

INFRA-ESTRUTURAS DE DADOS ESPACIAIS E A DIRECTIVA INSPIRE



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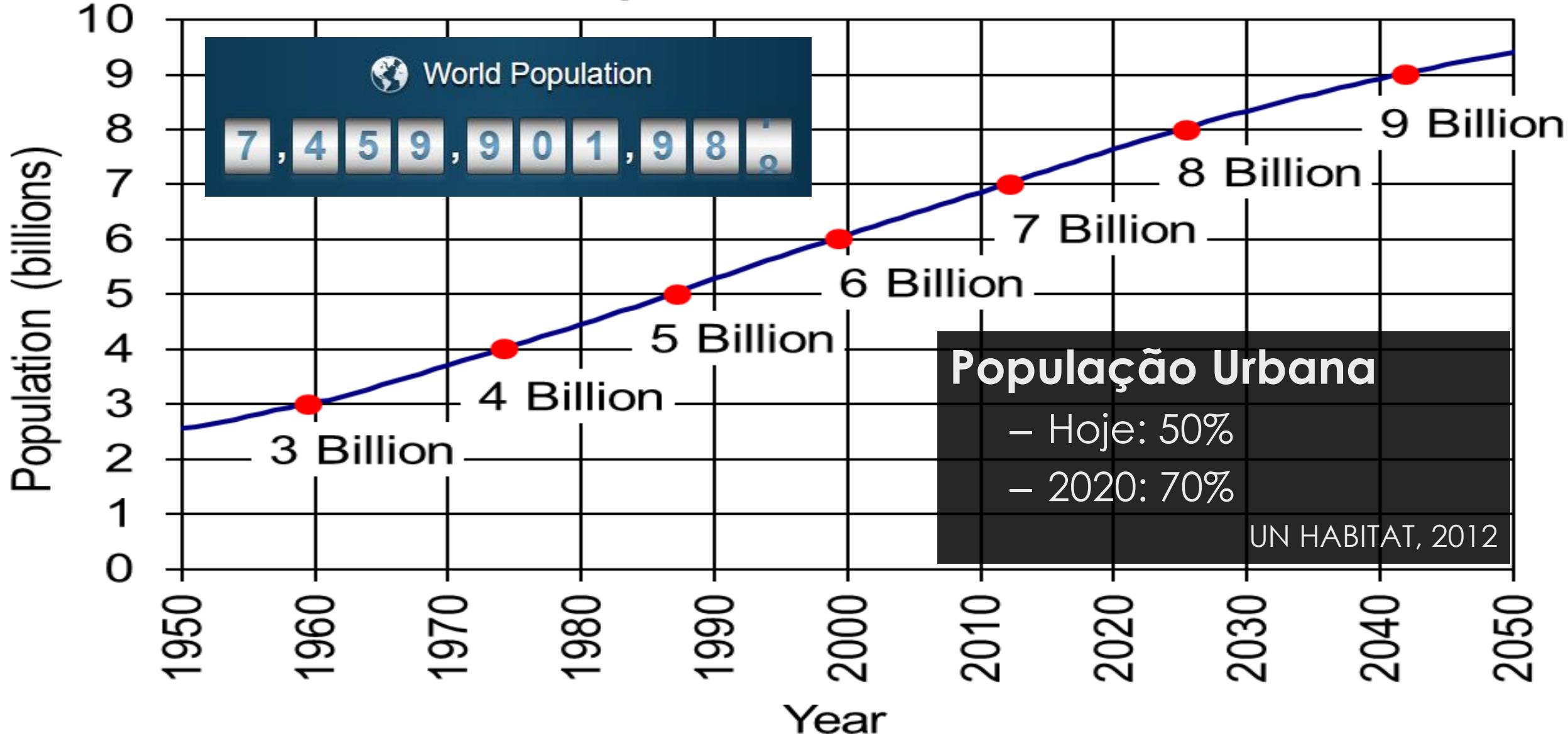
I Simpósio Brasileiro de Infraestrutura de Dados Espaciais:
10 anos da INDE
Rio de Janeiro, Novembro 2018

- 1 CONTEXTO**
- 2 INFRA-ESTRUTURAS DE DADOS ESPACIAIS**
- 3 INSPIRE**
- 4 SOLUÇÕES**
- 5 NOTAS FINAIS**

1

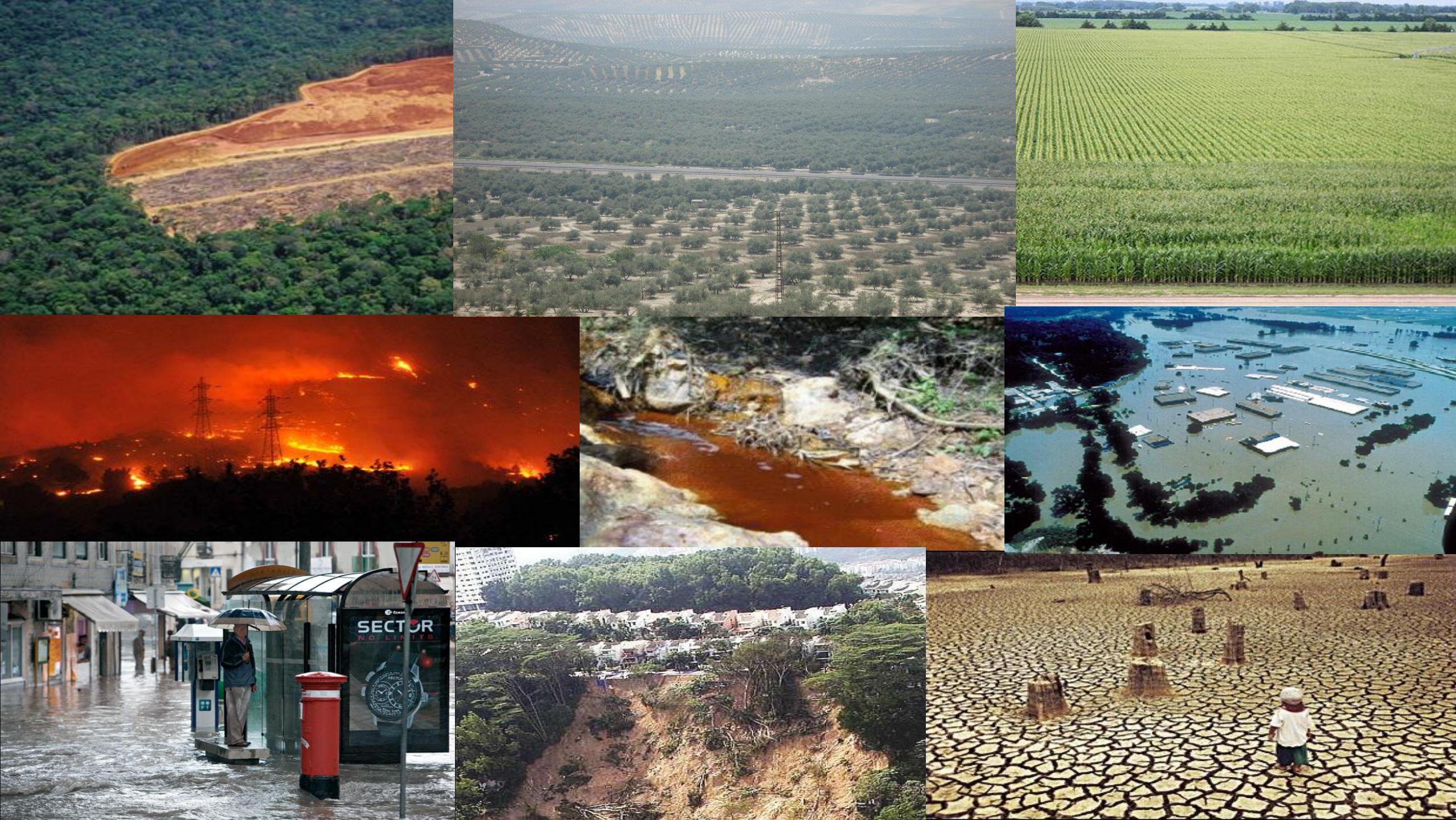
CONTEXTO

World Population: 1950-2050



Source: U.S. Census Bureau, International Data Base, July 2015 Update.

