



Agenzia per l'Italia Digitale  
Presidenza del Consiglio dei Ministri

# Italian experience in GI Interoperability

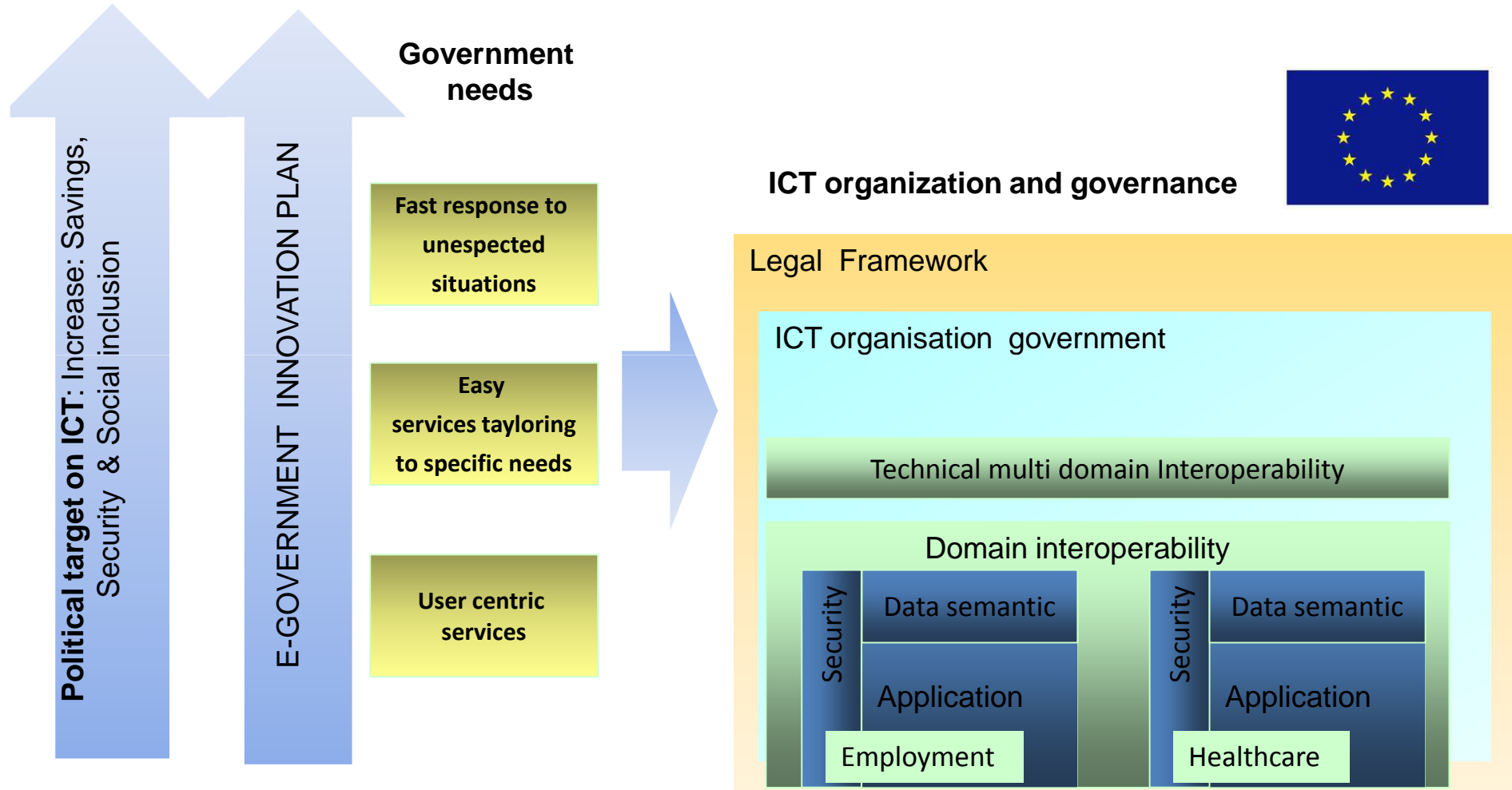
## *Francesco Tortorelli*

Joint CEN/TC 287 and OGC Workshop  
Bringing GI Standards-making bodies together  
*Frascati (Rome), 30 September 2013*

# Agenzia per l'Italia Digitale (AgID)

- AgID (previously CNIPA and DigitPA) is a government agency that works under the guidelines and supervision of the Presidency of the Council of Ministers
- AgID is responsible for implementing the Italian Digital Agenda and has the mandate to perform many tasks such as:
  - To contribute to the spread of the use of information and communication technologies (ICT)
  - To develop technical requirements and guidelines for promoting interoperability
  - To enable full cooperation between information systems of governmental bodies and between these systems and the European Union

