



SNIG Development Priorities: the renewal under INSPIRE Umbrella

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Outline

- Context
- The Portuguese National Spatial Data Infrastructure
- Actual issues around main SNIG components
- Final remarks

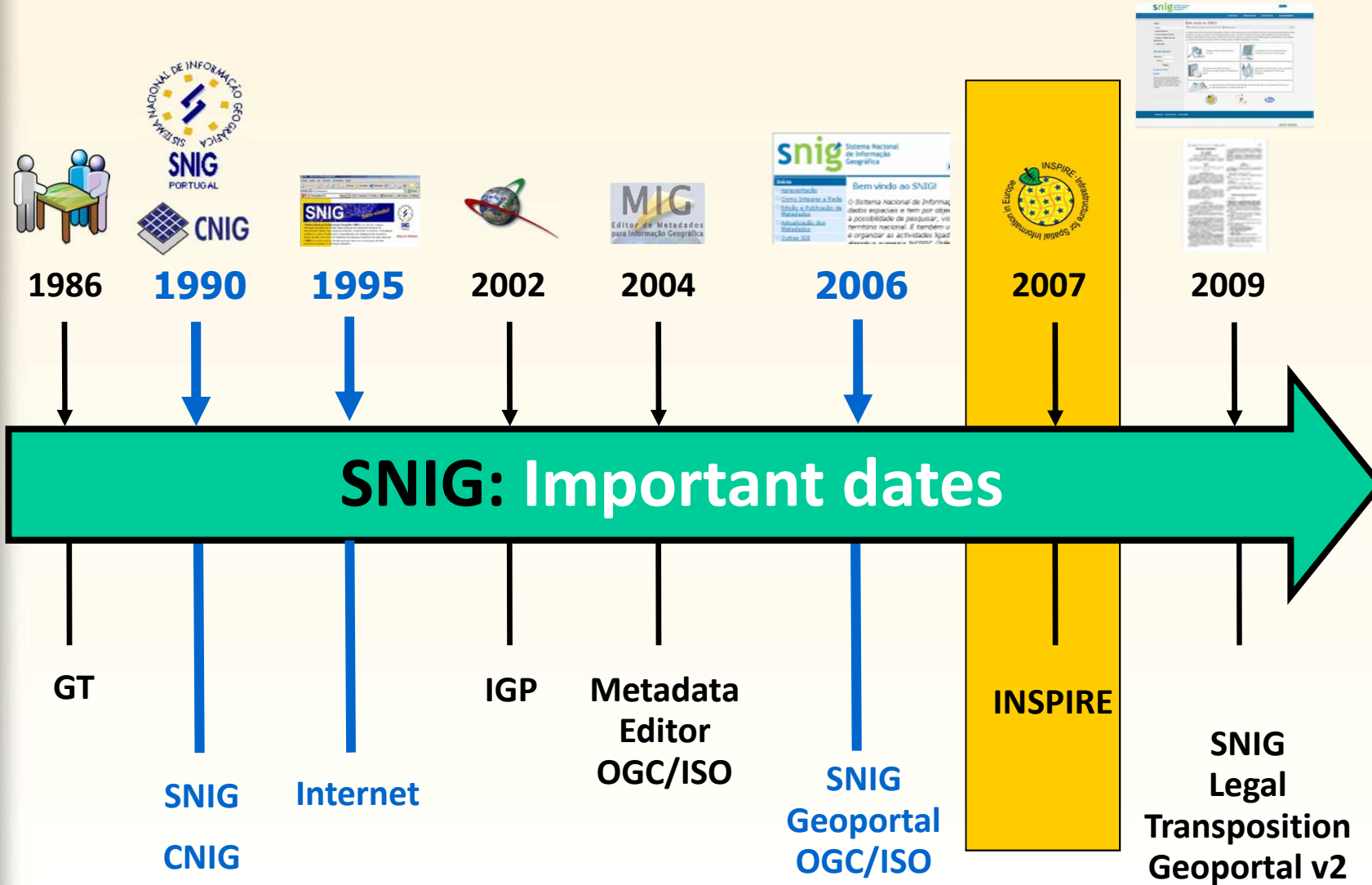
snig

Sistema Nacional de Informação Geográfica

European SDI Best Practice Award 2009

eSDI-NET **plus**

Context - SNIG Evolution



Context

- August 2009 – **Decree-Law 180/2099** was published in order to meet the requirement of INPIRE Directive transposition - a new scene for the National Spatial Data Infrastructure (NSDI) development in Portugal was established
- SNIG has a new legal framework, which created the **Coordination Council (CO SNIG)** for strategic decision regarding SNIG evolution
- SNIG has evolved in **technical** terms following the main developments achieved in the SDI domain
- SNIG coordinator – IGP – is also the **NCP for INSPIRE** being actively involved in all INSPIRE related activities in Portugal, steering its implementation

This paper aims to present the Portuguese National Spatial Data Infrastructure developments under INSPIRE umbrella and the actual issues around SNIG main components.

