

# PUBLIC POLICIES AND GEOGRAPHIC INFORMATION

## Basis for a Strategy for Next Generation SDI

JIIDE 2013  
November 2013

Rui Pedro Julião  
[rpj@fcsch.unl.pt](mailto:rpj@fcsch.unl.pt)







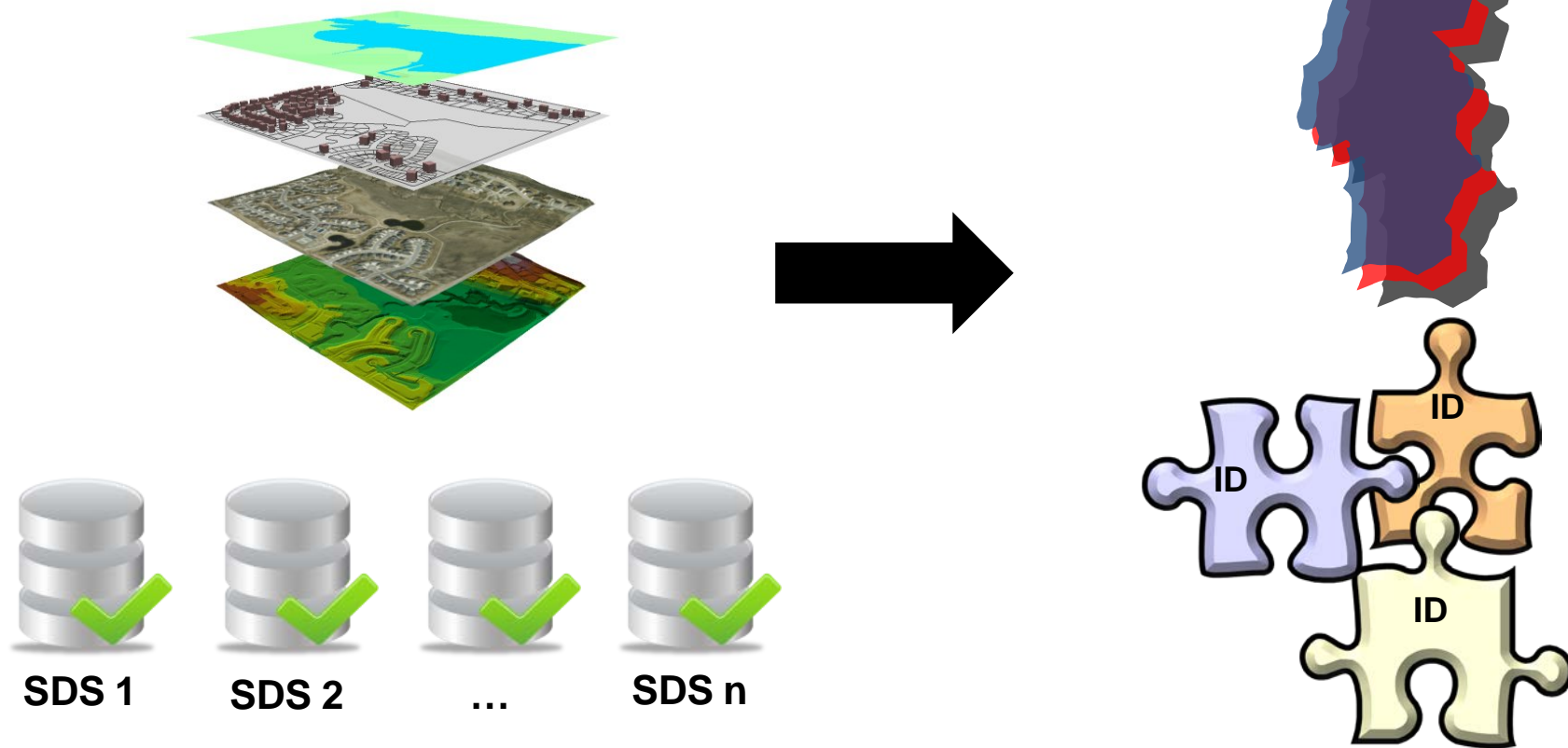




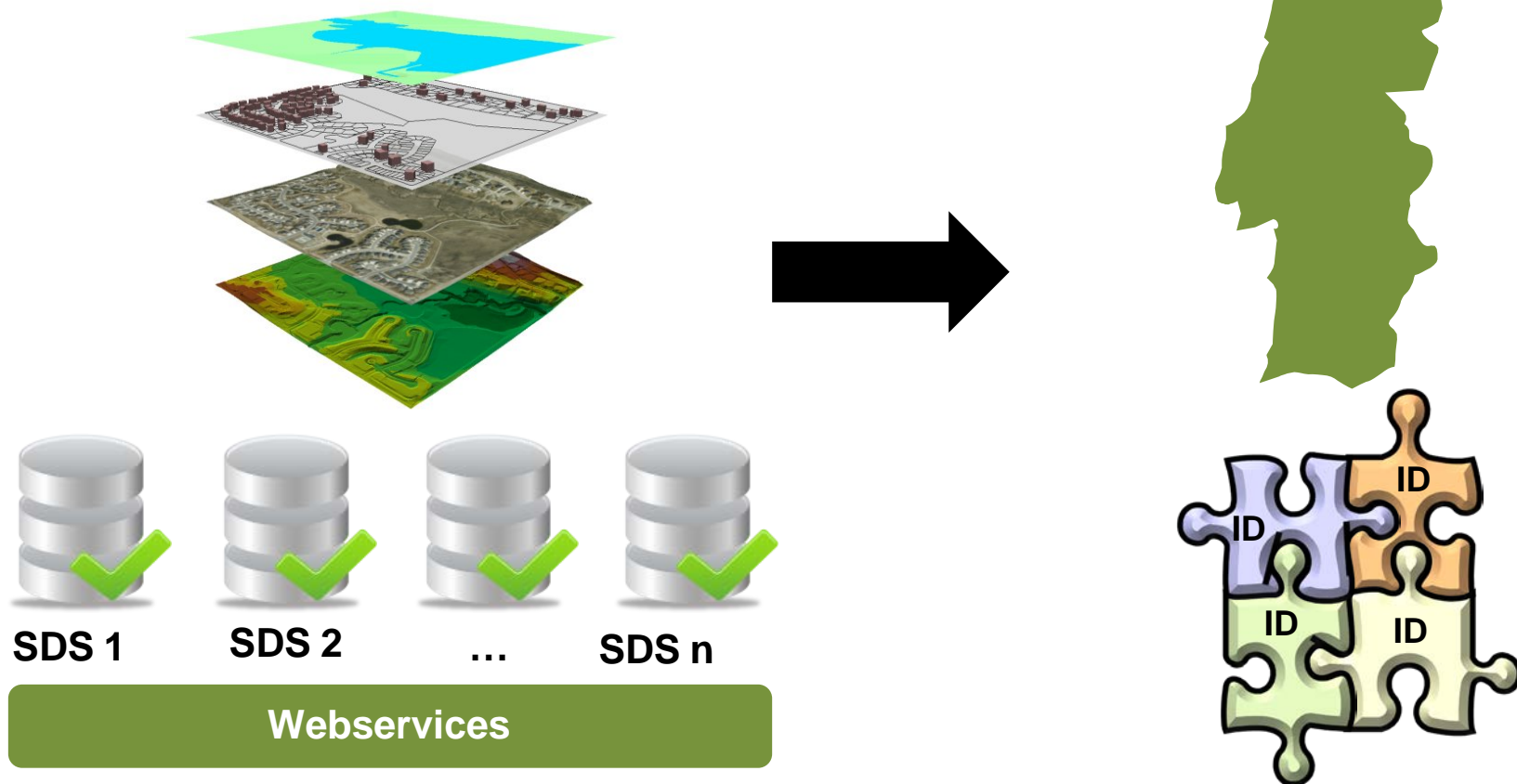
# Territorial Management

- Several perspectives
- Need for “new Spatial Planning concept playing with a more active role in sectorial policies integration using shared territorial based visions” Ferrão (2011: 40)
- PNPOP – National Programme for Spatial Planning Policy
  - Framework for different territorial management tools
  - Establish the need for them to be supported upon sound geographic data
- Keywords: Territory / Management / Integrated
- Good Management => Good information

