



EGIDA Project  
**National Use Cases Workshop**  
SINAnet  
*Nico Bonora*

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## SINAnet

The Italian Environmental Information and Monitoring System is a nationwide cooperating network among the main institutions having competences on environmental data acquisition and management. The scope of SINA is:

- to provide policy makers with reliable and timely data/information on state of environment and trends;
- to ensure public access to data/information;
- and to promote integration of environmental concern into policy cycle.

ISPRA is mandated to coordinate the SINAnet and is responsible for its development and operational functionality. Created by Italian Law 133/2008, ISPRA is a public body, under the vigilance of the Ministry of the Environment, Land and Sea (MATTEM).



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## SINAnet - History

Started in **1988** by the Ministry of Environment and financed by different projects for the **environmental protection**, in the **1998** the SINA program was transferred to APAT (nowadays ISPRA).

In **2001**, the SINA developing program was proposed by the Ministry of Environment to the Conference involving Regional and National Authorities, where it was signed the agreement aimed to constitute the SINA BOARD as **institutional coordinator**.



## ...SINAnet today within INSPIRE

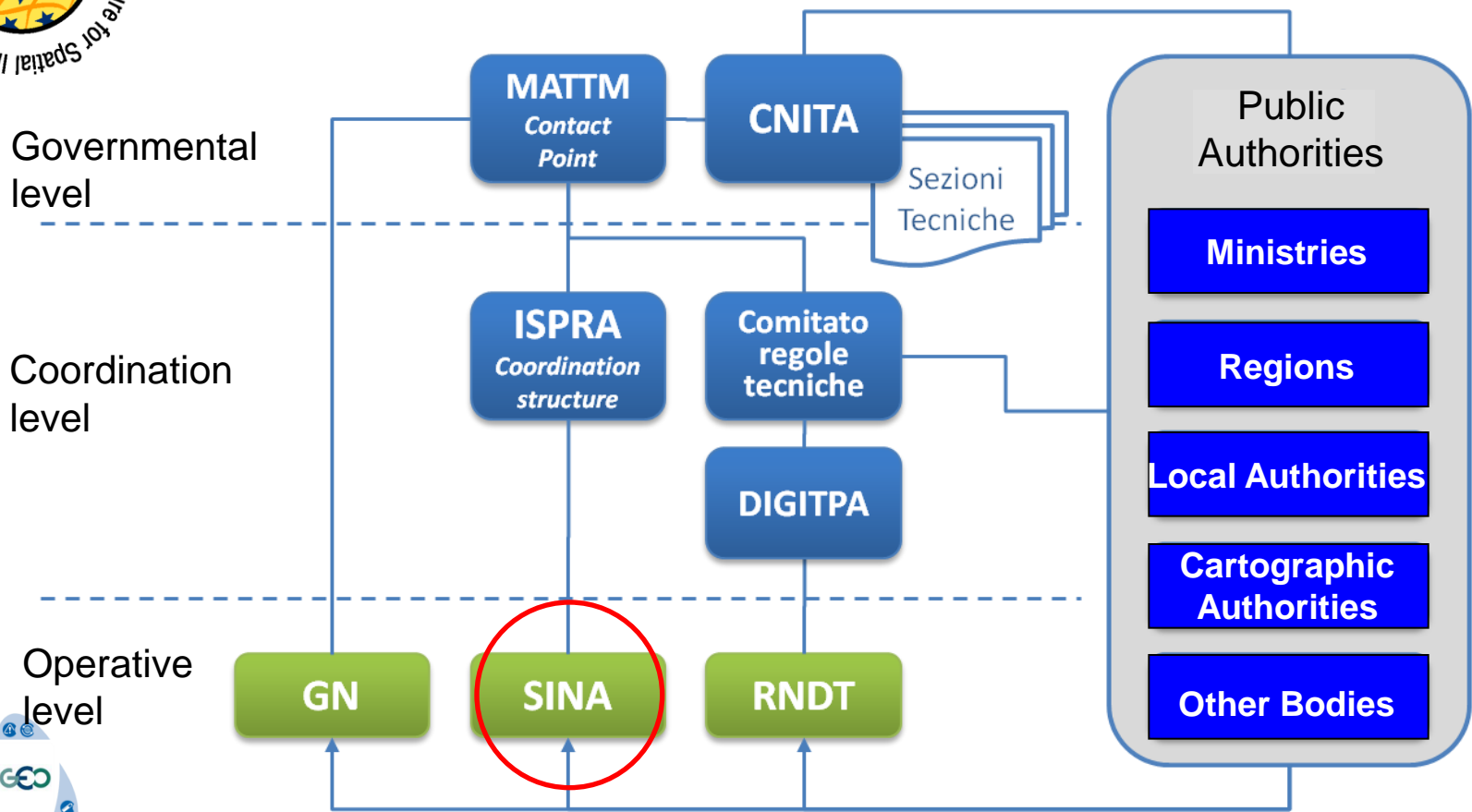
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- The Italian State brought into force the law 32/2010 to comply with the Directive 2007/2/EC (INSPIRE). The new law aims to **establish a National Infrastructure for the spatial information, environmental data and their dataflows.**
- The law gives a high relevance to the role of SINAnet **than now is mandated to gather and make interoperable the spatial information being the reference institutional environmental network**, bringing together relevant partners, infrastructure, contents products and services.
- Furthermore, **the INSPIRE network services are being implemented in SINAnet in the context of the already existing national infrastructures** of interest for the public administrations, the enterprises and the citizens such as **SPCoop, the infrastructure built to support the interoperability among the information systems of the public sector.**



# GOVERNANCE

## SINAnet in the INSPIRE implementation



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From local to European level

# The organizational model

- Regional Focal Points (PFR)
- Italian Environmental Agency System (ISPRA, ARPA/APPA)
- Main National Institution (IPR) (as Italian Statistic Institute, River Basin Authority, etc..)