The Portuguese National Spatial Data Infrastructure

SNIG is following the advances made in recent years

- standards on geographic information (GI)
- XML and Web Services
- new computing models such as the Service Oriented Architecture (SOA)

SNIG Main Components

- Metadata Catalogue
- Catalogue Search
- Publication of Metadata
- Viewer
- SNIG Geo-portal



The Portuguese National Spatial Data Infrastructure

Catalogue search form



CATÁLOGO

Pesquisar Resultados 1-10 de 36 registos(s)


Expandir resultados [Aproximar aos resultados](#) [Aproximar à área de pesquisa](#)

Opções Adicionais
Limpar

ONDE

Qualquer lugar Utilizar extensão geográfica A informação deve estar contida na área

SINTRA, Concelho, Continente
SINTRA (SANTA MARIA E SÃO MIGUEL), Freguesia, Continente
SINTRA (SÃO MARTINHO), Freguesia, Continente
SINTRA (SÃO PEDRO DE PENAFERRIM), Freguesia, Continente
MIRA-SINTRA, Freguesia, Continente
Ribeira de Sintra, Concelho de SINTRA, Continente
São Pedro de Sintra, Concelho de SINTRA, Continente
Várzea de Sintra, Concelho de SINTRA, Continente



Ortofotocarta DGRF/AGP 0401A4A

Ortofotocarta DGRF/AGP 0401A4B

Ortofotocarta DGRF/AGP 004152A

Ortofotocarta DGRF/AGP 004023A

Ortofotocarta DGRF/AGP 004152B

Ortofotocarta DGRF/AGP 004023B

Ortofotocarta DGRF/AGP 004154A

Ortofotocarta DGRF/AGP 004161A

Folha da série ortofotocartográfica digital do território continental, com resolução de 0.5 m, a quatro cores (RGB+IV), obtida por mosaico de fotografia aérea orto-rectificada. O voo foi efectuado com câmara fotogramétrica digital, UltraCam VEXCEL. A séri...

[Abrir](#) [Pré-visualizar](#) [Detalhes](#) [XML](#) [Metadados](#) [Partilhar](#) [Aproximar](#)

Ortofotocarta DGRF/AGP 004024A

Ver resultados através de REST
API: [GEORSS](#) [ATOM](#) [HTML](#) [FRAGMENT](#) [KML](#)