# Good Management => Good information



# Good Management => Good information



# Public Policies for Spatial Data

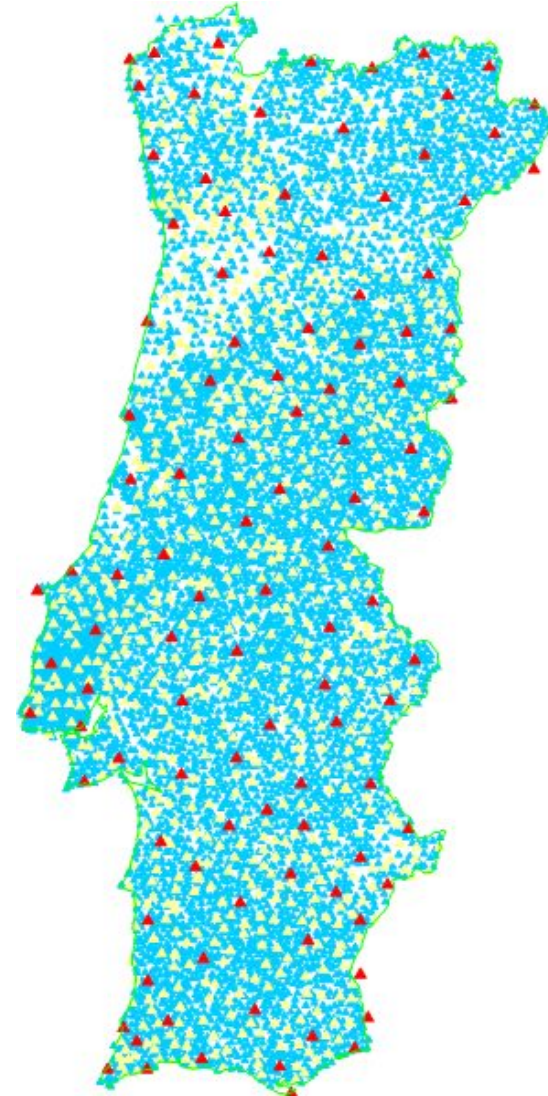
- Long tradition and several initiatives
- Implementation capacity
- Integration capacity
- Key domains
  - Geodesy
  - Cartography
  - Cadastre

# National Geodetic Network

- Mainland and Autonomous regions
- $\pm 9.000$  geodetic points
- 42 GPS permanent stations



- ▲ GP 1<sup>st</sup> order
- ▲ GP 2<sup>nd</sup> order
- ▲ GP 3<sup>rd</sup> order





# RENEP and SERVIR

## INFORMAÇÃO GEODÉSICA



### RENEP - Rede Nacional de Estações Permanentes

#### Descrição

A RENEP é um serviço público de geo-posicionamento prestado pelo IGP que, no âmbito das suas atribuições de manutenção do Referencial Geodésico Nacional, disponibiliza aos utilizadores de equipamentos GPS dados que facultam a determinação de coordenadas geográficas com precisão melhor que 10 cm. É constituída por Estações GPS/GNSS, de observação contínua, que difundem observações do Sistema de Referência ETRS89, para posicionamento em tempo-real, utilizando a técnica efectuar o [registo](#) como utilizador. RTK, ou para pós-processamento com ficheiros RINEX.

#### Como utilizar

- Todos os dados são de distribuição gratuita.
- Para pós-processamento consulte o Arquivo RINEX.
- Para aceder ao serviço em tempo-real deve efectuar o [registo](#) como utilizador.

Arquivo RINEX

IGP

«»

Fevereiro 2013

«»

Dom	Seg	Ter	Qua	Qui	Sex	Sab
-	-	-	-	-	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	-	-

