

BRISEIDE: Bridging Services and Information for Europe

The case study on Indicators for Environmental Quality
to reach Urban Welfare – IQ2U

VALE, M. José, JULIÃO, Rui Pedro, GEIRINHAS, João

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BRISEIDE AND THE IQ2U PROTOTYPE

1. BRISEIDE AND THE IQ2U PROTOTYPE

BRISEIDE is an ICT Policy Support Programme project within EU's. It involves 15 EU partners on the development of **spatio-temporal web processes for geospatial application**.

The spatial analysis developed tools will be accessible on the Web and will be available within compatible Web GIS applications.

Recent developments achieved within relevant INSPIRE related projects or Standard services will be analysed and explored in order to provide access to relevant existing geodatabases, restructured or enriched with additional data in order to accomplish the different user requirements.

The BRISEIDE relevant deliverables include:

- Time aware extension for data models developed within relevant INSPIRE related projects;
- Value added services for spatio-temporal authoring, analysing, processing and visualization of information;
- Application prototypes based on the integration of existing user operational information in order to achieve specific research goals.

The case study on Indicators for Environmental Quality to reach Urban Welfare – IQ2U, presented in this paper is one of the BRISEIDE application prototypes that is being developed with IGP collaboration.

2. THE IQ2U APPLICATION PROJECT

2. The IQ2U application project

2.1. IQ2U - MAIN GOAL

- Evaluate urban growing and its impact in environmental quality in order to promoted more effective land use planning approaches.
- Better understand in what extent the planning process has been relevant in promoting quality of life and welfare in urban areas
- Support the implementation of legal framework
- INSPIRE monitoring and improvements

Doing so it will contribute to understand the cost of unbalanced urban growing and will lead economic growing to more sustainable and equity approaches.

2. The IQ2U application project

2.1 Main goal - selected areas of interest:

- a. The dam of Castelo do Bode surrounding area, a main rural area
- b. The Metropolitan Lisbon Area - one of its Municipalities



2. The IQ2U application project

2.2 Relation to other initiatives/projects

- INSPIRE
- GMES – GSE Land information service
- Eionet- Data sets for Land Management
- Plan4all
- Online Atlas
- SIARL (Sistema de Informação de Apoio à Reposição da Legalidade na orla costeira continental)
- Local Agenda 21

2. The IQ2U application project

2.3 Main Users

- **User 1: Investors, Enterprises related to the building and planning sector**
- **User 2: Group Reserchers- University**
- **User 3: Municipalities, Government, Europe**
- **User 4: General Interested Public**