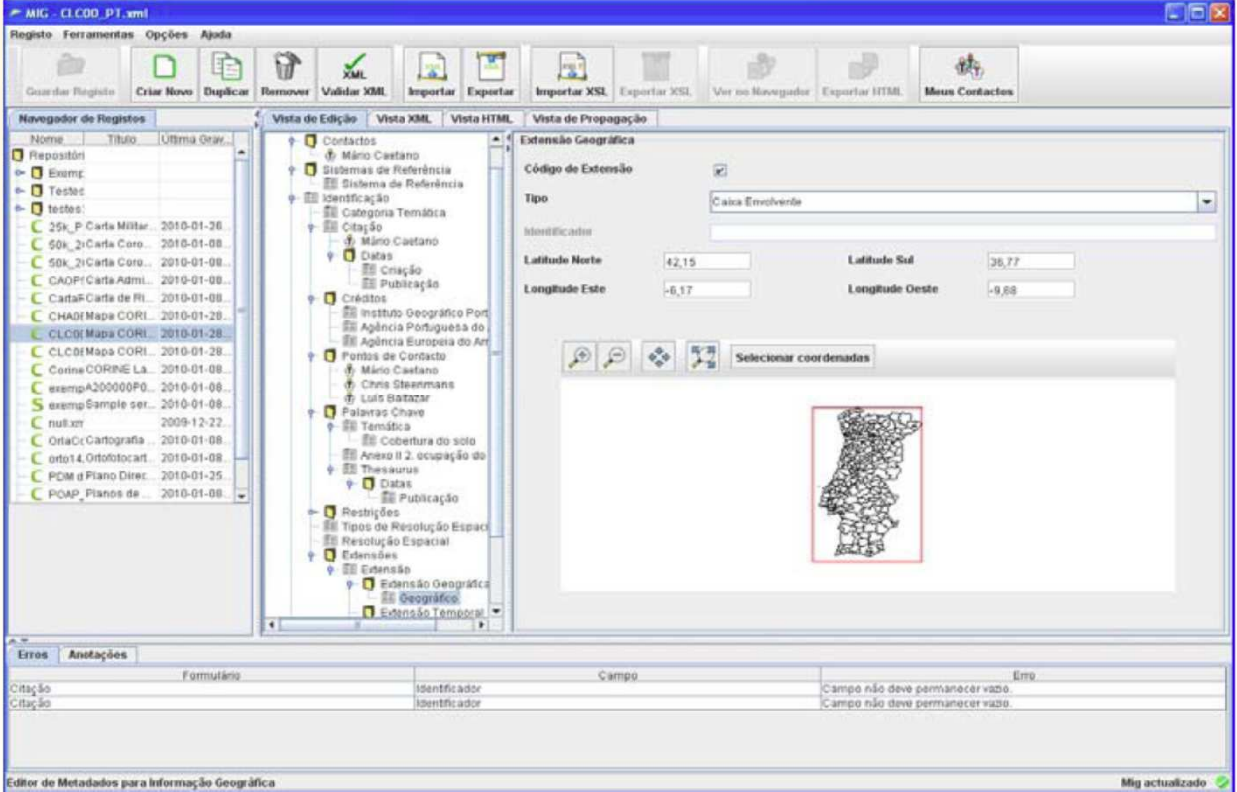
QUANDO

De: ... (aaaa-mm-dd)

Até: ... (aaaa-mm-dd)

The Portuguese National Spatial Data Infrastructure

MIG Editor



The screenshot displays the MIG Editor application window. The interface includes a menu bar (Registo, Ferramentas, Opções, Ajuda), a toolbar with icons for file operations and validation, and a main workspace divided into several panes:

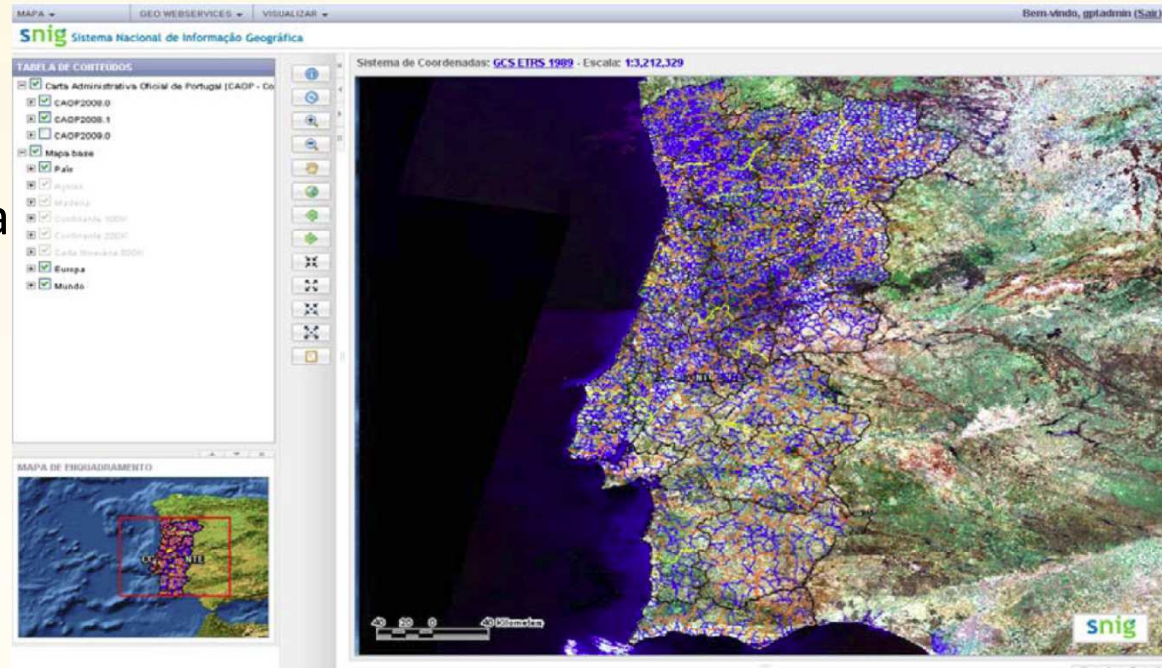
- Navegador de Registos:** A tree view on the left showing a hierarchy of metadata records, including 'Repositório', 'Exemp', 'Testes', and various map and data records with their respective titles and dates.
- Vista de Edição:** A central tree view showing the metadata structure for a selected record, including fields like 'Contactos', 'Sistemas de Referência', 'Identificação', 'Citação', 'Créditos', 'Palavras Chave', 'Restrições', and 'Edensões'.
- Vista de Propagação:** A right-hand pane for editing specific metadata fields. It includes a 'Código de Extensão' dropdown, a 'Tipo' dropdown, and input fields for 'Latitude Norte', 'Latitude Sul', 'Longitude Este', and 'Longitude Oeste'. A map of Portugal is shown below these fields.
- Erros / Anotações:** A table at the bottom showing validation errors or notes.

