

# Harmonisation of spatial planning data

## Hyperborea experience & contributions in

### Plan4ALL

(Norma Zanetti)

## WHO ARE WE?

### Hyperborea Profile

#### 1. Development

- Object-oriented middleware and databases
- Web GIS applications

#### 2. Products & Services

- Waste Management Procedures
- Automated procedures on Workflow management systems

#### 3. Standards

- OGC Standards
- Inspire Directive

#### 4. Customers

- Regional governments (Tuscany, Sardinia, Veneto, etc.)
- Regional Agencies for Environment Protection

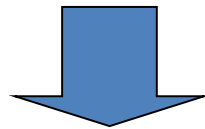
## Environmental SW Systems

- ❑ **Geo-referenced Cadastral SW Systems development**
  - ❑ **Radio-Frequency Systems**  
(customer: ARPAT)
  - ❑ **Waste Management System and Policlorobifenili (PCBs) Measurement Systems**  
(customers: ARPA Tuscany and Sicily)

## Environmental SW Systems for Spatial Planning

- ❑ **Inter-thematic SW Systems for spatial planning development including:**
  - ❑ **Air**
  - ❑ **Water**
  - ❑ **Soil (e.g. polluted site)**
  - ❑ **Electromagnetism**
  - ❑ **Industrial Waste**

