

An innovative platform for territorial marketing and location benchmarking

J.F.G. MENDES
Full Professor
Territorial Planning Research Group
School of Engineering
University of Minho
Campus de Gualtar
4710 - 057 Braga
Portugal
Tel: +351 253604726
Fax: +351 253604721
E-mail: jfgmendes@civil.uminho.pt

Ricardo LOPES
Innovation Point S.A.
Rua do Raio, 175
4711-910 Braga
Portugal
Tel: (+351) 253610007
Fax: (+351) 253613014
E-mail: ricardo.lobes@innovpoint.com

Renato da Silva LIMA
Federal University of Itajubá
Industrial Engineering and Management
Institute
Av. BPS, 1303,
Itajuba, MG 37500-903
Brazil
Tel: +55 35 3629 1296
Fax: +55 35 3629 1149
E-mail: rslima@unifei.edu.br

Abstract: When looking for locations to install their production or business units, entrepreneurs undertake a well established decision process that starts with the very first option to invest in a specific country and finishes with a final decision over a commonly named “short list”. In order to support investors looking for investment locations in Portugal across the decision process mentioned before, an internet platform was developed and deployed worldwide as a result of a development partnership between the University of Minho and Innovation Point S.A., a technological start-up. The platform, named where-to-invest-in-portugal.com and often classified as a territorial marketing & analysis platform, includes an extensive set of resources to support potential investors. Among them, the so-called Investor_DSS channel is a multicriteria Decision Support System intended to model the geographical screening and find the best ranked set of locations (municipalities) for a particular location exercise. Other channels include fact sheets and databases for Business Space Offers and Business Opportunities. A special channel is dedicated to the Mayors, a space where they may address an invitation for direct investment in their Municipalities. This paper describes the architecture of the platform and some of the relevant developments related to.

Keywords: Decision support system, Investment location, Territorial marketing

1. INTRODUCTION

Regional and Local Government funding is no longer a matter of transfers from Central Governments. Increasing autonomy of regions and municipalities is typically followed by increasing responsibility in raising funds.

This paradigm shift, observed in most of the countries, is also taking place in Portugal, where municipalities are forced to find alternative directions for the realisation of development, cohesion and sustainability aims. Municipalities find themselves before the need to create friendly and stimulating environments for economic activities in order to generate funds that are critical for keeping adequate levels of investment and service for citizens.

Portuguese municipalities are often kept invisible in investment location processes. They miss a space which enables them to take place in this game, namely to present themselves nationally and internationally in their quality of receptor places for investment. On the other hand, entrepreneurs, enterprises and investors lack decision resources based on municipalities' databases and knowledge.

The efforts carried out by many municipalities concerning the improvement of infrastructures, facilities, living and working conditions, including investments in business parks and incubators, may only be converted in results if a further critical step is undertaken in order to place municipalities in the decision routes. This step comprises a territorial marketing approach.

In order to meet this need, a web-based platform named where-to-invest-in-portugal.com was developed, which aimed at being a space for the convergence of interests, combining the municipalities' territorial marketing with a family of rigorous and transparent resources to support decision-making processes of investors and enterprises looking for locations for their investments and businesses.

The concept where-to-invest-in-portugal.com was developed in 2005-2006 through a partnership between three entities: Innovation Point S.A., a private start-up company; Câmara Municipal de Braga (CMB), a public institution which is the Local Authority of the Municipality of Braga (170.000+ hab); and the Associação Industrial do Minho (AIM), a regional association of enterprises (1500+ companies) holding a non-profit & public-utility status. The project strongly benefited from the transfer of the research outcomes of a team from the University of Minho, in Braga. Since 2006, the platform has been open to the municipalities who want to join on a subscription base, and offers free access to the economical agents, especially enterprises and investors.

2. STATE-OF-THE-ART

The topic of developing and marketing the competitiveness of countries and regions has been deeply studied by several authors. One of the best contributions is the report published by OECD (1996) where competitiveness is defined as "supporting the ability of companies, industries, regions, nations or supranational regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels".