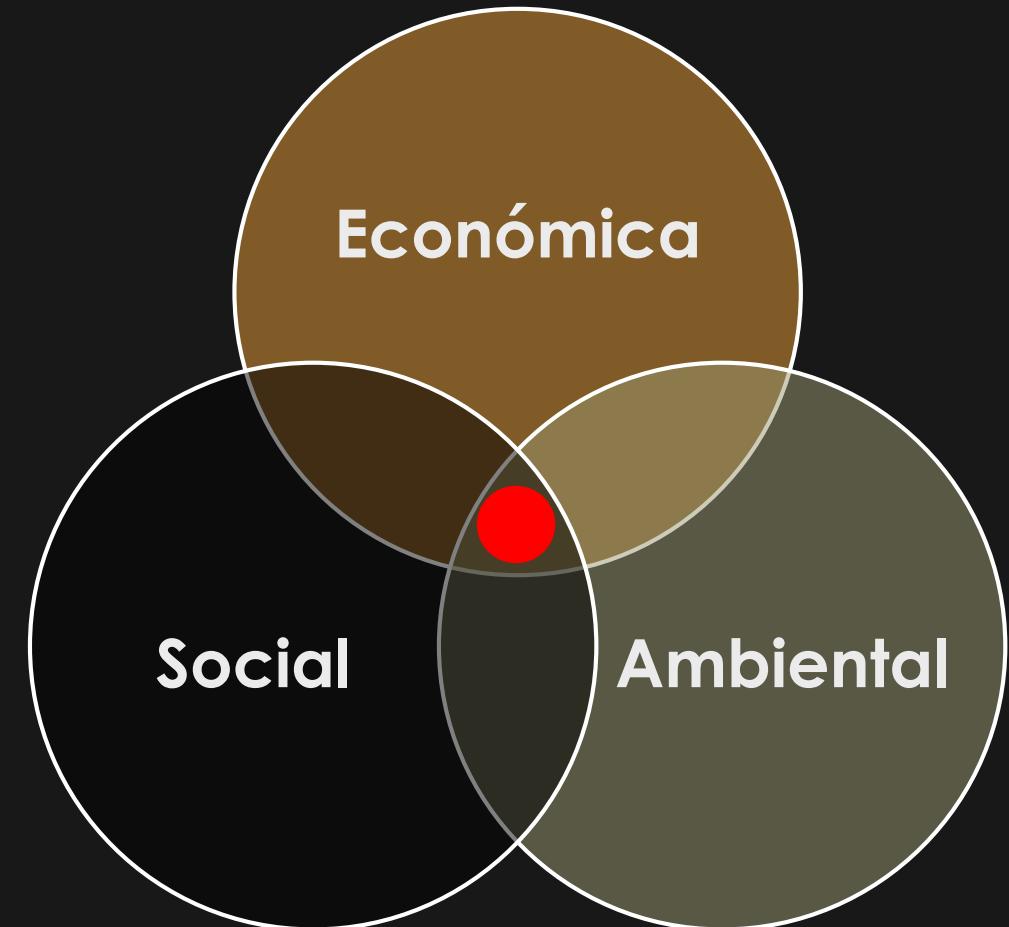




1 CONTEXTO

Sustentabilidade

- Conceito chave
- Visão integrada do território

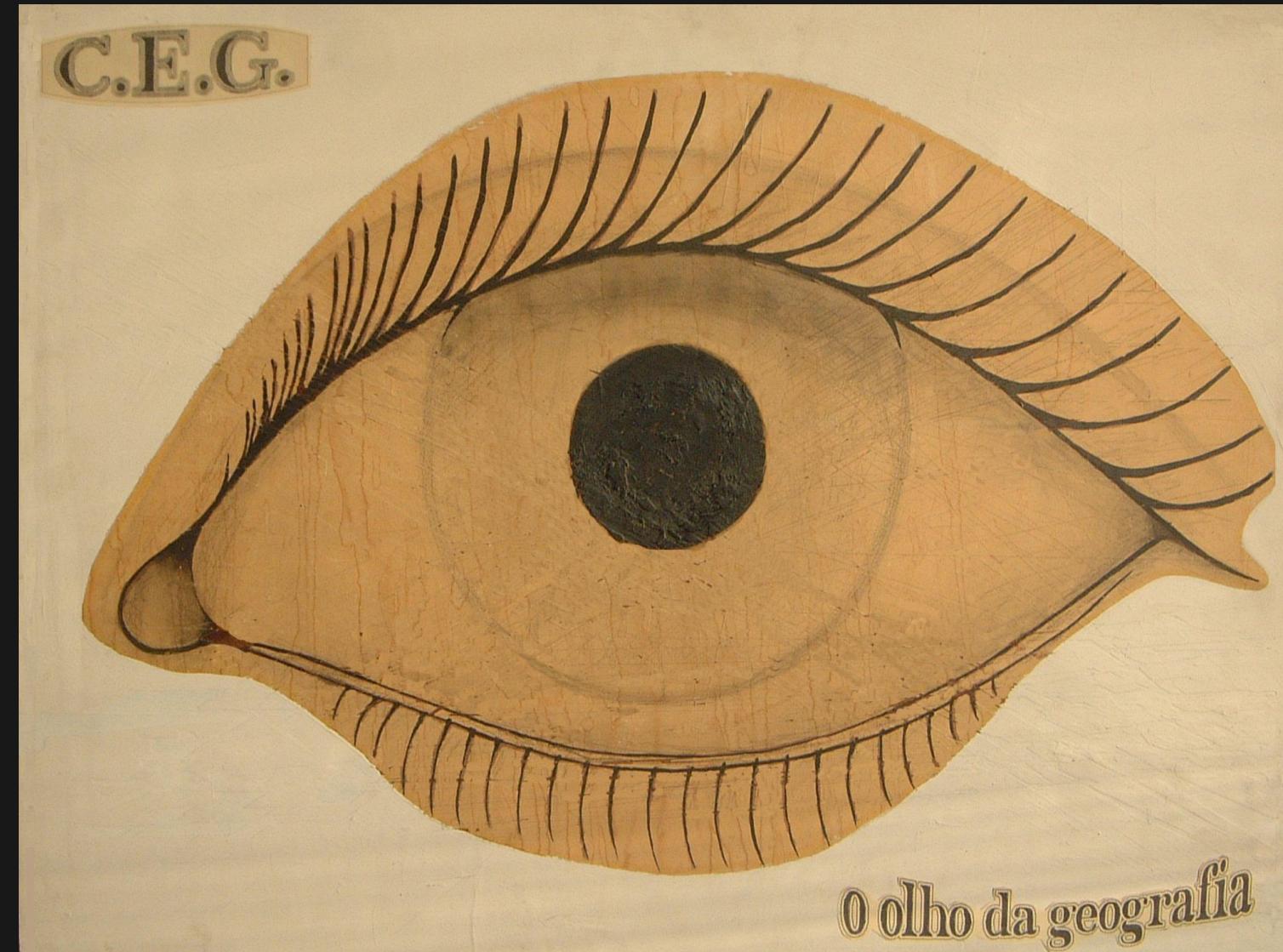


1 CONTEXTO

Dados fiáveis

Sistemas fiáveis

- Aquisição
- Gestão
- Análise
- Visualização
- Disseminação





File Edit View Add Tools Help

Fly To Local Search Directions

e.g. 37.407229, -122.107162

Search

► My Places

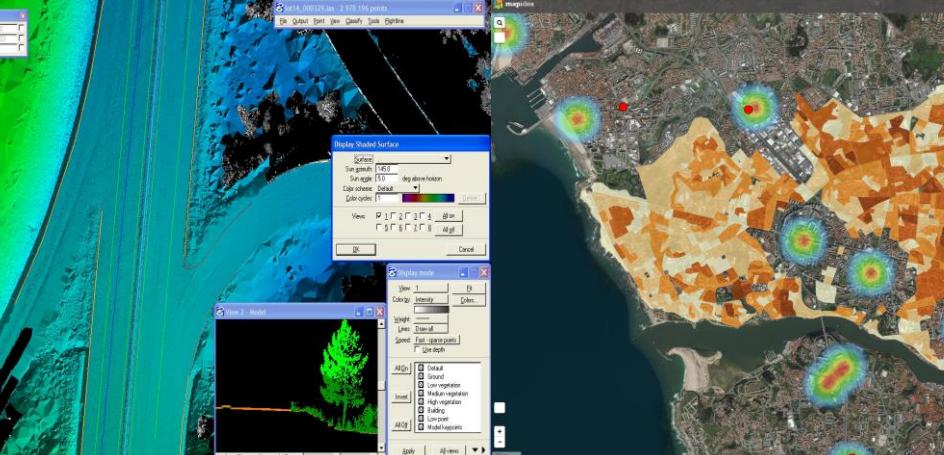
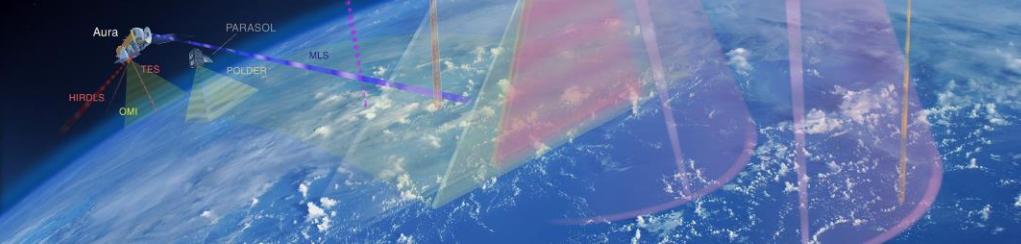
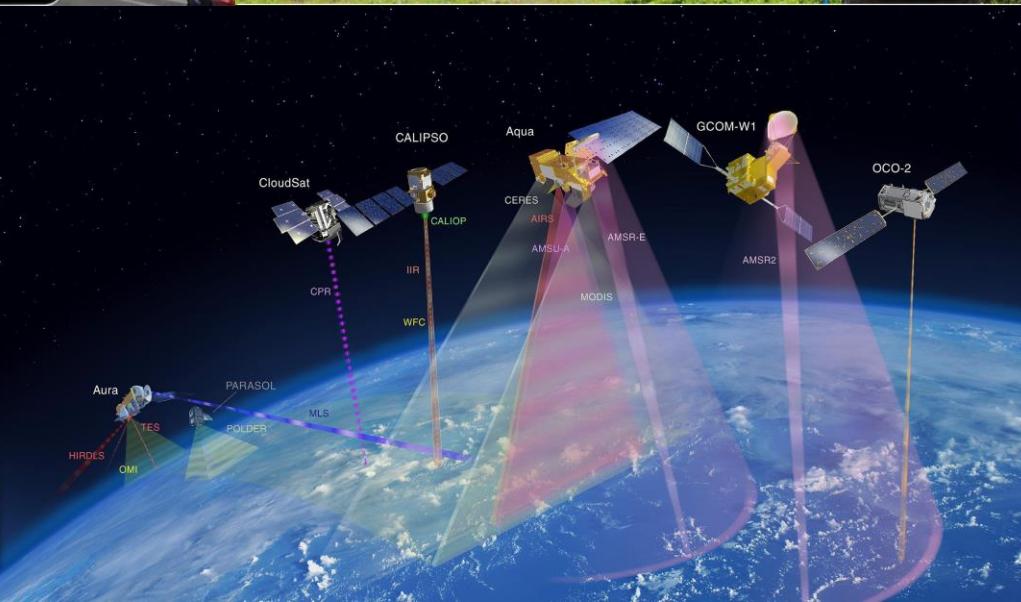
- ▶ Chicago
- ▶ Traffic Cameras
 - Ledo's Pizza
 - Superdawg
 - ★ Buckingham Fountain
- ▶ Sports and Entertainment
 - Sears Tower
- ▶ Museum of Science and Indust
 - Midway Airport
 - Belt Railway Company of Chica



► Layers

- Layers
- terrain
 - borders
 - roads
 - Populated Places
 - Geographic Features
 - Keyhole Community BBS
 - Railroads
 - Water
 - Earthquakes
 - Volcanoes





1 OPEN STREET MAP

The screenshot shows a detailed street-level map of Aveiro, Portugal, on the OpenStreetMap platform. The map includes various roads, buildings, parks, and landmarks. Key features labeled include the Estuário do Rio Vouga, Rua da Praça, EN 235, Parque de Santo António, Parque Infante Dom Pedro, Universidade de Aveiro, and several streets like Avenida 5 de Outubro, Rua da Meia Praia, and Rua das Pombas. The map also shows the Ria de Aveiro and the Canal do Cojo. A legend at the bottom left indicates distances of 100 m and 500 ft. The top navigation bar includes links for 'Editar', 'Histórico', 'Exportar', 'Trilhos GPS', 'Diários de Utilizadores', 'Direitos de Autor', 'Ajuda', 'Sobre Nós', 'Iniciar Sessão', and 'Criar Conta'.

Put your community on The Map!

A project called OpenStreetMap is making a free street-level map of the entire world. Volunteers from this area have already begun mapping the roads and rivers in your community, but now they need your help to add details of street names and local amenities such as restaurants, hospitals and cinemas.



So why not just use Google Maps (or the like)?

There are many places on the Internet where you can look at maps without charge, but that's all they usually allow you to do - you cannot re-use the map, modify it, publish it on your own web site or print it in a leaflet. To do any of that, you would have to obtain a license, which usually costs money. And if you spot a mistake in your area, the process to get it corrected is lengthy.