Erros	Anotações	Formulário	Identificador	Campo	Erro
Citação			Identificador		Campo não deve permanecer vazio.
Citação			Identificador		Campo não deve permanecer vazio.

At the bottom of the window, it reads 'Editor de Metadados para Informação Geográfica' and 'Mig actualizado' with a green checkmark icon.

Portuguese National Spatial Data Infrastructure

Combined
Visualization: Official
Administrative Map
and Portugal Base
Map



Actual issues around main SNIG components

SNIG development is being reviewed considering:

- The INSPIRE technical data and services specifications
- A new legal framework
- The available technical, human and financial resources
- Potential internal technical synergies with other systems under future DGT
- Potential partnerships with other public data providers



Actual issues around main SNIG components

Actual main issues are focused in SNIG main components:

- Metadata
- Services
- Training
- Data Sharing

Actual issues around main SNIG components

Metadata

- (1) Update the National Metadata Profile created in 2007
- (2) Improve the tool developed for the production and edition of metadata
- (3) improve the Registry for National Spatial Data (RNDG)

A thesaurus in Portuguese harmonized with the MIG Editor keywords is foreseen

Actual issues around main SNIG components

Metadata

(1) **update the National Metadata Profile** created in 2007, last version 1.2, March 2010

- Wider range of authours, from several public administration entities, under the scope of the Transversal WG – Metadata and Services.
- Objectives: nomenclature harmonization between the existing documentation and tools, wider agreement in what should be the base metadata, refinement of some fields regarding the INSPIRE operational requeriments (geoportal interoperability)
- Based in a broader experience, systems evaluation and several documentation available.
- Status: **Draft**, waiting comments and approval from the Transversal WG

Actual issues around main SNIG components

Metadata

(2) improve the tool developed for metadata production and edition

-MIG Editor:

- Created in 2005, last version 3.1 July 2010
- Follows technological evolution and INSPIRE specifications related to:
 - services metadata, add new metadata requirements (Annex I - spatial data sets)
 - harmonize nomenclature according the new version of the national profile.
- Other improvements aim to allow a more efficient validation process, a better automatic metadata acquisition and improve usability.

Evaluate other recent Portuguese metadata editors, like **GEMA**, developed by the INSPIRE Açores WG already a mature tool, based in the Portuguese metadata profile and INSPIRE specifications

Actual issues around main SNIG components

Metadata

(3) **implement the Geographical Data National Registry (RNDG)** with the identified official thematic and topographic datasets, resultant of the process of the identification of the responsible public entities, dataset survey and evaluation of cartography quality requirements (*homologação*).

Actual issues around main SNIG components

Services

- (1) as SNIG catalogue search services are not compliant with INSPIRE specifications, **a new search service**, based on Degree 3.1.1 CSW, already set-up to guarantee the interoperability with the European SDI and providing access to the around 600 metadata records corresponding to the spatial data and services monitored in 2011, is being improved
- (2) work towards **INSPIRE compliance of the SNIG geoportal visualization (WMS 1.1.1) and download services (WFS 1.0.0)** available through the metadata catalogue, considering the Initial Operating Capability (IOC) conditions
- (3) **discuss the guidelines recently produced by a technical working group involving IGP and some public authorities** – “Guide for the configuration and publication of Visualization Services INSPIRE-PT”;
- (4) prepare the IT Infrastructure to be able to guarantee the minimum INSPIRE service quality levels (QoS).

Actual issues around main SNIG components

Training

- (1) continue to develop training actions in relevant areas such as metadata, geo webservices and data harmonization
- (2) produce contents to provide through the e-learning platform

Actual issues around main SNIG components

Data Sharing

- (1) develop a study on spatial data sharing and dissemination policies
- (2) develop a SNIG cost-benefit analysis to support data dissemination policies

Final Remarks

Integrated in a new legal framework SNIG is under review:

The following actions will be put into place

- different users testing and evaluation in order to understand this NSDI usefulness and indentify its strong and weak points
Concerning :
 - User requirements/data fitness
 - User interface
 - Functionalities and contents
 - e-Commerce

SNIG has to continue to **evolve to an open, flexible, interoperable and participated SDI** able to guarantee an effective and reliable access to the spatial data and services provided by the public authorities in Portugal promoting and