The attraction of investment – the very final objective of territorial marketing - is very well treated in a Report of the Planning Commission Government of India (2002), where the drivers of Foreign Direct Investment are described and analysed.

Territorial marketing and investment attraction are obviously critical topics for European countries as well. A benchmarking analysis of the solutions adopted by European Union countries and Switzerland was carried out. The Swiss approach to investment attraction is very well reflected in their Handbook for Investors (Secretariat for Economic Affairs, 2005).

Most of the platforms for marketing and benchmarking identified revealed to be interesting and useful, often with high quality marketing techniques and effective publicity messages, like the ones from Portugal (www.portugalglobal.pt and www.iapmei.pt), the Global Risk Navigator (www.navigaterisk.com) and the one from of the British-Portuguese Chamber of Commerce (www.bpcc.pt). However, the focus is mostly the unidirectional message, often supported in facts provided by independent entities. The interaction allowed to the user (investor/enterprise) is limited to the search of sites (typically business parks) based on location/characteristics filters.

The state-of-the-art analysis helped to establish a conceptual framework based on best practices, and additionally to identify a space for innovation which was pursued by where-to-invest-in-portugal.com and consubstantiates in a highly interactive concept where the enterprise/investor is enabled to implement his own decision process, customised, taking advantage of the resources offered.

3. AN INNOVATIVE SOLUTION

The collaborative work between the local partners (Innovation Point, CMB, AIM), and indirectly the University of Minho, lead to a 6-step synthesis of the decision-making process regarding the location of business and production units, as follows (Mendes, 2008):

- The option to invest in Portugal, relevant for both national and international investors;
- A screening process over the analysis universe (awareness set), in order to identify a set of municipalities or opportunities that satisfy the location requirements specific of that particular investor (consideration set);
- The consultation of additional information as data and facts regarding the consideration set, potential alternative sites for settlement, etc;
- The acquisition of in-depth knowledge, contextualised and relevant for the specific business or investment in consideration, upon which results the so-called short list or choice set;
- The missions to visit the short list municipalities and establish contacts and preliminary negotiations;
- Finally, the location decision.

For each stage, where-to-invest-in-portugal.com offers a space of resources to support investors and entrepreneurs through an on-line bilingual platform (portuguese-english), as shown in Figure 1.

A brief description of each resource is shown in Figure 2. Further details and actual use may be tried on-line.

The most innovative aspect at the conceptual level lies in the integration between territorial marketing and the resources offered, which enables investors' decision-making to be performed in an orderly, scientific and comprehensive fashion, and prevents the so-often seen one-directional publicity practices. The technological solution was developed upon a web paradigm, including business intelligence tools that can generate critical strategic information, like the Confidential Annual Report on

the Territorial Competitiveness of the municipalities that integrate the platform.



Fig. 1 Resources in where-to-invest-in-portugal.com

Fact_sheet.Portugal

Provides a fact sheet about Portugal for visualisation and downloading, including the following sections: General information, Population, Geographic features, Political framework, Key economic indicators, Economy, International trade, Legal information, Practical information.

Investor_DSS

Provides a decision support system, which enables benchmarking for location finding, working through the internet; it is based on a multi-criteria evaluation engine, through which users implement a customised screening process in order to find a set of municipalities that satisfy the requirements for an optimal location.

BUSINESS_opportunities

Provides a database of investment proposals placed by promoters who look for investors interested in partnerships (in implementation).

Fig. 2 where-to-invest-in-portugal.com resource descriptions

FACT_sheet.Municipalities

Provides an information sheet about each of the Portuguese municipalities, including more than hundred variables permanently updated, organized in seven dimensions: Population, Quality of Life, Employment and Unemployment, Economic activity, Services provided to companies, Accessibility and transport, Taxes and public investments.

MAYOR_invides

Provides a space where the mayor of the municipality himself presents the arguments he considers justifying an installation of business units and investment in general in the territory of his municipality.

SPACE_offer

Provides a database of available location areas for business units, including business, technological and industrial parks, searchable by location, characteristics, available facilities and conditions of accessibility.

REPORT

Offers a support service for investors and municipalities by means of the development of in-depth reports regarding particular municipalities, regions or locations.