OpenStreetMap is different in that the map data is available to everyone, for whatever purpose they want (it's "open" or "free-as-in-freedom"). Anyone can put in the locations and names of roads, footpaths, railway stations, or whatever else is important to them. And people can immediately respond to changes on the ground, so the data is the most up-to-date. Maps generated from the data are available to browse on the Internet (just like other online maps), but they can also be downloaded and used for any purpose. And if you don't like the way the provided maps look, you can download the data and create your map, your way.

So what do I need to participate in OpenStreetMap?

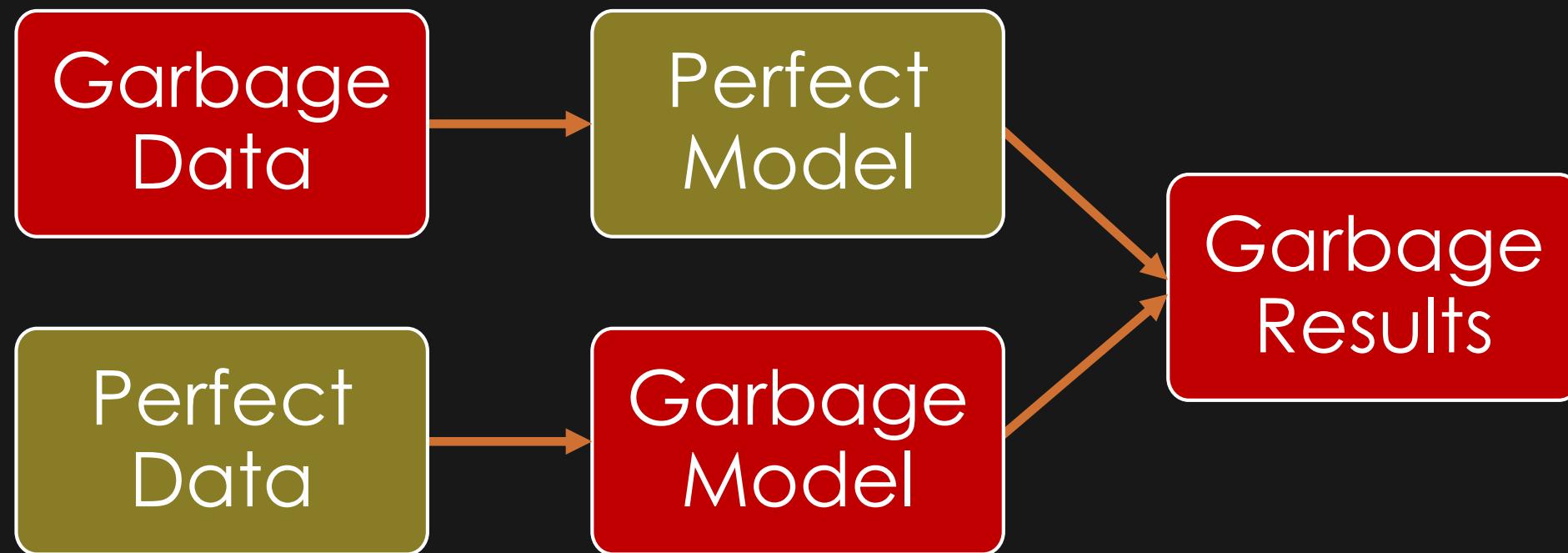
Tools such as GPS receivers and digital cameras are useful for advanced mapping, but simply having access to the Internet will allow you to contribute by checking/editing the maps and to add that all-important local information.

The only real requirement is that the information is "first hand" from observation or local knowledge and that it is not copied from restricted sources (such as printed maps or online services).

This area is currently being mapped!
Visit <http://www.OpenStreetMap.org> to find out more



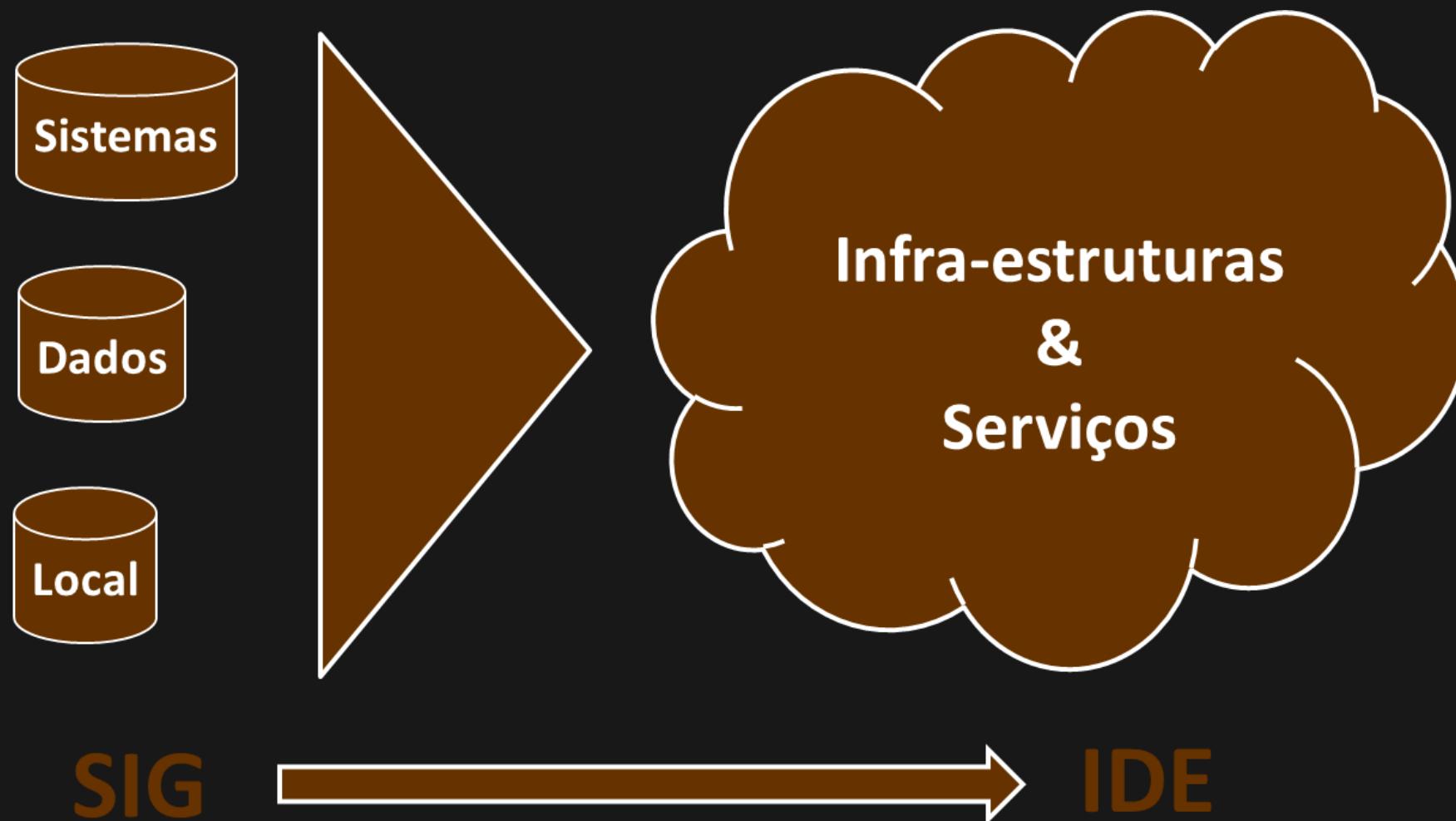
① GARBAGE IN, GARBAGE OUT



2

INFRA-ESTRUTURAS DE DADOS ESPACIAIS

2 NOVOS PARADIGMAS



2 DISPONIBILIDADE, ACESSIBILIDADE E QUALIDADE



2 INFRA-ESTRUTURAS DE DADOS ESPACIAIS

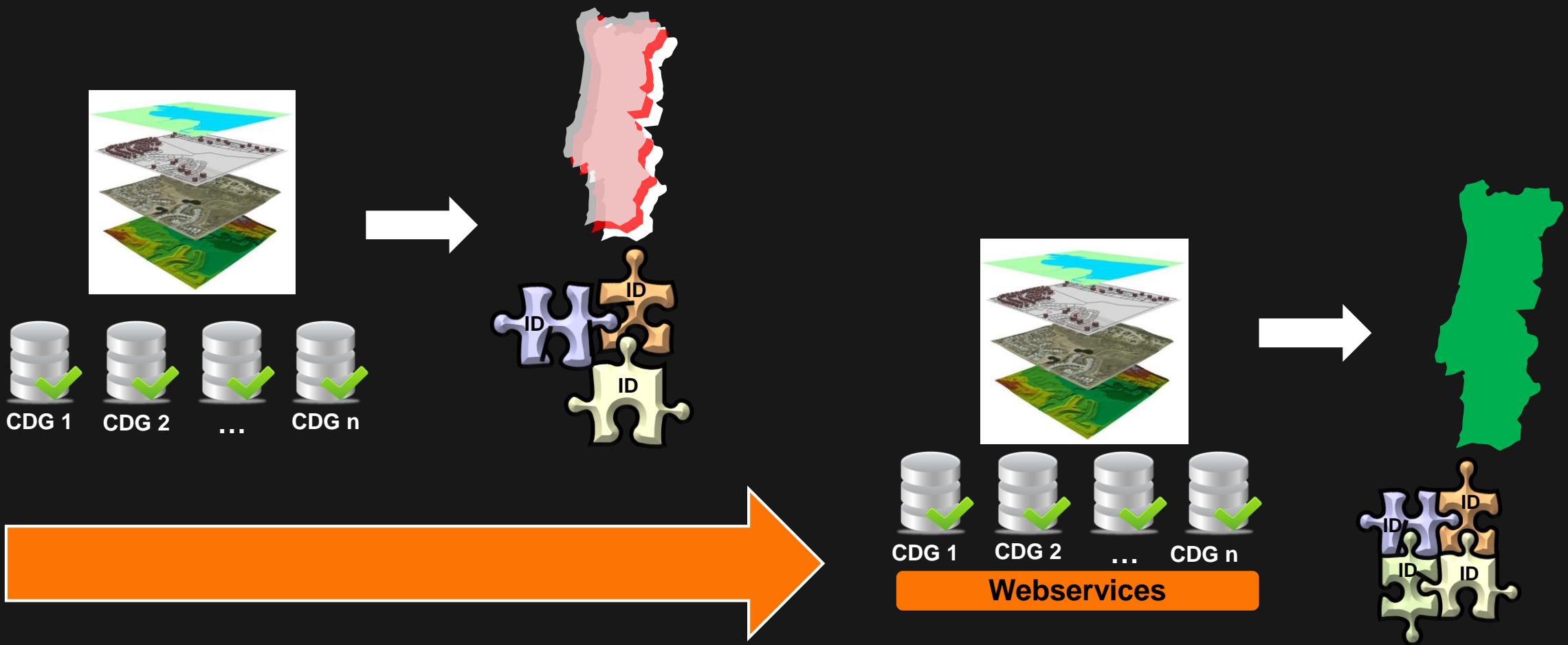
The term “Spatial Data Infrastructure” (SDI) is often used to denote the relevant base collection of **technologies**, **policies** and **institutional arrangements** that facilitate the **availability of and access to spatial data**.