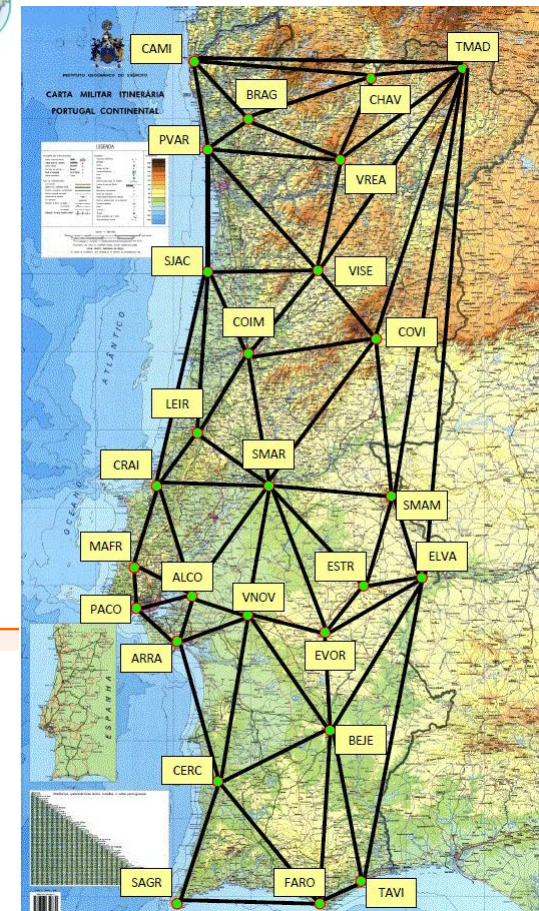
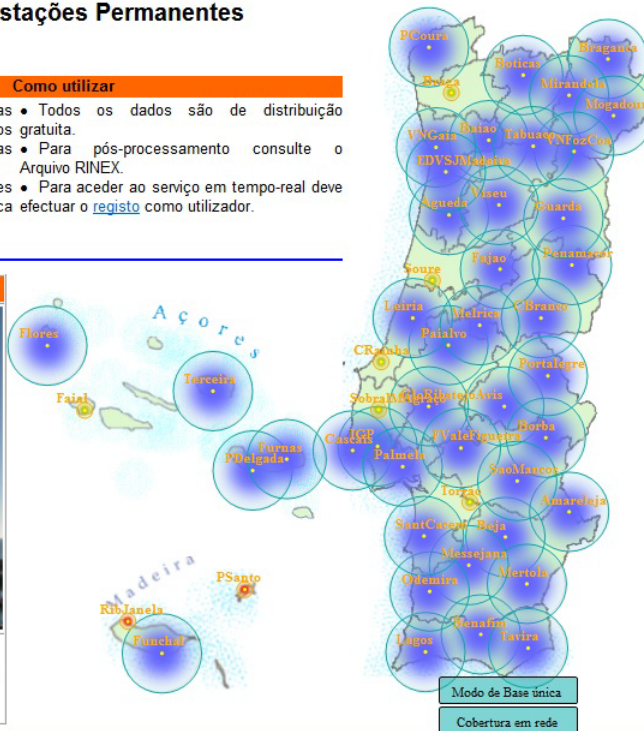
Selecciona a EP e o dia pretendidos.  
 Cada ficheiro respeita ao período de 1 hora com intervalo entre observações de 5 segundos.  
 Para informações adicionais contacte a [Divisão de Geodesia](#)

Detalhes da cobertura



Selecione no mapa a Estação pretendida.

A RENEP é um sistema cooperativo. Se possui ou vai instalar uma Estação GPS, junte-se a [nós](#).



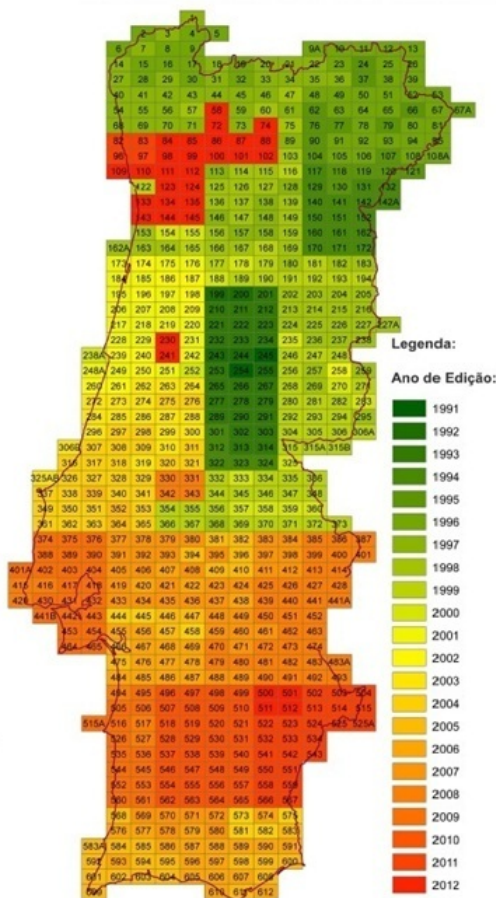
Entidades Participantes:

Optimizado para IET (1280x1024 px).