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## THE ORGANISATIONAL MODEL

The SINAnet architecture is based on the decentralisation of the environmental information system among different nodes.

*This design assumption was necessary considering the administrative structure of the Country, where 20 Regions and Autonomous Provinces have their own responsibility in most of the environmental related decision-making.*

At the national level, ISPRA is responsible for collecting, elaborating, managing, evaluating and disseminating environmental data in cooperation with the Italian Regional Environmental Institutions participating in SINAnet.

*The Regional Focal Points are the main data collectors at regional level and are in charge of collecting, documenting and making available environmental data through the SINA network. Most data and information come from monitoring networks and in-situ measurements managed by the EPAs' network.*



# Integration between European and National Systems.

The architecture of the Italian system resembles the EEA/EIONET model, in order to attain the following objectives :

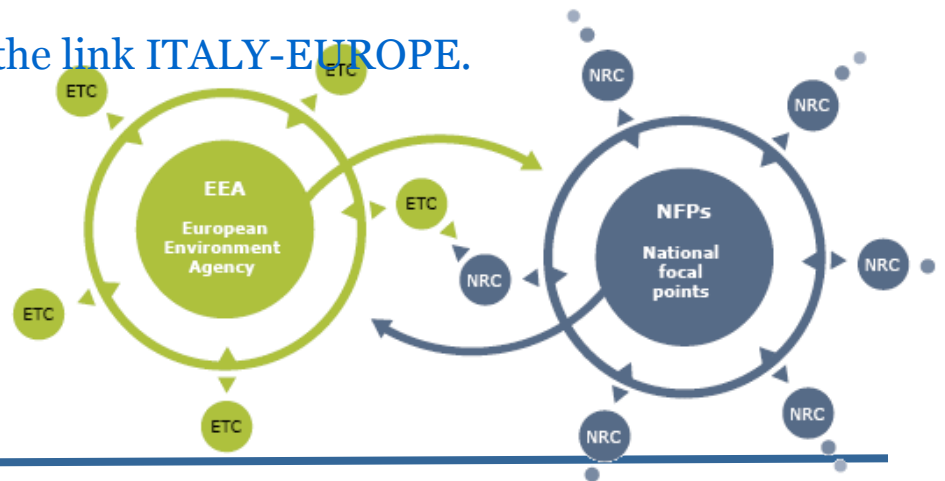
- to take advantage of experiences, organisational and technical concepts and standards developed in EIONET framework;
- to promote the Italian participation in European initiatives aiming at building an effective European environmental information system;
- to ensure a better integration between the European environmental information system and the Italian one, thus streamlining data flow between Italian and European Systems.
- This framework allows Italy, through ISPRA, to interact with other environmental information systems.
- Through EIONET, ISPRA & SINAnet ensure the link ITALY-EUROPE.

*EEA: European Environment Agency*

*ETC: European Topic Centre*

*NRC: National Reference Centre*

*NFP: National Focal Point*



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## International initiatives involving SINAnet

### EU

- Inspire Directive implementation

### EEA

- GMES
  - Corine Land Cover (1990 – 2000- 2006)
  - GMES Network of Users (GNU)
- EIONET

### GEOSS

- AIP2/3
- Data Sharing Task Force
- GCI Coordinating Team

Data provider



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## International funded projects

### EC - FP7

- EGIDA (Environment): Coordinating Earth and Environmental cross-disciplinary projects to promote GEOSS
- GRAAL (Space): GMES & Regions - Awareness and Access Link
- HELM: (Environment) Harmonised European Land Monitoring



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# Delivering Information

**In order to favour the environmental information data sharing, IT instruments have been adopted/developed:**

- **The environmental data catalog (ESRI – GI-Cat)**
- **The Spatial information Access Module (MAIS)**



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# Metadata Catalog

- The implementation started in 2010 replacing the old catalogue.
- Metadata are created according to the guidelines on National Implementation of the Inspire Metadata (RNDT).
- The SW used to create Inspire metadata is provided by ESRI (Geoportal) and released under GPL.
- GI-CAT – adopted in 2009, it consist in a broker Catalog to harvest internal and external metadata.

For classification and indexing it is planned to use GEMET – GEneral Multilingual Environmental Thesaurus, made by EEA.



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# Spatial Information Access Module (MAIS)

## OST – Environmental indicators management by territorial Object

A further database has been implemented for the environmental indicator queries. It is possible to render temporal graphics showing specific topic trends.



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# Spatial Information Access Module (MAIS)

## *DEMO SESSION*

<http://www.mais.SINAnet.isprambiente.it/ost>



# EGIDA Project



**BLB**