GSDI (2004) The SDI Cookbook V.2

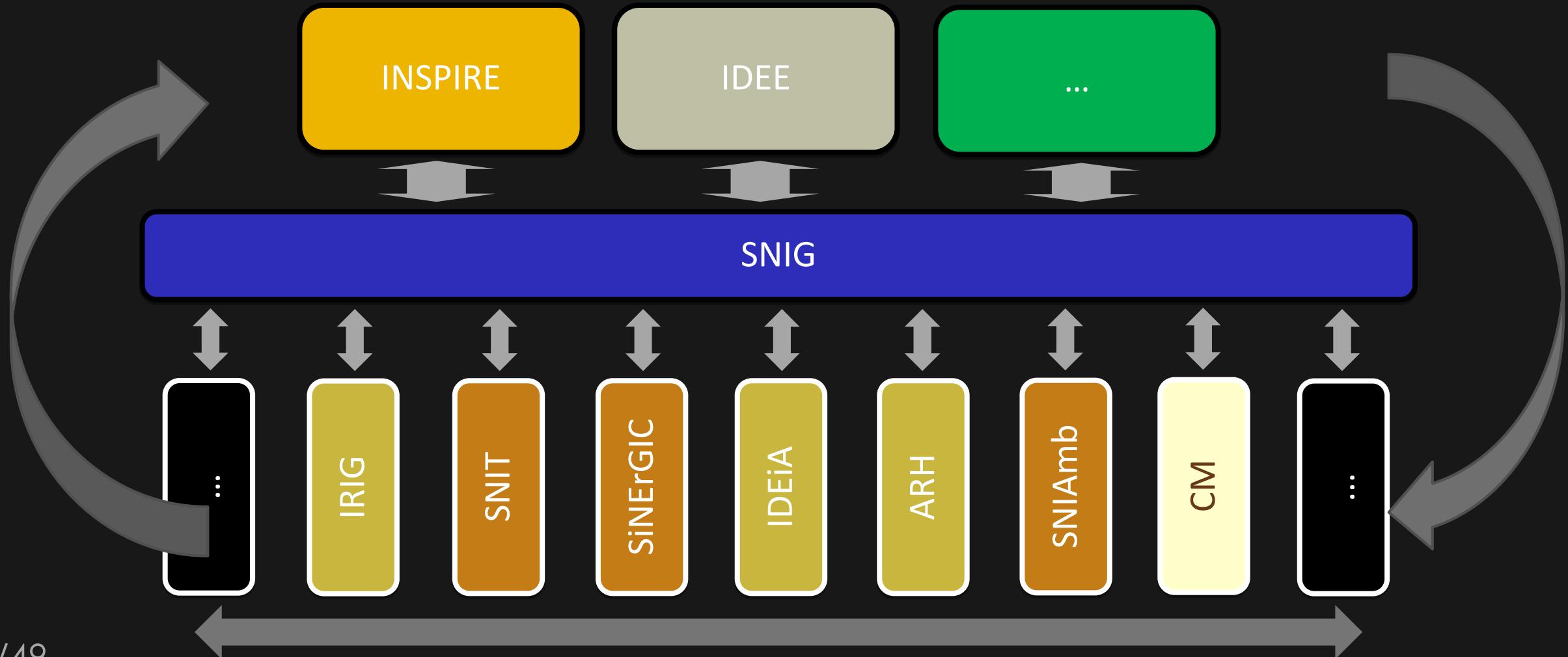
Os dados não devem somente existir !!

- onde estão?
- são adequados aos objectivos?
- podem ser integrados?
- condições de acesso?

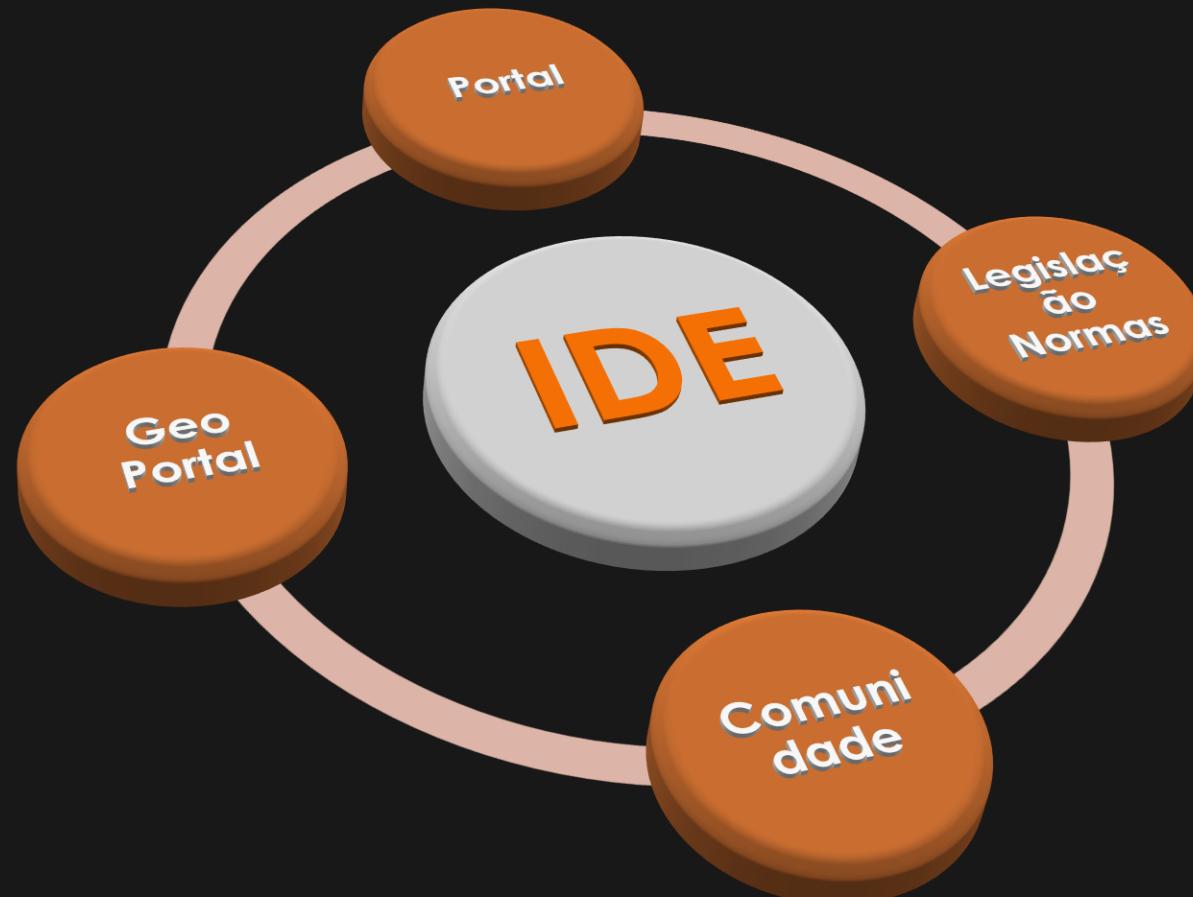
② INTEGRAÇÃO



2 INFRA-ESTRUTURAS DE DADOS ESPACIAIS



2 COMPONENTES DAS IDE

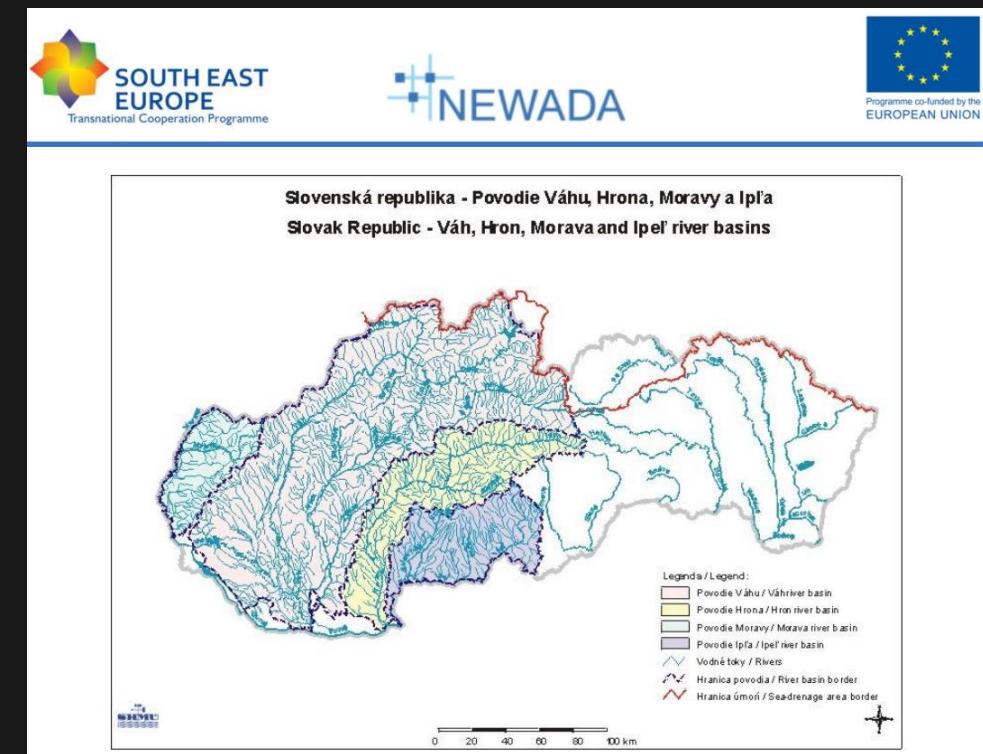


3

INSPIRE

③ INFRASTRUCTURE FOR SPATIAL INFORMATION IN EUROPE – **DIRECTIVA INSPIRE**

- Iniciativa lançada no final de 2001
- Informação geográfica fundamental de qualidade e normalizada
- Formulação, implementação, monitorização e avaliação das políticas comunitárias
- Ambiente + Ciência + Economia + ...