# Cartography



Escala 1:10 000  
 Instituto Geográfico Português  
[www.igeo.pt](http://www.igeo.pt)



Escala 1:25 000  
 Instituto Geográfico do Exército  
[www.igeoe.pt](http://www.igeoe.pt)

Legenda  
 Carta 1:50 000  
 Anos de edição  
 1960 - 1969  
 1970 - 1979  
 1980 - 1988  
 1989 - 1999  
 2000 - 2010



Escala 1:50 000  
 Instituto Geográfico Português  
[www.igeo.pt](http://www.igeo.pt)



# Cartography

- Some problems
  - Temporal gap
  - Contents missing
  - Homologation process
- Some solutions
  - Orthophoto imagery
  - Flexible dataset items catalogue
  - Collaborative process – CAOP

# Cartography

## CARTA ADMINISTRATIVA OFICIAL DE PORTUGAL



[CAOP em vigor \(versão 2013\)](#)

[Alterações à CAOP](#)

[Legislação](#)

[Informações úteis](#)

[Perguntas frequentes](#)

## Carta Administrativa Oficial de Portugal

A Carta Administrativa Oficial de Portugal (CAOP) regista o estado da delimitação e demarcação das circunscrições administrativas do País. A Assembleia da República é o organismo com competência, reconhecida por lei, para alterar e fixar limites administrativos. A Direção-Geral do Território (DGT) é responsável pela execução e manutenção da CAOP, de acordo com o Despacho conjunto nº 542/99, de 31/05/1999, publicado no Diário da República nº 156 de 07/07/1999.

### Download das versões anteriores da CAOP

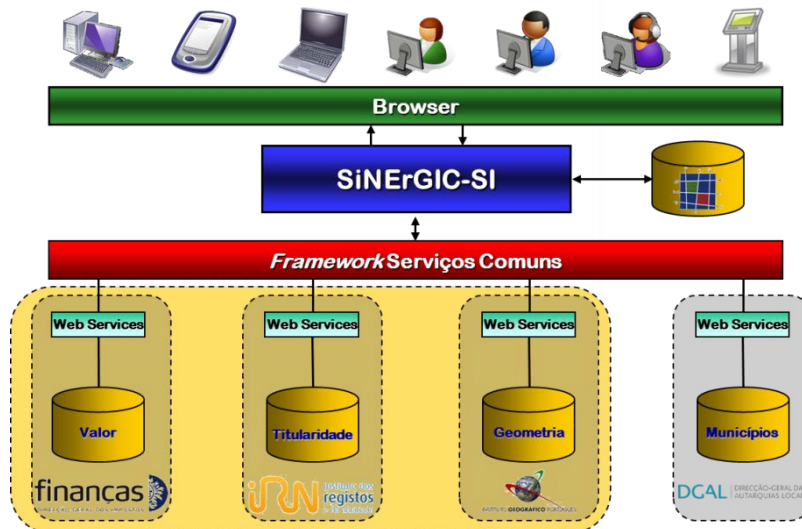
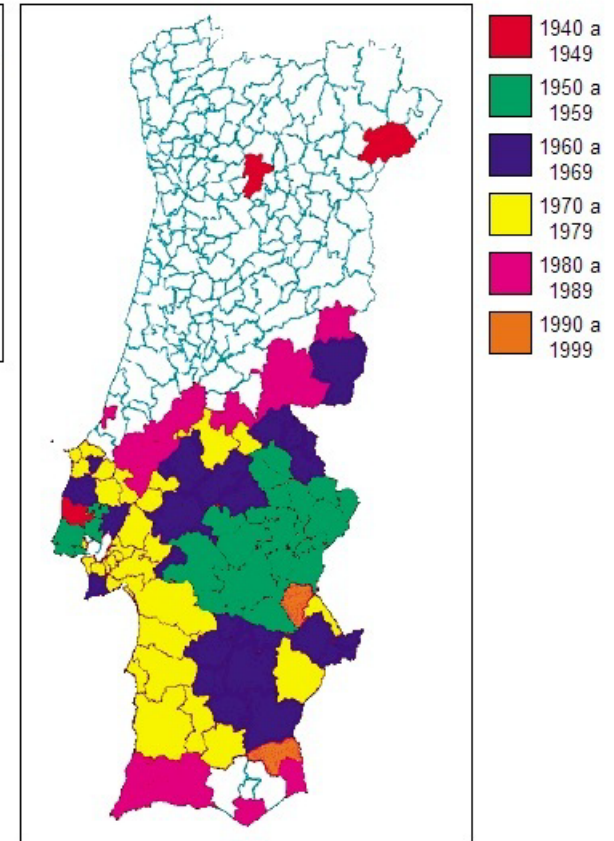
- CAOP 2012.1
- CAOP 2012.0
- CAOP 2011
- CAOP 2010
- CAOP 2009.0
- CAOP 2008.1
- CAOP 2008.0
- CAOP V6.0
- CAOP V5.0
- CAOP V4.0
- CAOP V3.0
- CAOP V2.0
- CAO V1.0