# Interoperability: Overall picture



# AgID 's role in the GI context

- Responsible for the development of “Repertorio Nazionale dei Dati Territoriali (RNDT)” - the Italian Catalogue of metadata for Spatial Data
- The national point of reference for the metadata related to the spatial data and service (one of the components of the national Spatial Data Infrastructure (SDI), required by the INSPIRE directive
- Member of the National Committee for technical rules concerning spatial information
- Coordinates and supports projects of the Southern Regions of Italy (Abruzzo, Campania, Molise, Sardegna, Puglia, Calabria, Sicilia - EU Ob.1 Area), aimed at implementing geographic data base and developing geospatial services.



# Italian public spatial data context

- A very large number of public sector bodies collect, produce, reproduce and disseminate spatial data in order to fulfill their public tasks
- However, in Italian data context, in recent past we observed that:
  - There was a significant fragmentation and data overlaps
  - Data were not homogeneous and interoperable
  - Data have had different formats
  - Data were poorly documented
  - Different names were used to identify the same type of data
  - There wasn't a unique public authority for collecting, processing and disseminating spatial data at national level

# Past Italian experience: Intesa GIS Protocol

- In September 1996, “Intesa GIS Protocol” (agreement State-Regions and Local authorities for the construction of geographical information systems of general interest) was signed
  - It aimed at activating organic methods of cooperation and coordination in the implementation of Geographic Information Systems
  - It was based on a voluntary initiative
  - It was not supported by standards

# Digital Administration Code (CAD)

- Requirements
  - Interoperability, usability and sharing of information
  - Harmonization, access and reuse of data managed by government
  - Definition of a clear role of the PA
  - Protection of investments made over the years
  - Support standard and technical rules into a coherent regulatory context

This led to the definition of article 59 of CAD that establishes:

- The creation of the “Committee for Technical Rules on Geographic Information” for the definition of the technical rules on GI
- The creation of the “National catalogue of spatial data” (RNDDT), managed by AgID



# Committee for Technical Rules on GI

- It defined technical rules approved with Decree of November 10, 2011 of Minister of Public Administration and Minister of Environment:
  - Technical rules for the definition of the content of the national catalogue of spatial data RNDT (stands for catalogue of geospatial data)
  - Technical rules for the definition of the specific content of the geographic information database
  - Technical rules for the implementation, documentation and exchange of digital orthophotos at a nominal scale 1:10000
  - Adoption of the Italian geodetic reference system, certified by EUREF Technical WG
- It contributed to the definition of the technical and economic rules for the use of cadastral data by other administrations, (Decree of November 13, 2007 of Director of Cadastral Agency)
- It produced the technical rules for the implementation of the DB related infrastructure for the provision of public utility services
- AgID was a member of the Committee and the technical secretariat, providing technical and scientific support
  - AgID collaborated with experts of the INSPIRE Drafting Team contributing to the Italy Feasibility Test (Monitoring & Reporting) and providing support for Metadata Implementing Rules (IR)