2. The IQ2U application project

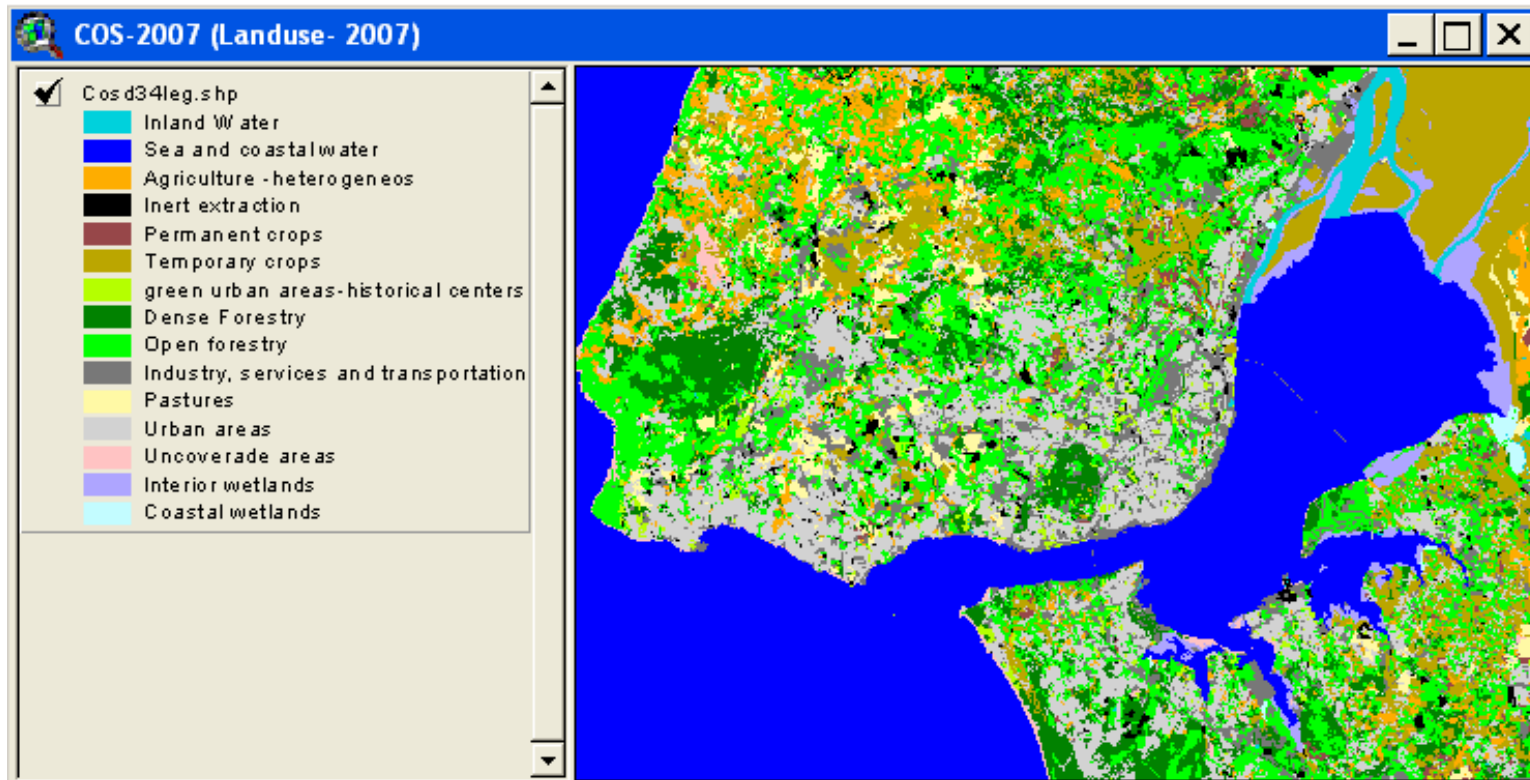
2.4 Data used for the Pilot

- Dataset 1: Land use- COS 2007
- Dataset 2 : Land use- COS 1990
- Dataset 3: Ortofotocartas, 2007
- Dataset 4: IGT- PMOT- local authority 1- Urban areas delimitation
- Dataset 5: IGT- PMOT- local authority 2 – Urban areas delimitation
- Dataset 6: INE demografical data
- Dataset 7: INE economical data
- Dataset 8: INE environmental data
- Dataset 9: Qualair: Air quality – PM10; PM2,5;

2. The IQ2U application project

2.4 Data used for the Pilot

- Dataset 1: Land use- COS 2007




The land use- Cos 2007 is IGP property and as a detail of 1 ha. It allows by compasion to the COS 1990 evaluate the evolution of urban areas within the portuguese context.

2. The IQ2U application project

2.4 Data used for the Pilot

- Dataset 4 INE Demographic data



Local de residência 	Densidade populacional (N.º/ km ²) por Local de residência; Anual
	Período de referência dos dados
	2008
	N.º/ km ²
Grande Lisboa	1 475,0
Amadora	7 237,2
Cascais	1 933,1
Lisboa	5 777,8
Loures	1 151,8
Mafra	243,0
Odivelas	5 828,0
Oeiras	3 758,1
Sintra	1 396,8
Vila Franca de Xira	447,5

Densidade populacional (N.º/ km²) por Local de residência; Anual - INE, Estimativas Anuais da População Residente

Última actualização destes dados: 07 de Setembro de 2009

2. The IQ2U application project

2.5 Analysis to be performed

Two different kind of analysis will be able to be performed within IQ2U prototype application:

- The first analysis explores the relation between the spatial planning and the urban growth. For this reasons the users should have access to the urban planning dataset and compare the data available with the created dataset. The user can be able to evaluate the overlap between the two identified areas.
- The second analysis is related to the impact of urban growth in environmental quality. The user can access to the information related to the air or water quality also considering results coming from different EU funding projects approaches namely related to water quality framework directive implementation (Figure 4).

3. EXPECTATIONS

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- The IQ2U project intends to explore developed BRISEIDE tools and use them to evaluate evolution of urban land use, in different landscape contexts.
- Use different datasets approach to deal with urban landscape evolution and its impact in environmental quality, in order to promoted more effective land use planning approaches and evaluate information fitness for purpose.
- Contribute to better understand in what extent the planning process has been relevant in promoting environmental quality in urban areas and their surroundings.
- Give a good contribution to INSPIRE Directive implementation namely within the Portuguese context and can propose relevant improvements dealing with geographical information.

Doing so it will contribute to understand the relevance of understanding information quality and its reliability for properly understand urban growing, in a more realistic approach.

MUITO OBRIGADA