Tour&Negotiation

Offers a support service for investors and municipalities for the preparation and accompaniment of visits to potential investment locations, as well as in the mediation of the negotiation process.

Fig. 2 where-to-invest-in-portugal.com resource descriptions (cont.)

4. INVESTOR_DSS: A DECISION SUPPORT SYSTEM

The problem with the existing platforms is that the user is commonly limited to receive the information available in pre-determined formats and without any chance of implementing customised decision processes. In other words, different users, let's say potential investors, with specific needs are probably served with the same approach and the same information. To overcome this performance gap, the platform

where-to-invest-in-portugal.com introduced Investor_DSS.

The function Investor_DSS is a support system for investors, which enables decision making for location finding, working through the internet. It is based on a multi-criteria evaluation, through which investors implement a screening, allowing them to find a set of municipalities which satisfy their requirements for an optimal location. From the users point of view the process proceeds according to the following steps:

- Registration of the user;
- Registration of the purpose of the session;
- Selection of dimensions and variables to be considered in the analysis;
- Definition of the profile of the evaluation, through the attribution of weights to the dimensions and variables;
- Presentation of results: 15 municipalities most adequate for localisation;
- Graphic presentation of the characteristics of the profiles of the first 5 municipalities;
- Presentation of the summary sheets of the five first municipalities;
- A complete report in pdf to download.

Users may access the module Investor_DSS and consult previous analyses in a personal/corporate reserved space accessible by password.

More than 100 variables are available for the analysis, organised in the following seven dimensions (also called competitiveness dimensions):

- Population;
- Quality of Life;
- Employment and Unemployment;
- Economic activity;
- Services provided to companies;
- Accessibility and transport;
- Taxes and public investments.

The database used for the operation of the multi-criteria analysis is permanently updated and re-evaluated, and is integrally accessible through the channel Municipalities_Fact Sheet.

Figure 3 presents the definitions for the location of an industrial unit, as summarized by the on-line computational tool. Given these requirements and constraints, which were stated by the user (investor) for this particular simulation, selected variables were normalized, weighted and combined, resulting in a location index that measures the relative suitability of each municipality for the location of the unit. Based on this index, a rank of municipalities was produced.

Figure 4 shows the best 15 locations (municipalities) and a profile of the best 5. The

interest of the profile is to represent the contribution of each competitiveness dimension and to compare it with the average profile of the best 15 locations. Additionally, the on-line software presents some key statistics of the best 5 locations (Figure 5).

Identification

Innovation Point, Portugal

Area of activity

Agriculture, animal production, hunting and forestry

Session title

Electric Company - Location Analysis 2.1

Objective of session

Industrial unit - electronic and optical equipment

Geographical set

Centro

Population classes

M2 (Medium-large, from 50.001 to 200.000 inhab.)

Weighting

By dimensions and indicators

Dimensions, indicators and weighting

Description	Contribution	Weighting (1 to 5)	Weight (0.0 to 1.0)
Population		3	0,11
Percentage of population [25-64] (most recent projection)	+	5	0,63
Percentage of population that reached secondary education level	+	3	0,38
Quality of life		4	0,15
Hospital beds per 1.000 inhabitants of NUT III	+	3	0,27
Area of food retail super/hypermarkets per 1.000 inhabitants	+	3	0,27
Cost per sqm of housing	-	5	0,45
Employment and unemployment		4	0,15
Percentage of employees in manufacturing	+	5	0,56
Percentage of employees in transport, storage and communication	+	4	0,44
Economic activity		4	0,15
Percentage of turnover in manufacturing	+	5	0,28
Percentage of turnover in transport, storage and communication	+	4	0,22
Labour productivity in NUT III	+	5	0,28
Percentage of turnover on exports to EU	+	2	0,11
Percentage of turnover on exports to countries other than EU	+	2	0,11
Services provided to companies		3	0,11
Bank branches per 1.000 companies	+	5	0,56
R&D units in S&T in NUT III	+	4	0,44
Accessibility and transport		4	0,15
Road density (national network) in distrito	+	5	0,63
Travel time to international seaport	-	3	0,38
Taxes and public investment		5	0,19
Municipal surcharge over corporate tax	-	5	0,63
Municipal investment per inhabitant	+	3	0,38