**Customer: Sardinia Region – SIRA  
(Regional Environmental Information System)**



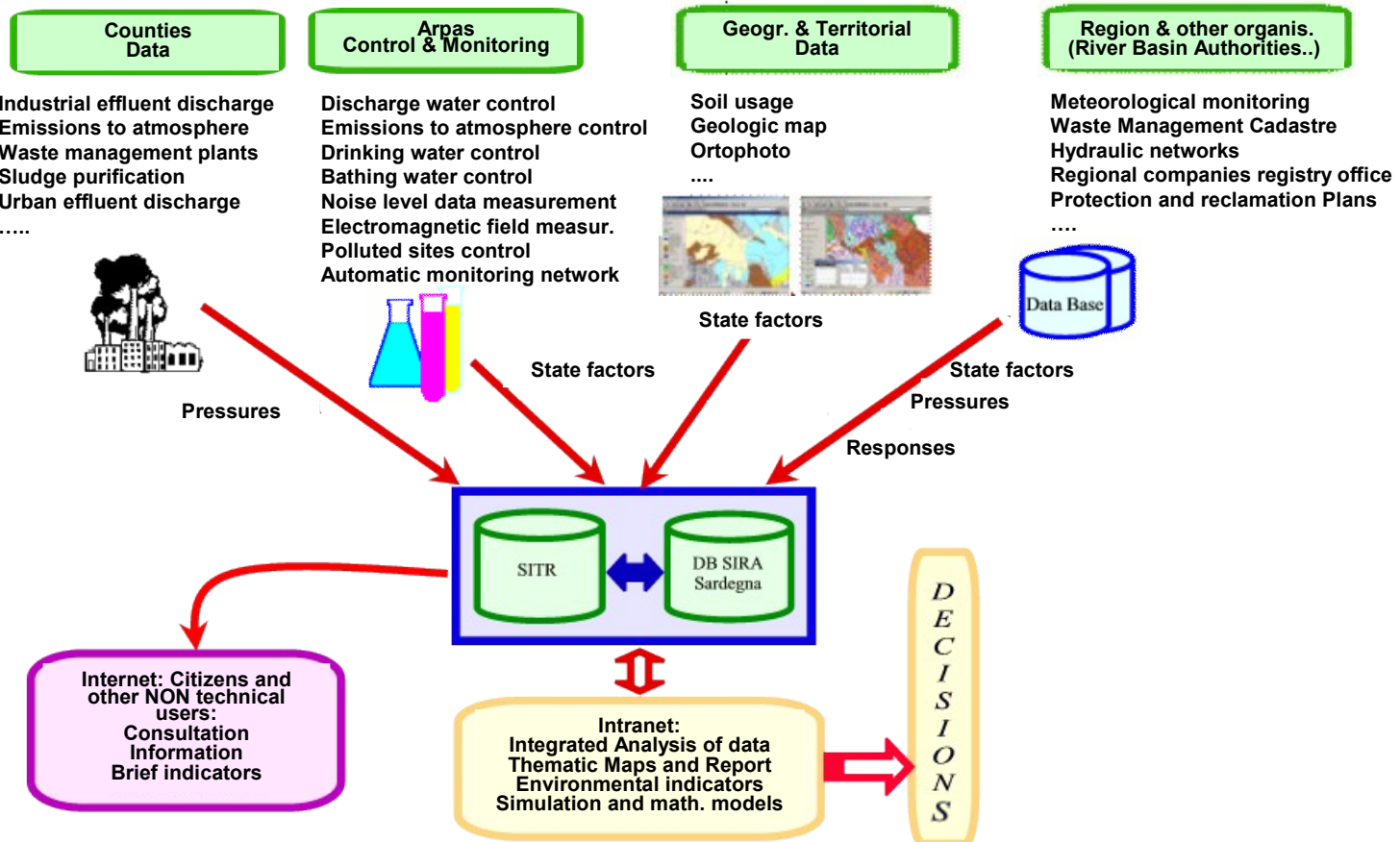
**Regional Use Case**

## Regional Use Case

- ❑ **Support to management & decision processes in all regional Public Administrations with regard to environmental issues: planning, management and control of territory and of environmental resources.**
- ❑ **Integration of information derived from different environmental data sources into a shared “regional environmental information system”, devoted to all organisations involved in the regional territory management, control and planning and to citizens.**
- ❑ **Support and contribution to make administrative procedures and environmental controls results more transparent (being fully in line with eGovernment main aims).**

## Regional Use Case

### The Regional shared environmental knowledge base



## Regional Use Case: IDT Re-Use and SITR Integration (new services and layers)

### □ Standards:

- Metadata Catalog: ISO19115, ISO19139, Dublin Core
- Repository: ISO19110
- Services: OGC WMS, OGC WFS

### □ Stack:

- Oracle Spatial 10g
- ArcGIS Server
- Tomcat
- Jboss
- OpenLayers API.

## Regional Use Case: Web-GIS GeoProcessing

**Advanced feature**  
**Through the web browser,**  
**the user can:**

1. visualise the object of interest
2. carry out processing tasks including distance and areas measures.
3. Create an area around the current object to verify its overlapping with other objects of interest.

SCARICO IDRICO S5610765 - LOC. CABU ASPRU - SASSARI (SS)

Fonte: D.A.D.A. n° 1807 - rilascio autorizzazione D. Lgs. 152/06 - Non definita del 06-10-1995 intestata a ENEL S.p.a. Centrale di Fiume Santo

**Caratterizzazione**

Denominazione: S5610765

Sigla o n° scarico assegnato dal gestore: S5610765

Frequenza (h/d): 24.0 h/d Durata (d/a): 365.0 d/a

Portata oraria (m³/h): 0.0 Portata oraria massima (m³/h): 0.0 Portata annua (m³/a): 0.0 Portata annua massima (m³/a):

Modalità acquisizione dati:

Tipo di scarico: non rilevato Tipo di recettore: Fognature

Impianto di dep. a monte: Sifonatore di piena: Presenza di sostanze pericolose:

Abitanti equivalenti: Abitanti serviti: Spese:

Indirizzo: loc. Cabu Aspru - SASSARI (SS) Georeferenziazione (centroide): X 1441640 - Y 4521940 Quota sul livello del mare(m): 6.00

☷ **Dati catastali**

☷ **Valori limite**

☷ **Sostanze pericolose per ciclo produttivo (Tab.3A)**

☷ **Scarichi Parziali**

☷ **Stazioni di monitoraggio - Valutazione conformità scarico**

**Mappa**

Cartografie

Ortofoto 2009

Carta Tecnica Regionale

SIRSA

Layer Interattivi

**Acqua**

Rippe marino-costiere

Acque di transizione

Ripolliti

Bacini idrografici

Corsi idrici sotterranei

Corsi idrici superficiali

Corsi di acqua

Bacini idrogeologici

Laghi-embalati

Pacsonetti

Pisci

Mappe di sintesi

Legenda

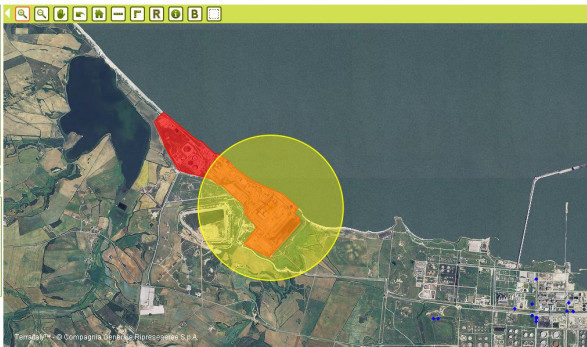
Buffer

Tema:

Unità locali: [ ]