<http://inspire.jrc.ec.europa.eu>

3 DIRECTIVA INSPIRE

- Directiva 2007/2/EC do Parlamento Europeu e do Conselho de 207/03/14
- Em vigor desde 15 de Maio de 2007
- Abrange:
 - 27+1 países da União Europeia
 - 4 países EFTA
(Islândia, Liechtenstein, Noruega e Suíça)
 - 3 países observadores
(Macedónia, Sérvia e Turquia)

25.4.2007 PT Jornal Oficial da União Europeia L 108/1

I
(Actos adoptados em aplicação dos Tratados CE/Euroatom cuja publicação é obrigatória)

DIRECTIVAS

DIRECTIVA 2007/2/CE DO PARLAMENTO EUROPEU E DO CONSELHO
de 14 de Março de 2007
que estabelece uma infra-estrutura de informação geográfica na Comunidade Europeia (Inspire)

O PARLAMENTO EUROPEU E O CONSELHO DA UNIÃO EUROPEIA,

Tendo em conta o Tratado que institui a Comunidade Europeia, nomeadamente o n.º 1 do artigo 175.º,

Tendo em conta a proposta da Comissão,

Tendo em conta o parecer do Comité Económico e Social Europeu (¹),

Após consulta ao Comité das Regiões,

Deliberando nos termos do artigo 251.º do Tratado, tendo em conta o projecto comum aprovado pelo Comité de Conciliação em 17 de Janeiro de 2007 (²),

Considerando o seguinte:

(1) A política da Comunidade no domínio do ambiente tem por objectivo atingir um nível de protecção elevado, tendo em conta a diversidade das situações existentes nas diferentes regiões da Comunidade. Além disso, é necessária informação, incluindo informação geográfica, para a definição e execução dessa política e de outras políticas comunitárias que devam integrar as exigências em matéria de protecção do ambiente em consonância com o artigo 6.º do Tratado. Para conseguir essa integração, é necessário estabelecer uma certa coordenação entre utilizadores e fornecedores da informação, a fim de que a informação e os conhecimentos provenientes de diferentes sectores possam ser combinados.

(¹) JO C 221 de 8.9.2005, p. 33.
(²) Parecer do Parlamento Europeu de 7 de Junho de 2005 (JO C 124 E de 25.5.2006, p. 116), parecer comum do Conselho de 23 de Janeiro de 2006 (JO C 126 E de 30.5.2006, p. 16) e posição do Parlamento Europeu de 12 de Março de 2007 (JO C 127 E de 20.3.2007, não publicada em Jornal Oficial). Decisão do Conselho de 29 de Janeiro de 2007 e resolução legislativa do Parlamento Europeu de 13 de Fevereiro de 2007 (ambas não publicadas em Jornal Oficial).

(3) Os problemas de disponibilidade, qualidade, organização, acessibilidade e partilha das informações geográficas são comuns a um grande número de políticas e de áreas temáticas no domínio da informação e são sentidos aos vários níveis da autoridade pública. Para os resolver são necessárias medidas que incidam sobre o intercâmbio, a partilha, o acesso e a utilização de dados geográficos interoperáveis e de serviços de dados geográficos aos vários níveis da autoridade pública, e de diferentes sectores. Deverá, pois, ser criada uma infra-estrutura de informação geográfica na Comunidade.

(4) A infra-estrutura de informação geográfica na Comunidade Europeia (Inspire) deverá facilitar a tomada de decisão respeitante a políticas e actividades susceptíveis de ter um impacto directo ou indirecto no ambiente.

(5) A Inspire deverá basear-se nas infra-estruturas de informação geográfica criadas pelos Estados-Membros e tornadas compatíveis com regras comuns de aplicação e suplementadas por medidas ao nível comunitário. Essas medidas deverão assegurar que as infra-estruturas de informação geográfica criadas pelos Estados-Membros sejam compatíveis e utilizáveis num contexto comunitário e transfronteiriço.

(¹) JO L 242 de 10.9.2002, p. 1.

<http://inspire.jrc.ec.europa.eu>

3 INSPIRE – PRINCÍPIOS

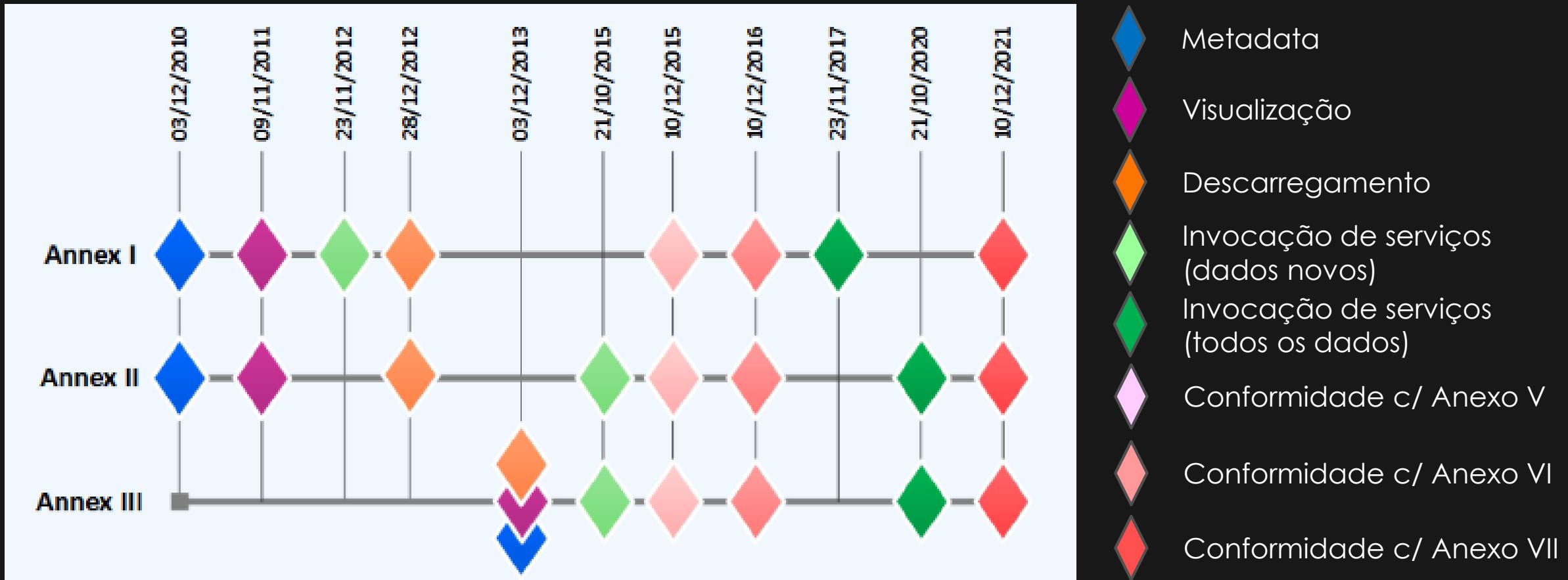
1. **Documentar** a informação geográfica existente
2. Contribuir para a definição de **padrões** (*standards*) e harmonização da informação existente
3. **Criar** nova informação multi-sectorial
4. Estabelecer **serviços em rede** para publicar, descobrir, avaliar, visualizar e aceder a informação geográfica
5. Estabelecer um quadro de **licenciamento** para partilhar informação entre organismos públicos

3 INSPIRE – TEMAS

Anexo I	Anexo II	Anexo III	
Sistemas de Referência	Altimetria	Unidades Estatísticas	Zonas de Risco Natural
Quadrículas Geográficas	Ocupação do Solo	Edifícios	Condições Atmosféricas
Toponímia	Ortoimagens	Solo	Características Geometeorológicas
Unidades Administrativas	Geologia	Uso do Solo	Características Oceanográficas
Endereços		Saúde Humana e Segurança	Regiões Marinhas
Cadastro		Serviços de utilidade Pública e do Estado	Regiões Biogeográficas
Redes Transporte		Instalações de Monitorização do Ambiente	Habitats e Biótopos
Hidrografia		Instalações Industriais e de Produção	Distribuição de Espécies
Sítios Protegidos		Instalações Agrícolas e Aquícolas	Recursos Energéticos
		Distribuição da População – Demografia	Recursos Minerais
		Zonas de Gestão, Restrição, Regulamentação e Unidades de Referência	



3 INSPIRE – CALENDÁRIO



3 INSPIRE – GOVERNANÇA E GESTÃO

- INSPIRE Coordination Team (CT)
 - DG Environment – Policy
 - Joint Research Centre – Technical
- **INSPIRE Committee (IC)**
- National Contact Points (NCP)



3 INSPIRE – GOVERNANÇA E GESTÃO

- INPIRE Maintenance and Implementation Group
 - **MIG** – Policy
 - **MIG** – Tech
 - Peritos
- INPIRE stakeholders
 - Spatial Data Interest Communities (SDIC)
 - Legally Mandated Organisation (LMO)

3 INSPIRE – DADOS & SERVIÇOS

 INSPIRE GEOPORTAL
Enhancing access to European spatial data

European Commission > INSPIRE > Geoportal > INSPIRE Thematic Viewer

Home Priority Data Sets Viewer INSPIRE Thematic Viewer Harvesting status Find out more about

INSPIRE Data Sets - EU & EFTA Country overview



Hover over a country

Show: Downloadable Viewable

INSPIRE Geoportal Data Set Statistics

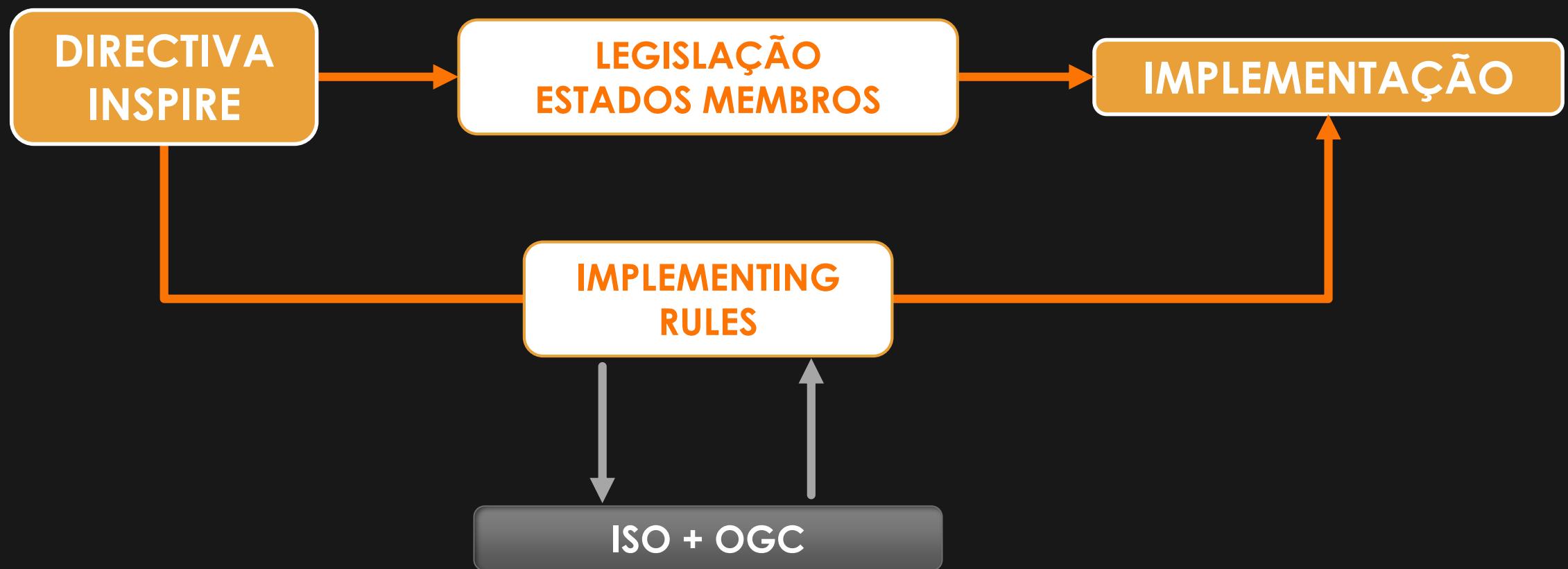
142137 Metadata records **5937** Downloadable Data Sets