Fig. 3 Investor_DSS: data for a location analysis

The 15 best locations



Portugal (NUTII)



Profile of the 5 best locations

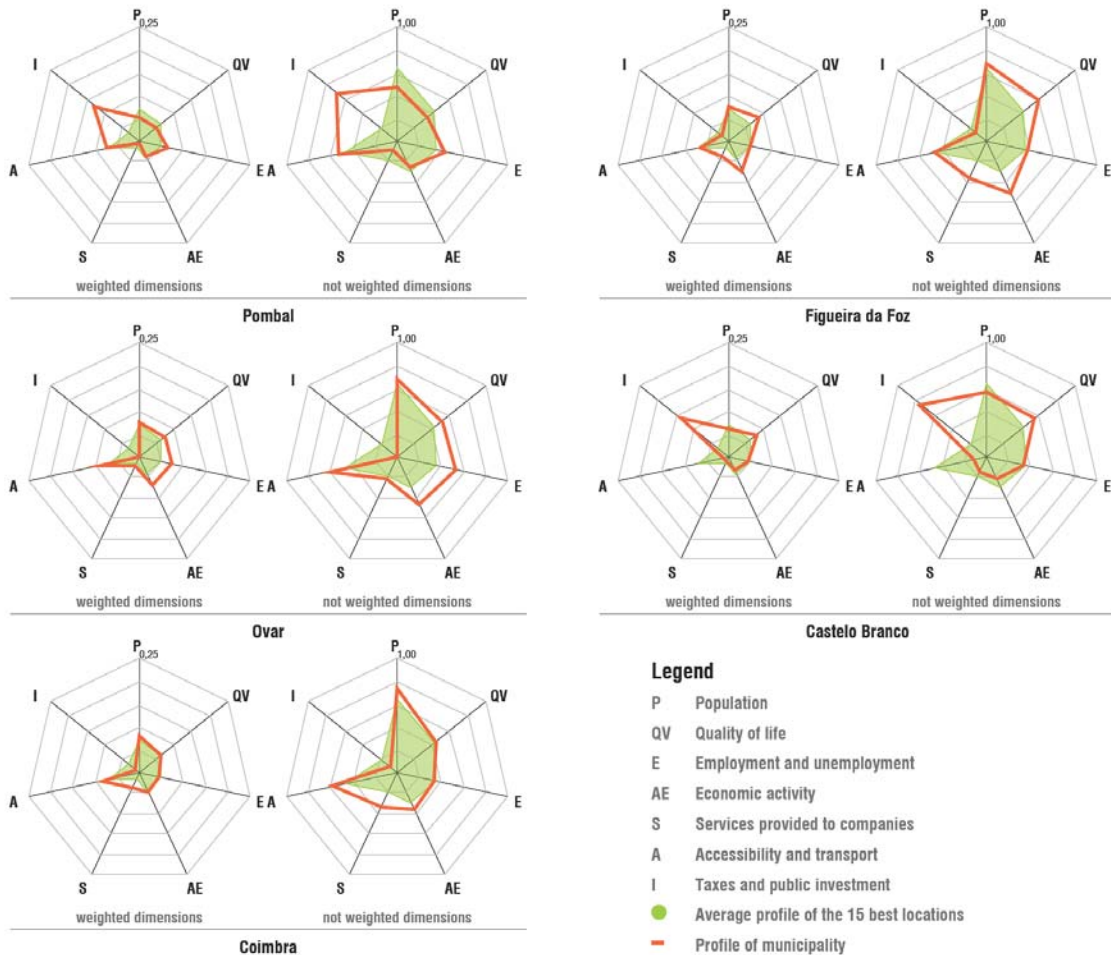


Fig. 4 Investor_DSS: best locations and profiles

Municipality	Pombal	Figueira da Foz	Ovar	Castelo Branco	Coimbra
Population class	M2	M2	M2	M2	M2
NUTII	Centro	Centro	Centro	Centro	Centro
NUTIII	Pinhal Litoral	Baixo Mondego	Baixo Vouga	Beira Interior Sul	Baixo Mondego
Population, Quality of life					
Population, total (most recent projection)	58.617	63.144	56.715	55.034	142.408
Percentage of population [0-14] (most recent projection)	14,7%	13,6%	17,3%	13,2%	14,0%
Percentage of population [15-24] (most recent projection)	12,8%	11,4%	13,0%	11,1%	11,6%
Percentage of population [25-64] (most recent projection)	51,7%	55,0%	56,4%	52,9%	57,1%
Percentage of population [65 +] (most recent projection)	20,8%	20,0%	13,3%	22,8%	17,4%
Hospital beds per 1.000 inhabitants of NUT III	0,2	11,4	1,9	4,1	11,4
Cost per sqm of housing	776 EUR	1.319 EUR	684 EUR	1.022 EUR	1.500 EUR
Economic activity, Employment and unemployment					
Unemployment rate	3,3%	7,7%	10,1%	6,6%	7,0%
Companies, total	2.555	1.970	1.391	1.913	5.115
Turnover of companies, total	931 M EUR	1.372 M EUR	1.189 M EUR	1.551 M EUR	5.962 M EUR
Turnover of companies, average	364 K EUR	696 K EUR	854 K EUR	811 K EUR	1.166 K EUR
Labour productivity in NUT III	20 K EUR	21 K EUR	21 K EUR	18 K EUR	21 K EUR
Percentage of companies exporting to EU	1,2%	1,0%	4,2%	0,9%	1,0%
Percentage of turnover on exports to EU	5,2%	41,5%	41,9%	0,0%	0,9%
Percentage of companies exporting to countries other than EU	2,3%	2,4%	7,3%	1,4%	2,9%
Percentage of turnover on exports to countries other than EU	1,4%	8,3%	8,3%	0,2%	0,2%
Accessibility and transport, Services provided to companies					
Bank branches per 1.000 companies	14,9	19,3	20,8	18,8	18,8
R&D units in NUT III	1	58	15	1	58
Travel time to international airport	103 min.	107 min.	52 min.	135 min.	95 min.
Travel time to international seaport	47 min.	108 min.	53 min.	151 min.	40 min.
Population classes: S (Small, up to 10.000 inhab.), M1 (Medium-small, from 10.001 to 50.000 inhab.), M2 (Medium-large, from 50.001 to 200.000 inhab.), L (Large, more than 200.000 inhab.)					