# Standard-based approach

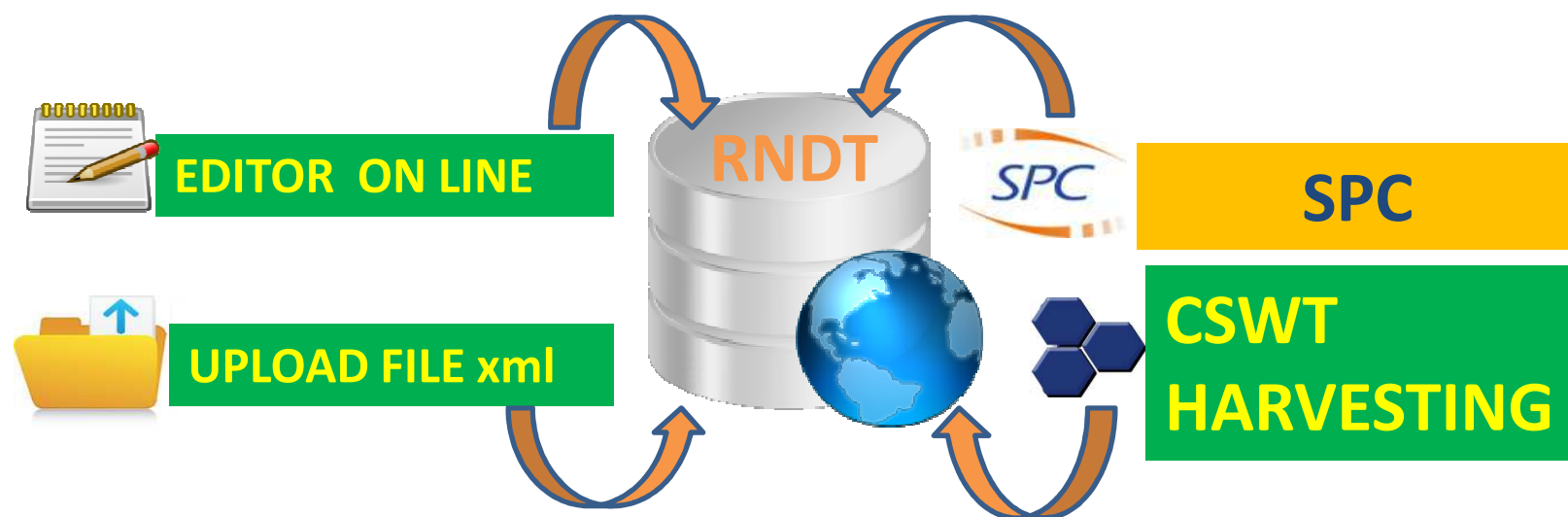


# National catalogue of spatial data - RNDT

- It is the Italian base register (authentic source) of spatial data of PA, and it is a component of the national infrastructure for spatial information
- It can be used to promote interoperability in GI sector and the development of services based on the integration of data
- It facilitates the implementation of policies on sharing, access and re-use
- It facilitates the evolution of spatial information in terms of quantity and quality (normalization of data, metadata and reliability of real correspondence with the documented record)
- It promotes effective open data policies
- It serves as engine for the economic exploitation of GI

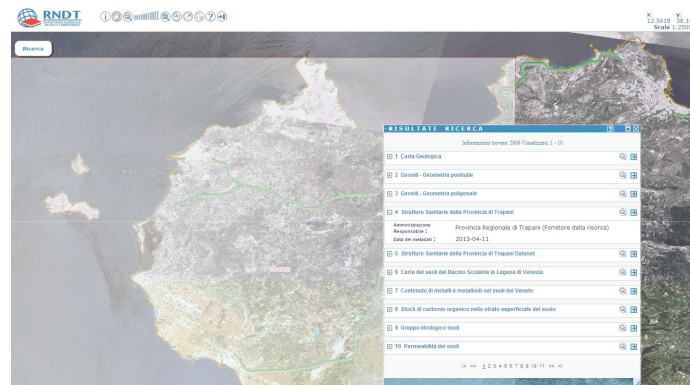
# National catalogue of spatial data – RNDT/2

## Collection of metadata provided by PA



# National catalogue of spatial data – RNDT /3

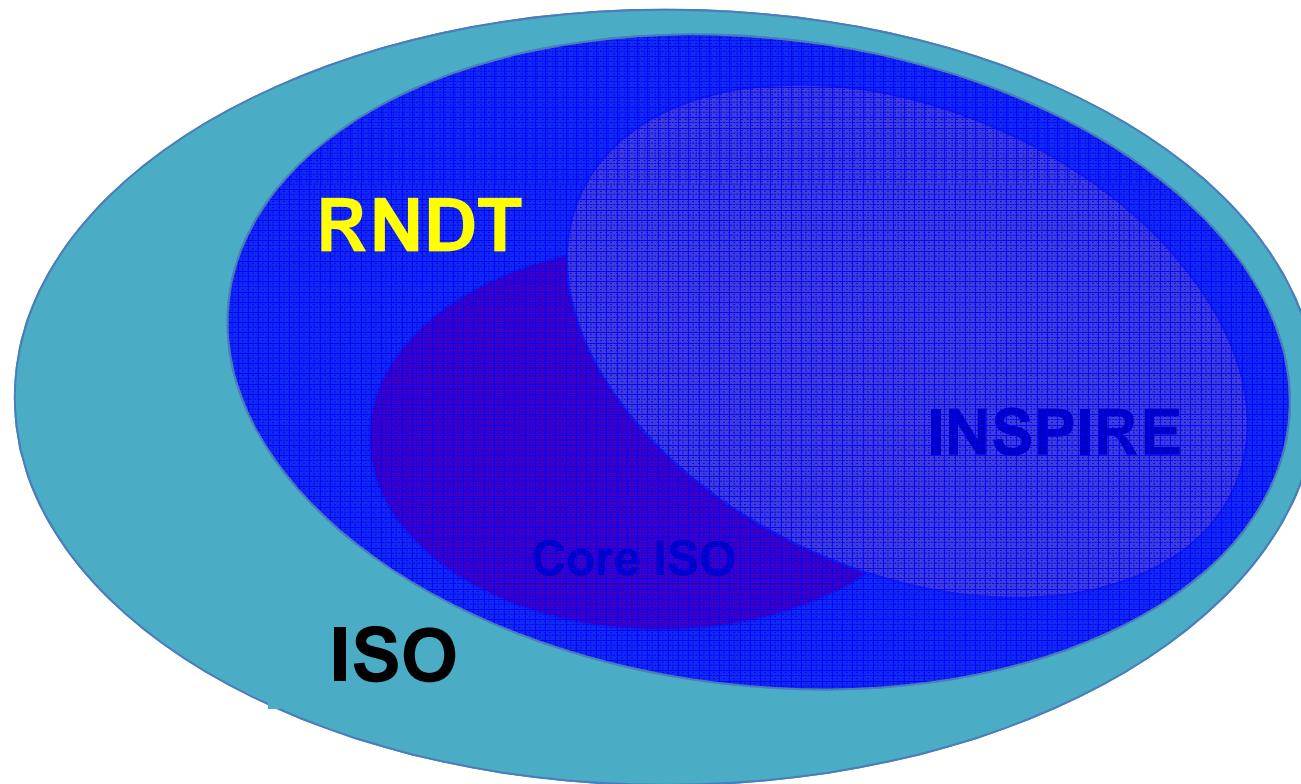
- Discovery service (for public and private sector)