[Sugestões](#) | © IGP 2012



# Cadastre

- **CGPR**
  - 50% surface ≠ 50% data
- **SiNErGIC**
  - Information System
  - Execution plan
- **RCM n.º 56/2012, 5 de Julho**
  - CTGIC
  - Data centralization (2013/12/31)



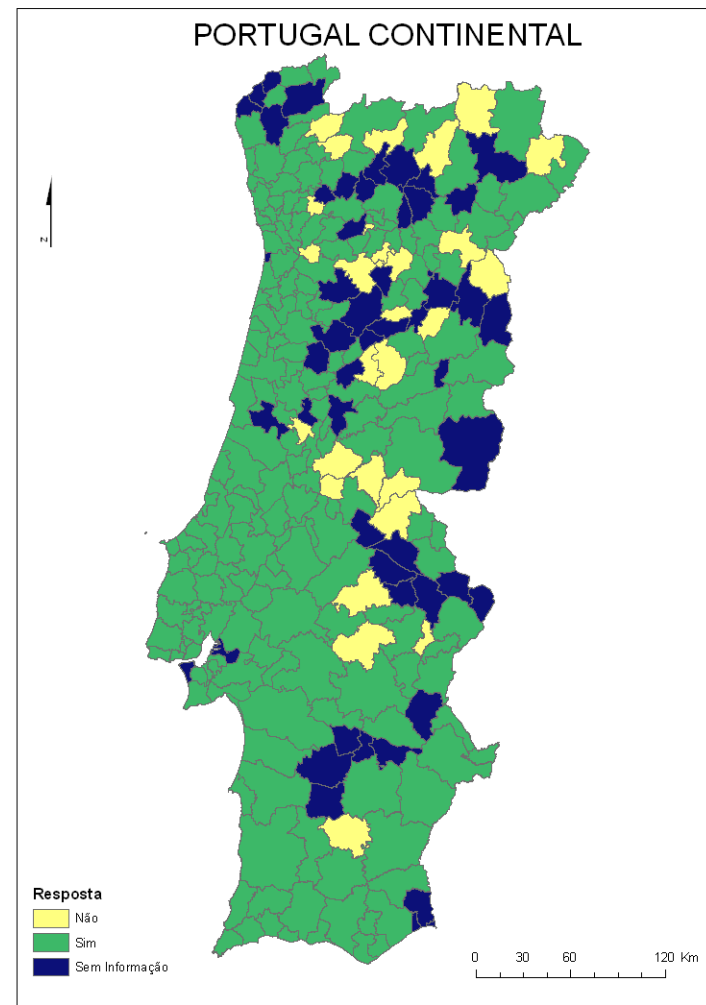
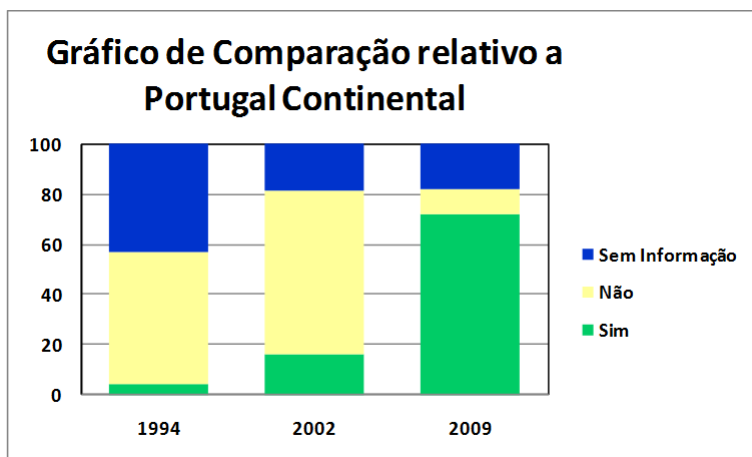
# Public Policies for Data Management and Exploration Tools