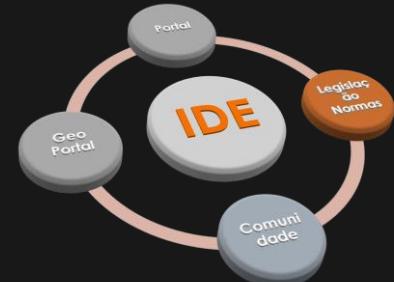
Leaflet | Credits: © OpenStreetMap contributors | EC-GISCO, © EuroGeographics for the administrative boundaries (disclaimer)

Austria	738  537  570
Belgium	527  136  389
Bulgaria	29  0  0
Croatia	122  3  4
Cyprus	42  31  40
Czech Republic	151  13  90
Denmark	190  13  9
Estonia	73  12  23
Finland	591  29  45
France	36987  1682  12291
Germany	26783  2770  6768
Greece	41  1  34
Hungary	108  0  1
Iceland	141  7  0
Ireland	54  4  0
Italy	20154  0  387
Latvia	140  0  4
Liechtenstein	70  11  15
Lithuania	2  0  0
Luxembourg	236  113  167
Malta	158  129  151
Netherlands	213  73  130
Norway	204  2  4
Poland	31619  52  17
Portugal	852  84  204
Romania	115  12  7
Slovakia	220  5  12
Slovenia	95  6  8
Spain	218  134  145
Sweden	278  14  148
Switzerland	200  2  4
United Kingdom	20786  62  315



3 INSPIRE – LEGISLAÇÃO E NORMAS





3 INSPIRE – LEGISLAÇÃO E NORMAS

Legislation

- [Commission Regulation \(EU\) No 1312/2014 of 10 December 2014 amending Regulation \(EU\) No 1089/2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data services 11.12.2014](#)
- [COMMISSION REGULATION \(EU\) No 1253/2013 of 21 October 2013 amending Regulation \(EU\) No 1089/2010 implementing Directive 2007/2/EC as regards interoperability of spatial data sets and services 10.12.2013](#)
- [COMMISSION REGULATION \(EU\) No 102/2011 of 4 February 2011 amending Regulation \(EU\) No 1089/2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services 05.02.2011](#)
- [COMMISSION REGULATION \(EU\) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services 08.12.2010](#)

Technical Guidelines Annex I

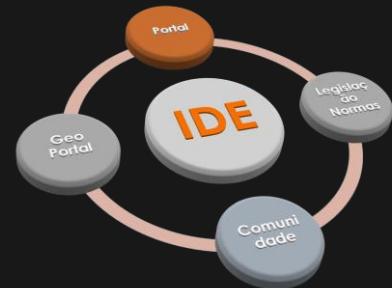
- [INSPIRE Data Specification on Addresses – Technical Guidelines 3.1 17.04.2014](#)
- [INSPIRE Data Specification on Administrative Units – Technical Guidelines 3.1 17.04.2014](#)
- [INSPIRE Data Specification on Cadastral Parcels – Technical Guidelines 3.1 17.04.2014](#)
- [INSPIRE Data Specification on Coordinate Reference Systems – Technical Guidelines 3.2 17.04.2014](#)
- [INSPIRE Data Specification on Geographical Grid Systems – Technical Guidelines 3.1 17.04.2014](#)
- [INSPIRE Data Specification on Geographical Names – Technical Guidelines 3.1 17.04.2014](#)
- [INSPIRE Data Specification on Hydrography – Technical Guidelines 3.1 17.04.2014](#)
- [INSPIRE Data Specification on Protected Sites – Technical Guidelines 3.2 17.04.2014](#)
- [INSPIRE Data Specification on Transport Networks – Technical Guidelines 3.2 17.04.2014](#)

Technical Guidelines Annex II & III

- [INSPIRE Data Specifications – All v3.0 Technical Guidelines for Annexes II & III 13.12.2013](#)
- [INSPIRE Data Specification on Agricultural and Aquaculture Facilities – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Area Management/Restriction/Regulation Zones and Reporting Units – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Atmospheric Conditions and Meteorological Geographical Features – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Biogeographical Regions – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Buildings – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Elevation – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Energy Resources – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Environmental Monitoring Facilities – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Geology – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Habitats and Biotopes – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Human Health and Safety – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Land Cover – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Land Use – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Mineral Resources – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Natural Risk Zones – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Oceanographic geographical features – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Orthoimagery – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Population Distribution – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Production and Industrial Facilities – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Sea Regions – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Soil – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Species Distribution – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Statistical Units – Technical Guidelines 10.12.2013](#)
- [INSPIRE Data Specification on Utility and Government Services – Technical Guidelines 10.12.2013](#)

Framework Documents

- [Guidelines for the encoding of spatial data 08.04.2014](#)
- [Guidelines for the use of Observations & Measurements and Sensor Web Enablement-related standards in INSPIRE Annex II and III data specification development 08.04.2014](#)
- [INSPIRE Generic Conceptual Model 08.04.2014](#)
- [INSPIRE Data Specifications – Base Models – Activity Complex 05.04.2013](#)
- [INSPIRE Data Specifications – Base Models – Coverage Types 05.04.2013](#)
- [INSPIRE Data Specifications – Base Models – Generic Network Model 05.04.2013](#)



3 INSPIRE – Portal

INSPIRE KNOWLEDGE BASE
Infrastructure for spatial information in Europe

European Commission > INSPIRE

Home Learn Implement Participate Use Toolkit

INSPIRE Video

The INSPIRE Directive: a brief desc... Ver mais tarde Partilhar

Latest News

17/10/2018 Deadline extended for Survey on INSPIRE Data Sharing
20/09/2018 New INSPIRE Geoportal launched
24/07/2018 Extended mandates for the control body and submitting organisations of the INSPIRE registers and register federation

All News

INSPIRE Conference

INSPIRE CONFERENCE 2018

#INSPIRE_EU2018 Antwerp 18-21 September

Events

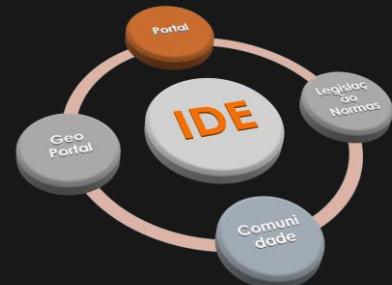
27/11/2018 EG/EuroSDR Workshop "Use of INSPIRE Data: Past experiences and scenarios for the future"
18/09/2018 INSPIRE Conference 2018
06/06/2018 INSPIRE Good Practice: GeoDCAT-AP

All Events

Tweets

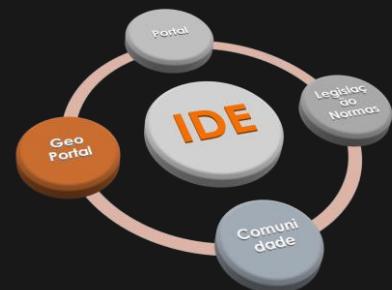
INSPIRE_EU @INSPIRE_EU 1 day 4 hours ago Thanks @kekei_sg for presenting our @EU_ScienceHub work on API solutions for Digital Government #APIs4DGov... <https://t.co/Rb2rVEO2Vc>

INSPIRE_EU @INSPIRE_EU 1 day 8 hours ago RT @KleemannMarc: @OpenNRW Top! Endlich kann man #opendata und #Geodateninfrastrukturen einfach verbinden. Es profitieren beide Seite... <https://t.co/ymncKbJSFH>



3 INSPIRE – Portal





3 INSPIRE – Geoportal

- Versão anterior
- Baseada em catálogo básico e viewer

The screenshot shows the INSPIRE GEOPORTAL interface. The top navigation bar includes links for Contact, Search, Legal notice, and English (en). The main title is "INSPIRE GEOPORTAL: Enhancing access to European spatial data". Below the title, there's a search bar with options for datasets, series, services, layers, and download service dataset. A "Find a place in:" dropdown set to "Europe" is shown, along with a map of Europe. The map features a large red shaded area covering most of Central Europe. On the left, there's a legend and a scale bar indicating 1000 km and 1000 mi. The right side of the interface contains a sidebar with sections for Active Search Criteria (set to "None applied"), Active Search Filters (set to "None applied"), and Refine search by (with options for Origin, Metadata Language, Spatial Data Theme, Topic Category, and Service Type). A list of countries is also present on the right.

INSPIRE GEOPORTAL
Enhancing access to European spatial data

EUROPEAN COMMISSION > INSPIRE > INSPIRE GEOPORTAL > Discovery / Viewer

Contact | Search | Legal notice | English (en)

Find a place in: Europe

Powered by GeoNames

Search: Enter your query in any language of the European Union

datasets series services layers download service dataset

Advanced Search

What's new

Data sources and Credits

Active Layers: 0

1000 km 1000 mi

Active Search Criteria

Bounding Box Restrictions

None applied.

Active Search Filters

None applied

Refine search by

► Origin

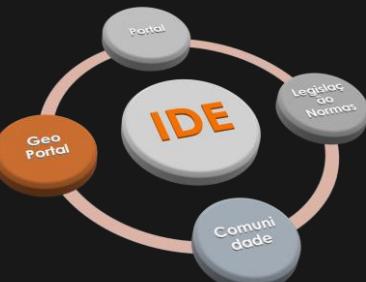
► Metadata Language

► Spatial Data Theme

► Topic Category

► Service Type

Austria Belgium Bulgaria
Croatia Czech Republic
Denmark Estonia Finland
France Germany
Greece Hungary Iceland
Ireland Italy Latvia
Liechtenstein Lithuania
Luxembourg Malta
Netherlands Norway
Poland Portugal
Romania Slovakia Slovenia
Spain Sweden
United Kingdom Addresses
Administrative Units
Agricultural and Aquaculture Facilities
Area management/restriction/regulation zones and reporting units
Atmospheric Conditions
Buildings Cadastral Parcels
Coordinate Reference Systems
Elevation Energy Resources
Environmental Monitoring Facilities



3 INSPIRE – Geoportal

Priority Data Sets Viewer

Credits: Map: data: Google | Map_style: snazzymap | Icon: Nick Roach

The application displays the availability and provides access to the selected priority data sets [1](#) used for environmental reporting. It allows filtering by environmental domain, environmental legislation and country.