Unità di misura: km

Distanza: [ ] Val: [ ]



**Risultati**

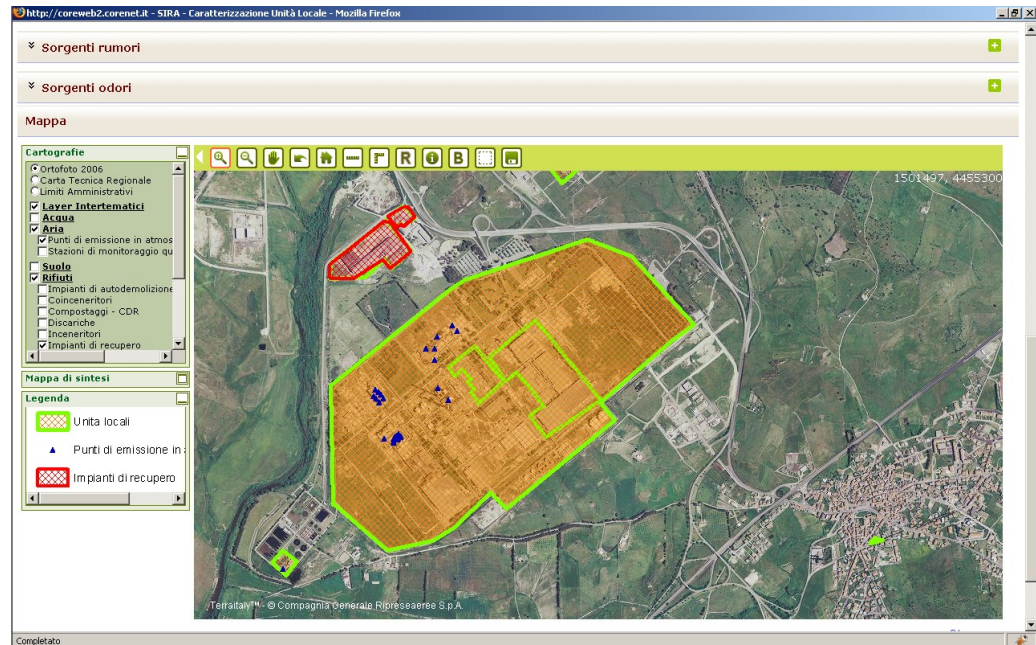
→ Unità Locale - CENTRALE FLUMESANTO - S.P. 57, loc. CABU ASPRU - SASSARI (SS)

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## Regional Use Case: Geographic Data Management

- Geographic Data are managed through web based applications
- Geometry editing visualises complex alphanumeric data and information
- The cartographic module exploits OGC WMS available in the Data infrastructure of the Regional Territorial Information (e.g. ortophoto)



## OUR ROLE in PLAN4ALL

### ❑ **Standardisation**

- ❑ Analysis of INSPIRE Requirements and definition of standards

### ❑ **Implementation**

- ❑ Regional implementation and Pan European Deployment

### ❑ **Validation & testing**

- ❑ Validation of methodology and standards

### ❑ **Exploitation and Dissemination**

- ❑ Clustering and consensus building, exploitation strategy

## EXPLOITATION OF RESULTS

- ❑ **Adoption and promotion of new pan-European standards for spatial planning data within its customers procedures, namely: Environmental Protection Agencies, River Basins Authorities, Regional and municipality governments, etc.**
- ❑ **Improvement of cooperation with and among different environmental and GeoSpatial information systems adopted by Public Administrations, thus contributing to more efficient and efficacy protection from natural disasters (e.g. flood protection)**
- ❑ **Exploitation of existing best practices in EU regions and municipalities, of results of current research projects to develop more innovative applications systems for DSS with respect spatial planning**

## SIRA - Regional environmental information system

**Software system for environmental cadastral data and geographical management, analysis and planning concerning air, water, waste facilities, soils and contaminated sites, radio-frequency electromagnetic sources, low-frequency electromagnetic sources and power lines for Sardinia Regional Government**

### **Technology**

**J2EE, WMS, WFS, Oracle Spatial, ArcGIS Server**

## SITR - Regional territorial information system

**Software system for collection and integration of geographical data generated by local administrations, along with the publication of standard web services, based on INSPIRE rules, for providing such geographical dataset for Sardinia Regional Government**

### **Technology**

**J2EE, WMS, WFS, Oracle Spatial, ArcGIS Server**

# Thank you for your attention...



[n.zanetti@hyperborea.com](mailto:n.zanetti@hyperborea.com)