Fig. 5 Investor_DSS: key statistical data

5. RESULTS AND CONCLUSIONS

The where-to-invest-in-portugal.com platform delivers a family of information and benchmarking resources, focused on municipalities and directed to investors and entrepreneurs. Investors looking for locations for new or expansion projects in Portugal may now access to transparent procedures which bring to the location analysis the relative merits of municipalities.

The results of this new concept, which adds value and innovation to the classical location decision models, have been excellent. Relevant points are: the member subscription of 35 new municipalities (since 2006); the sustainability of the project as municipalities contribute with an annual fee; the improvement of the business and investment climate reported by most of the member municipalities; the frequent access and use of the on-line platform resources by investors, municipalities and consultancy agencies.

The web accesses registered so far are quite promising, considering the very specific nature of the platform (Table 1).

Table 1: Web accesses (2006 to present)

Average monthly visits: 1.390	Average monthly visited pages: 7.950
Countries of origin of visits (number): 110	Top ten countries: Portugal, USA, UK, France, Brazil, Germany, Spain, China, Austria, Canada.

Included in the dissemination plan, several presentations, courses, workshops and contacts have been undertaken, as presented in Table 2.

Table 2: Dissemination actions (2006 to present)

Contacts/Visits/Information demand	Presentations and Training
Portuguese municipalities: 250 (out of 278)	Presentations of the project: 150 (1h each)
Embassies/Chambers of Commerce: 34	Courses on local competitiveness: 2 (24 trainees)
Investors/enterprises: 150	Workshops for investors/entrepreneurs: 5


The latest developments include new functionalities as on-line news, critical documents archive, and extensive use of Google-maps technology embedded in the platform. A new layout and respective design was introduced as presented in Figure 6.