[Browse Priority Data Sets](#)

INSPIRE Thematic Viewer

Credits: Map: data: Google | Map_style: snazzymap | Icon: INSPIRE

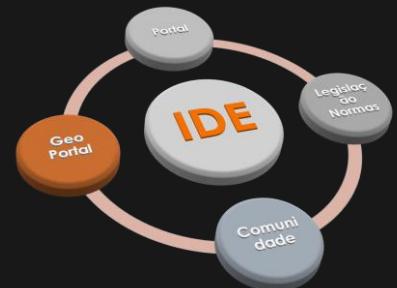
The application displays the availability and provides access to all EU MS data sets falling under the scope of INSPIRE Directive filtered by data themes and countries (i.e. Annex I, II and III).

[Browse INSPIRE Thematic Data Sets](#)

INSPIRE Reference Validator

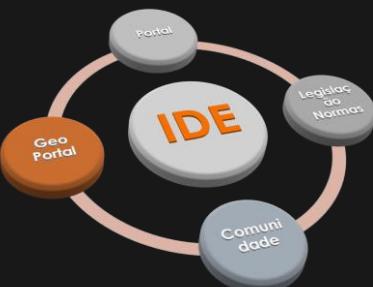
The validator application is to help data providers, solution providers and national coordinators to check whether their data sets, network services and metadata meet the requirements defined in the INSPIRE Technical Guidelines. The validation tests are based on the Abstract Test Suites agreed between Member States and the Commission in the INSPIRE Maintenance and Implementation Group.

[Go to INSPIRE validator](#)



3 INSPIRE – Geoportal

The screenshot shows the homepage of the INSPIRE GEOPORTAL. At the top left is the European Commission logo. To its right are links for 'About', 'Contact', and 'Legal Notice'. A language selector dropdown shows 'English (en)'. The main title 'INSPIRE GEOPORTAL' is in large blue capital letters, with the subtitle 'Enhancing access to European spatial data' below it. A breadcrumb navigation bar at the bottom left shows the path: 'European Commission > INSPIRE > Geoportal > INSPIRE Thematic Viewer'. Below this are several menu items: 'Home', 'Priority Data Sets Viewer', 'INSPIRE Thematic Viewer', 'Harvesting status', and 'Find out more about'.



3 INSPIRE – Geoportal

Annex I

Addresses

Def.: Location of properties based on address identifiers,...

[i](#) [2310](#) | [d 29](#) | [e 37](#)

Administrative units

Def.: Units of administration, dividing areas where Member...

[i](#) [1724](#) | [d 73](#) | [e 273](#)

Cadastral parcels

Def.: Areas defined by cadastral registers or equivalent.

[i](#) [12499](#) | [d 48](#) | [e 56](#)

Geographical grid systems

Def.: Harmonised multi...

[i](#) [169](#) | [d 4](#) | [e 21](#)

Geographical names

Def.: Names of areas, regions, localities, cities, suburbs...

[i](#) [1627](#) | [d 52](#) | [e 54](#)

Hydrography

Def.: Hydrographic elements, including marine areas and al...

[i](#) [2518](#) | [d 183](#) | [e 256](#)

Protected sites

Def.: Area designated or managed within a framework...

[i](#) [2464](#) | [d 293](#) | [e 474](#)

Coordinate reference systems

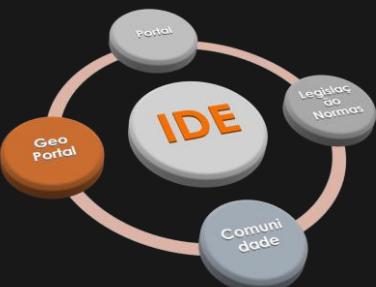
Def.: Systems for uniquely...

[i](#) [159](#) | [d 2](#) | [e 6](#)

Transport networks

Def.: Road, rail, air and water transport networks and rel...

[i](#) [3220](#) | [d 108](#) | [e 343](#)



3 INSPIRE – Geoportal

Environmental Domains

Explore Member States' priority data sets grouped by the following Environmental Domains.

 Air & Noise

Covers ambient air quality and cleaner air for Europe, industrial emissions...

i 269 | d 104 | e 160

 Industry

Covers industrial emissions and industrial accidents...

i 68 | d 21 | e 37

 Waste

Covers the landfill of waste, waste from extractive industries, soil...

i 83 | d 27 | e 59

 Nature & Biodiversity

Covers conservation of natural habitats and wild fauna and flora, wild birds...

i 234 | d 102 | e 133

 Water

Covers the Water Framework Directives, Urban waste water, bathing water...

i 548 | d 163 | e 316

 Marine

Covers the Marine Strategy Framework Directive, marine environmental policy...

i 56 | d 28 | e 38



3 INSPIRE – Community Forum

INSPIRE Community Forum

News Events Pages Clusters Discussions INSPIRE More » Log in / Register

About the INSPIRE Thematic Clusters Platform

Welcome to the INSPIRE Thematic Clusters Platform

The **INSPIRE Thematic Clusters Platform** is a European Commission initiative, linked to the INSPIRE Maintenance and Implementation Framework, with the objective of supporting INSPIRE implementation in the Member States.

All infrastructures, and INSPIRE is no exception, require maintenance and evolution. The experience gained during the development of the Technical Guidelines as well as lessons learned by implementing the infrastructure, **especially in thematic domains**, need to be shared to optimise performance of the infrastructure to meet policy objectives and to increase its usability within thematic domains. To aid this further evolution of INSPIRE and to help embed it in technical practices within a range of communities, **on-line collaboration thematic platforms** have been set up for sharing theme-specific experiences.

This platform that builds upon the relevant **INSPIRE Forum** content and software, **is a single entry point** for INSPIRE implementers and users to share experiences, best practices, raise questions and resolve issues **in their thematic domains**.

Each of the nine INSPIRE Thematic Clusters has a **facilitator** who will lead and participate in discussions, identify and facilitate sharing of best practice and key issues, identify relevant projects and software solutions.

Search

INSPIRE Website

INSPIRE GeoPortal

INTERACTIVE Data Specifications

INSPIRE CONFERENCE 2018

Thematic Clusters



3 INSPIRE – MID-TERM EVALUATION REPORT 2014

Table 4.8 Summary of investments for INSPIRE foreseen during the Extended Impact Assessment (million EUR, rounded)

INSPIRE policy measures	EU-level	National	Regional/local
Harmonisation	0.6	1.2	0.5
Metadata	0.2	1.9-2.2	33
Data Policy Framework		0.4	
Coordination and implementation, including outreach	1.1	9.6	44-88
Total investment per annum over 10 years (million EUR, rounded)	1.9	13	77-122

3 INSPIRE – MID-TERM EVALUATION REPORT 2014

Table 4.9 Summary of benefits for INSPIRE foreseen during the Extended Impact Assessment

Type of benefit	Estimates (million EUR per annum)
More efficient EIAs and SEAs	60-121
More efficient environmental monitoring and assessment	64
More cost-effective expenditure on environmental protection	192
More cost-effective implementation of the environmental <i>acquis</i>	32
More effective implementation of European projects	3-8
More effective expenditure for trans-European networks	90
Reduced duplication in data collection	25-160
Improved delivery of risk prevention policies	77-256
Improved delivery of health and environment policies	224
Total (in EUR million per annum)	770-1 150

4

NOTAS FINAIS



4 NOTAS FINAIS

Soluções adaptáveis e ágeis

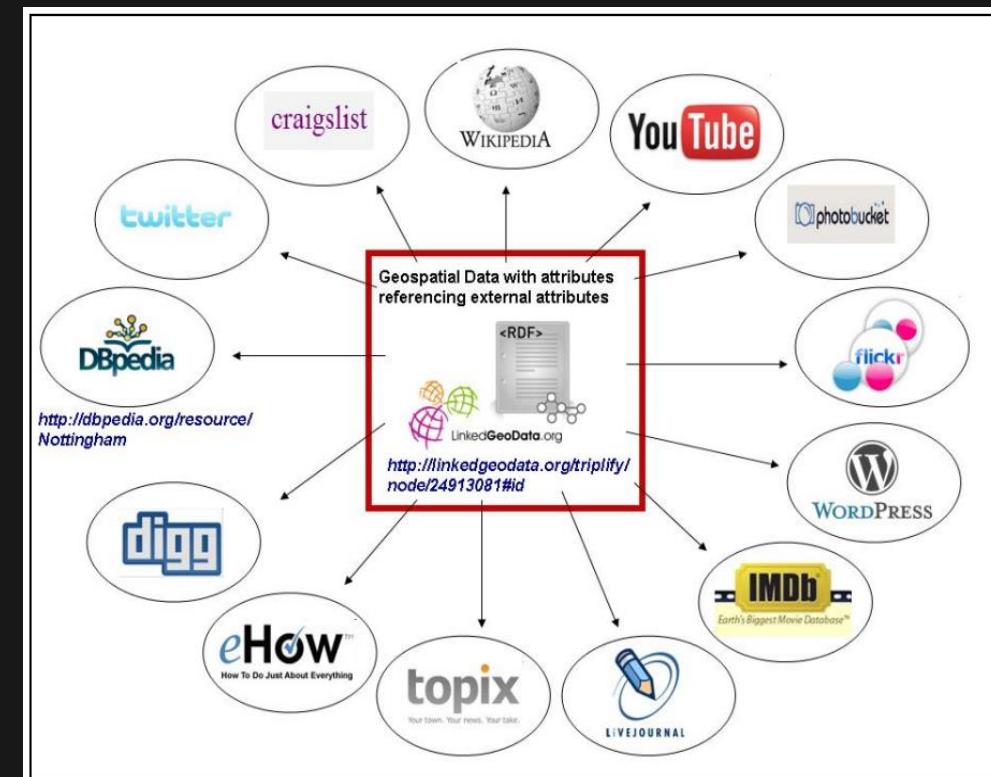
- Computação ubíqua, móvel, nuvem ...
- Sistemas abertos
- Dados abertos e *crowdsourcing*

Infra-estruturas robustas

- Infra-estruturas de dados espaciais
- Ferramentas de análise espacial

Infra-estruturas integradoras

- Centros de controlo
- Dashboards



4 NOTAS FINAIS

Conflitos

- Fontes múltiplas de dados
- Oficiais vs Informação Geográfica Voluntária

Constrangimentos

- Protecção de dados pessoais
- Protecção de dados sensíveis

Desequilíbrio

- Geográfico
- Social



4 POLÍTICAS PÚBLICAS

- Transversais
- Dimensão geográfica
- Formulação, Monitorização e Avaliação:
 - Dados
 - Indicadores
 - Metodologias
 - Ferramentas



