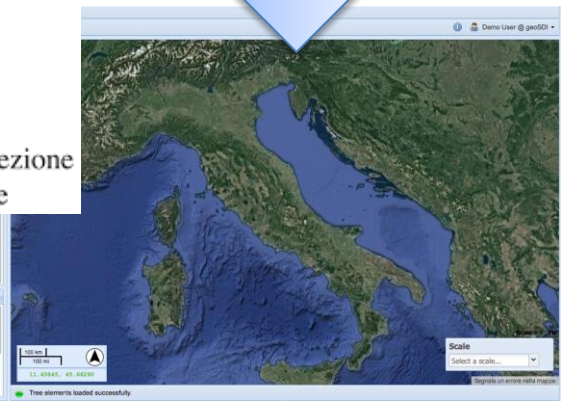


Users

Software Developer

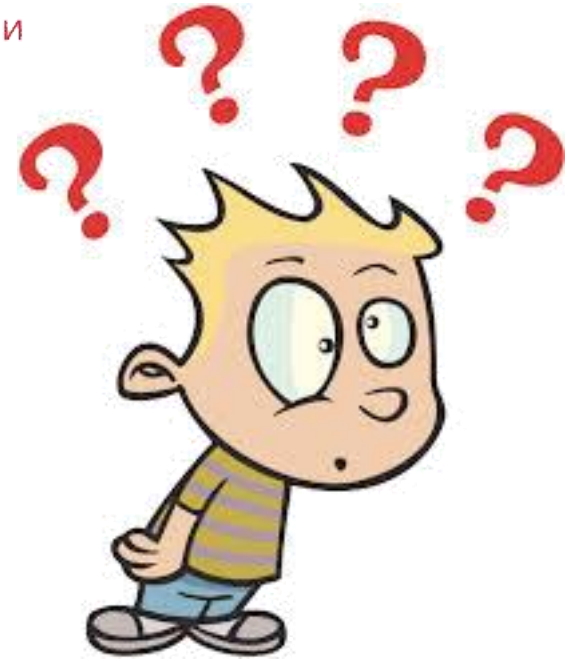
eENVplus Validation Servi

ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale



Conclusion

- Most of the smart applications at the moment need of INSPIRE TGs and rule to provide a wider sharing system;
- INSPIRE can help great part of local Public Administration to share and provide data for different purpose (Scientific, Technical work or Citizen awareness)
- INSPIRE need to learn easily path from smart application to be more flexible and easily to provide different type/format of data
- Smart application represents the most important citizen request also to demonstrate the importance of data integration.



Questions…

CC BY SA