- *Early adopter*
  - 80's
- Innovation
- Initiative
- Key domains
  - Geographic Information Systems (GIS)
  - Spatial Data Infrastructures (SDI)



# Geographic Information Systems

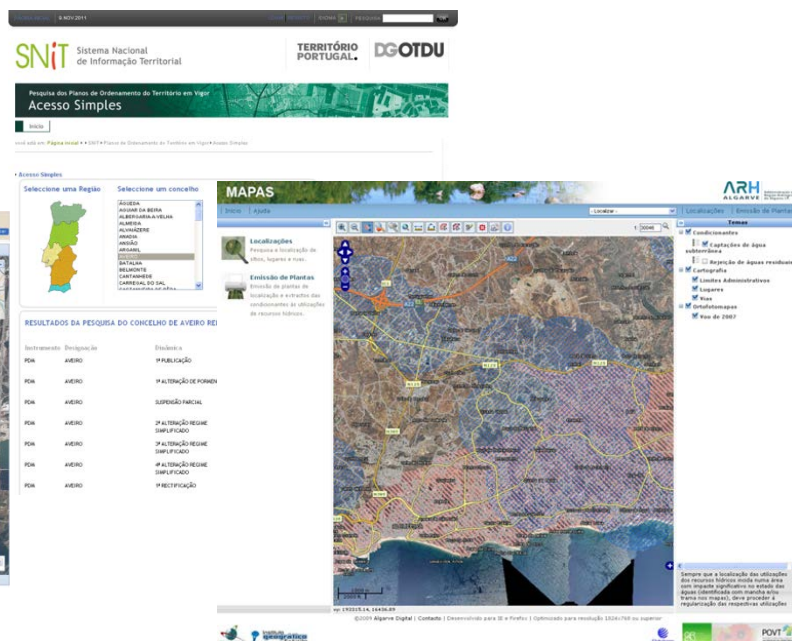
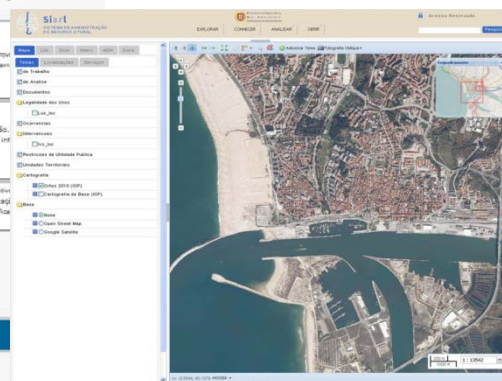
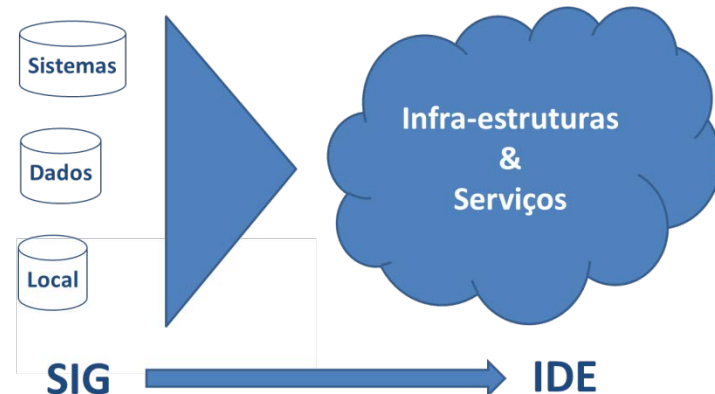
- Wide utilization
  - Municipalities
  - CIM
  - Regional Administration
  - Central Administration