4 NOVOS PARADIGMAS

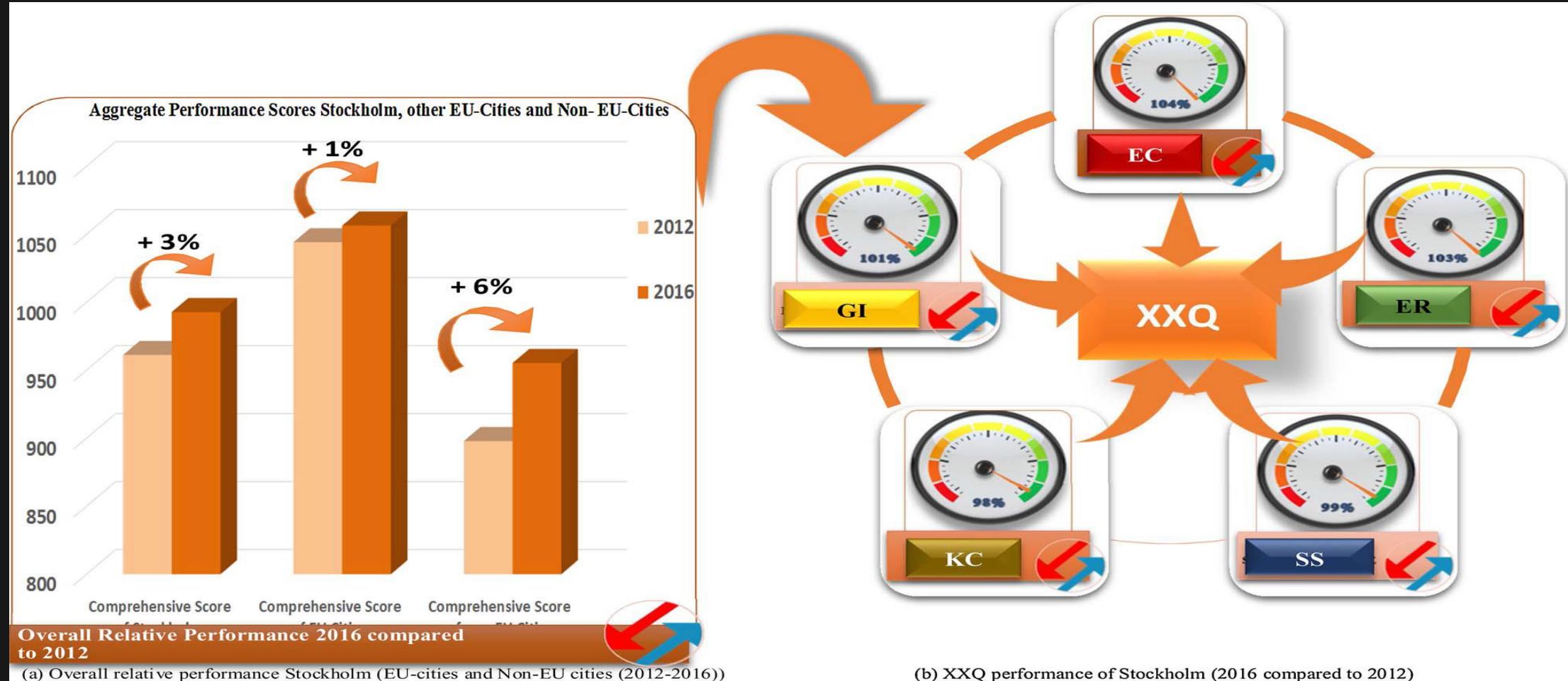
Faz todo o sentido haver:

- maior **articulação do investimento público**, por forma a assegurar a existência de conjuntos de dados geográficos estratégicos, de qualidade, bem como garantir a sua actualização
- maior **descentralização** do processo produtivo destes conjuntos de dados geográficos básicos, envolvendo os municípios
- **condições de acesso** aos conjuntos e serviços de dados geográficos estratégicos que promovam a sua efectiva utilização pública, a criação de valor acrescentado e o suporte à investigação e docência
- maior aproveitamento e integração do contributo participativo dos **Cidadãos** (directo ou indirecto / individual ou colectivo)

4 SOLUÇÕES



4 SOLUÇÕES



4 SMART...

Smart sensors

Smart devices

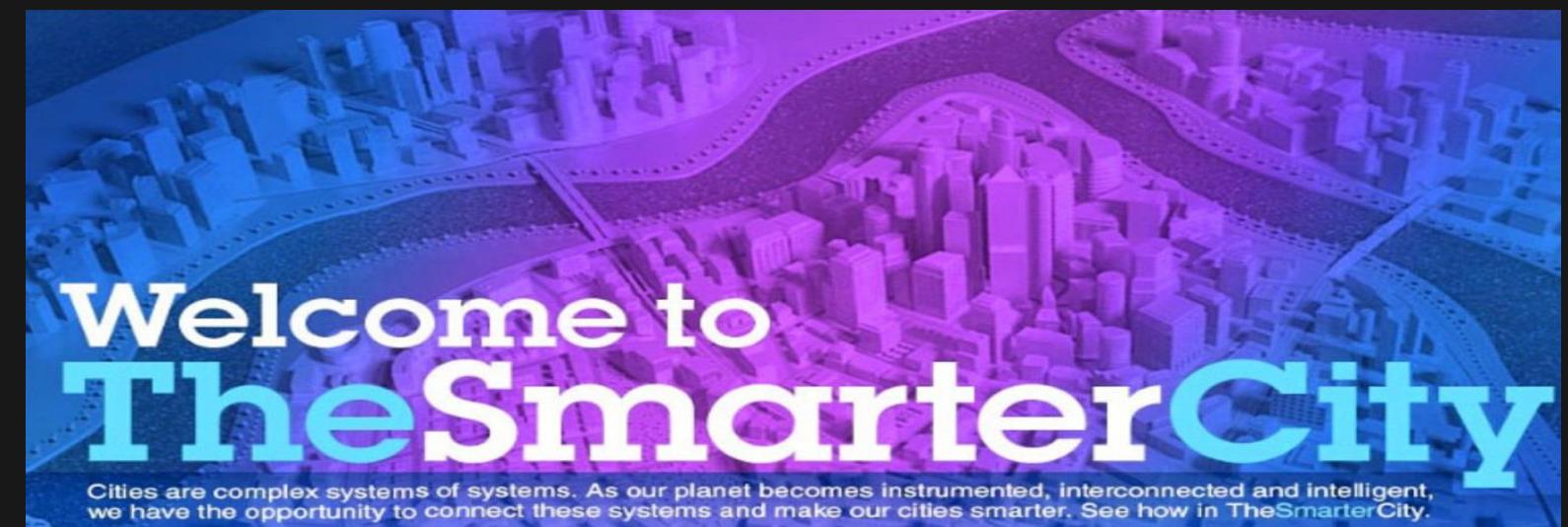
Smart systems

Smart organizations

Smart cities

Smart government

Tudo é smart...



4 SMART...

Smart sensors

Smart devices

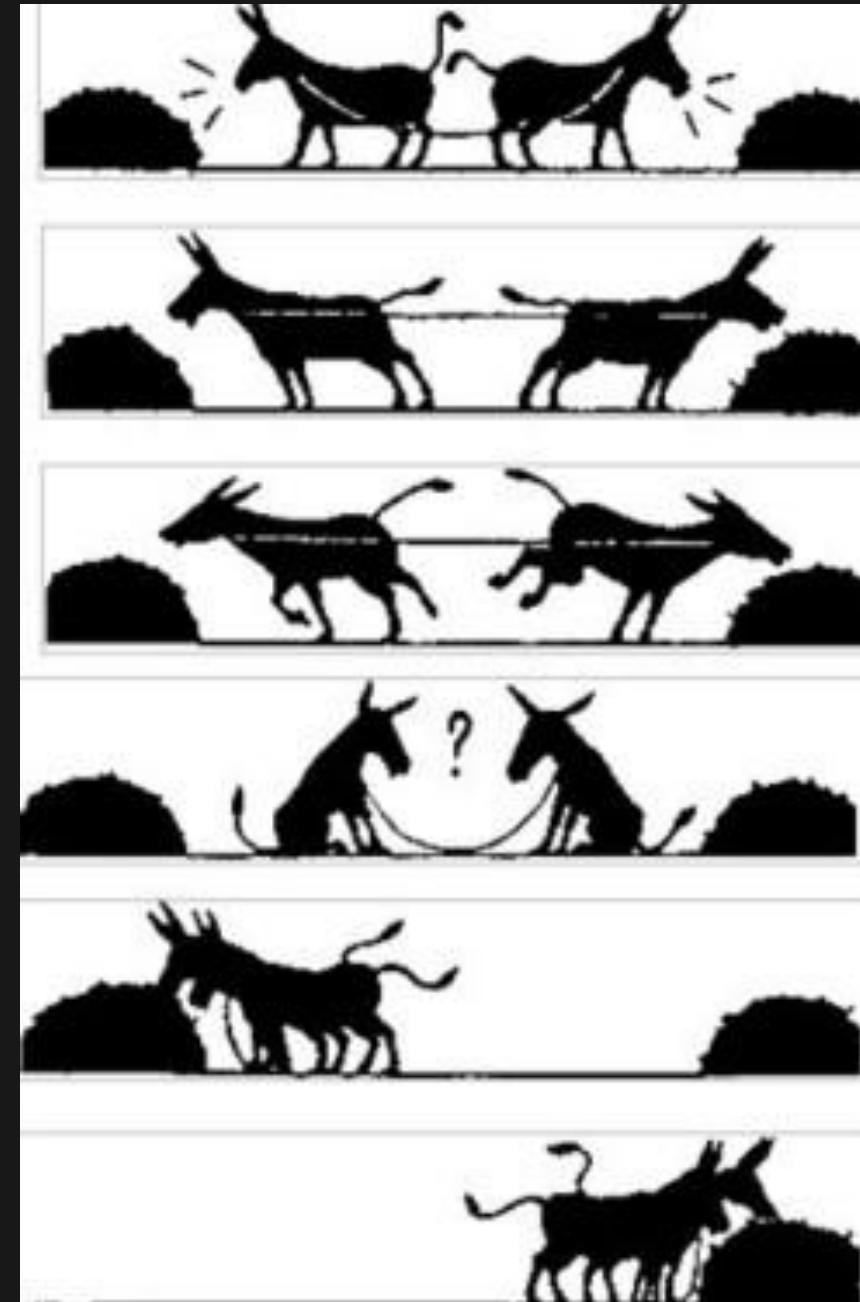
Smart systems

Smart organizations

Smart cities

Smart government

Tudo é smart...



OBRIGADO

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Apoio do CICS.NOVA – Centro Interdisciplinar de Ciências Sociais da Universidade NOVA de Lisboa, no âmbito do projeto UID/SOC/04647/2013, apoiado pela FCT/MCTES através de Fundos Nacionais.