- Web
- CSW service catalogue which is interoperable with INSPIRE geoportal

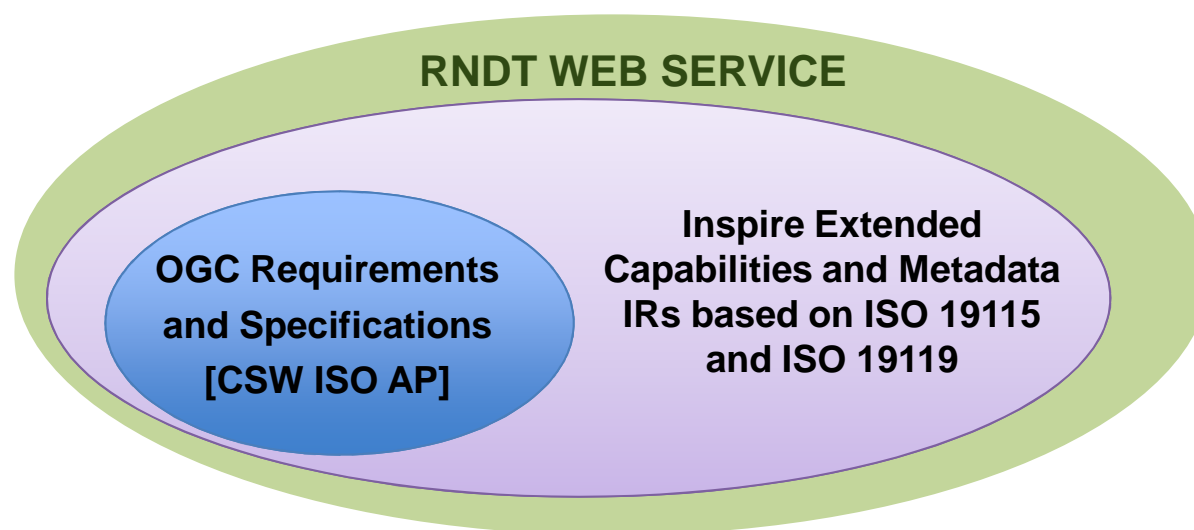
# National catalogue of spatial data – RNDT/4

RNDT includes all the elements of the metadata Implementing Rules (Reg. EC 1205/2008) as well as the mandatory metadata required by interoperability of spatial data sets and services Implementing Rules (Reg. EU 1089/2010 and EU 102/2011)



# National catalogue of spatial data – RNDT/5

- The Web Service-based implementation of RNDT ensures both OGC and INSPIRE compliance
- AgID developed, using open-source software, its own discovery service, according to INSPIRE requirements
  - In order to publish over the web in a standardized and machine-readable way all geographic metadata collected in RNDT
- Interoperability tests with INSPIRE geoportal were completed successfully
- Compliance tests to get OGC Certification are in progress





Agenzia per l'Italia Digitale  
Presidenza del Consiglio dei Ministri

**Thank you for the attention!**