Julião e Queirós, 2009

# Spatial Data Infrastructures

- Pioneer country:
  - 1990 – SNIG
  - 1995 – Internet



# Contributions for a Public Policy for Integrated Management of Spatial Data

- Formal
  - *Conselho Coordenador de Cartografia*
    - Coordination council of public bodies legally mandated for cartographic production
  - *Conselho de Orientação do SNIG*
    - Strategic Coordination
    - Wide scope
- Operational
  - Data sets, Services and SDI
  - Public bodies, Public participation and Business Models



## Data sets, Services and SDI

- INSPIRE
- *Cloud computing*
- Spatial data Infrastructures
- Static representation *versus* dynamic
  - Object catalogue
  - Users needs and specs
- “Old cartography” is dead, long live the “new geography”!

# Public bodies, Public participation and Business Models

- **Building and exploring a infrastructure that increases territorial knowledge is mandatory for development**
  - “Insufficient technical databases for spatial planning, namely in what considers resources spatial data, certified cartography, cadastral data and online actual plans” (MAOTDR, 2007: 107)
  - Ferrão (2011:115) refers that “more and better information, knowledge, organization and innovative support technologies” are key components that a modern spatial planning public policy demands
  - Inline with the perspective that “good territorial management needs availability and wide dissemination of information and updated knowledge of existing resources, dynamics and perspectives for national, regional e local scales” (MAOTDR, 2007: 221)

# Public bodies, Public participation and Business Models

- There is no sense for the inexistence of:
  - a better **articulation of public investment**, assuring the existence of high quality strategic national geographic data sets and their continuous actualization
  - a higher **decentralization of the productive process** directly involving municipalities in the creation of basic vector geographic data
  - improved **access to strategic geographic datasets and services** that promotes their effective use by public administration, added value creation and support to research and teaching
  - a better **integration of citizens public participation**



# Public bodies, Public participation and Business Models

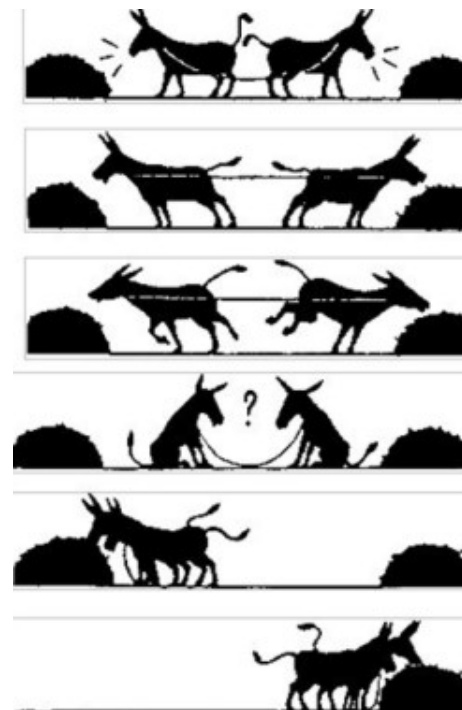
- State role:
  - Organization
  - Collaborative environment
  - Key themes (INSPIRE Directive):
    - Coordinate reference systems
    - Geographical grid systems
    - Administrative units
    - Addresses
    - Geographical names
    - Cadastral parcels
    - Orthoimagery
    - Elevation
    - Hidrography
    - Transport networks
    - Land use
    - ...

# Public bodies, Public participation and Business Models

- New paradigms
  - Volunteered Geographic Information (VGI) | Goodchild (2007)
- New business models
  - Commercial and Cost-recovery decline
  - Directive 2003/98/CE – *Public Sector Information*
  - Directive 2007/2/CE – INSPIRE
  - UK Location Strategy 2008
  - DK e-Government Strategy 2013-2016
  - IS Open Geographic Data 2013
- <http://www.dados.gov.pt>
  - Geographic data missing

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