Decision support tools for investment location and business development in Portugal.

MAYOR highlights

Chaves




"There is enough manpower, general or qualified. However, either in the Vocational School or in the Vocational Training Centre existing here, the appropriate training addressing specific needs of investments may be developed."

[Read the Mayor's invitation to invest in Chaves.](#)

SPACE highlights


Industrial zone of Fages, Vila Nova de Famalicão



4 Km from a motorway junction...
35 Km from an international airport...
40 Km from a seaport...
15 Km from a railway terminal...

Geographical Coverage

where-to-invest-in-portugal.com accessed from 55 countries in April 2008.



[view geographical coverage](#)
[view country list](#)

WTIP highlights

news

Germany propels eurozone growth
Times Online, UK - 39 minutes ago
Yesterday's news from other eurozone economies was less rosy, with **Portugal's economy** shrinking by 0.2 per cent, while growth in Spain slowed abruptly to ...

Eurozone Economic Growth Gains Traction In Q1
Forex Pros, British Virgin Islands - 3 hours ago
Quarter-on-quarter, GDP rose 0.2% compared to previous quarter's 1.1% growth The Portuguese **economy** shrunk on a quarterly basis. The Statistics **Portugal** ...

THOMSON FINANCIAL NEWS TOP STORIES
Hemscott, UK - 3 hours ago
LISBON (Thomson Financial) - **Portugal's** GDP was down 0.2 percent in the first quarter of this year from the fourth quarter of 2007, but up 0.9 percent from ...

WTIP news

1 2 3 4 5 > >>

Portugal on 29th place out of 177 countries in HDI (human development index)

Each year since 1990 the Human Development Report of the United Nations Development Programme UNPF has published the human development index (HDI) which looks beyond GDP to a broader definition of well-being.

[view more...](#)
2008.04.21

Portugal is on 2nd place within 127 countries regarding the

wtip newsletter

Subscribe newsletter
[View old editions](#)

where-to-invest-in-portugal.com powered by:

innovation point

and recommended by:

British-Portuguese Chamber of Commerce
Câmara de Comércio Luso-Britânica

AIMinho
Associação Industrial do Minho

documents archive

1 2 3 4 5 > >>

Network Readiness Index NRI Country Details Portugal
[View \(7,28 KB\)](#)
2008.04.09

"Global Information Technology Report 2007-2008" Executive Summary
[View \(279,28 KB\)](#)
2008.04.09

Country/Economy Profile Portugal – Travel&Tourism Competitiveness Report 2008
[View \(326,47 KB\)](#)
2008.03.06

Fig. 6 Current where-to-invest-in-portugal.com homepage layout

REFERENCES

Mendes, J.F.G. (2008) where-to-invest-in-portugal.com. **Actas do PLURIS 2008**, Santos-SP Brazil.

OECD (1996) **Industrial Competitiveness: Benchmarking Business Environments in the Global Economy**.

Planning Commission Government of India (2002) **Foreign Investment India**. Shipra Publications, New Delhi.

State Secretariat for Economic Affairs (2005) **Handbook for Investors**. Location:

Switzerland.

www.portugalglobal.pt – Portuguese Agency for Investment

www.iapmei.pt – Portuguese Agency for SME

www.navigaterisk.com - Global Risk Navigator

where-to-invest-in-portugal.com - Location of investments in Portugal

www.bpcc.pt – British-Portuguese Chamber of Commerce

SHORT BIOGRAPHY OF PROF. JOSÉ MENDES

José Mendes is currently a Full Professor of Territorial Planning in the University of Minho.

He holds a Ph.D in Territorial Planning and has completed post—graduation programs in Management (Harvard University) and Innovation (North Caroline State University).

Professor Mendes has been Vice-President of the School of Engineering and Vice-Rector at the University of Minho, Portugal.

In the past he has taught in Universities in Portugal, Italy, Poland, Brazil, and Mozambique, and serves currently as an Expert for Higher Education Issues in the European Commission.

Prof Mendes has authored more than 50 research articles in the field of Territorial Planning,