

A Sub-Region with peri-urban Characteristics or the Emergence of sustainable and alternative medium-sized City?

The case of Faro and its surrounding municipalities

Introduction

Over the last fifteen years, most of the EU political debate has circled around three key aspects: economic competitiveness, environmental sustainability and social cohesion. These goals are particularly difficult to reach in the case of the large metropolitan areas, as a result of the strong tensions that these urban areas are subject to.

Considering the existing regional disparities on regional development and the contradictory spatial effects of regional policies, the European Spatial Development Perspective (ESDP) seeks to achieve balanced development across the EU territory.

The policy discussion of polycentric territorial development in the ESDP leads to a concern with identifying and classifying territorial differentiation and producing city and regional typologies. (Pumain, 1999) The typology of European regions (despite the initial attempts on pursuit a methodology to achieve a typology of regions) has been carried out with a cluster analysis to classify territories, which include seven indicators of urban-rural spatial patterns of settlement: urbanisation rate, urban densities, rural densities, average spacing between towns of 10,000 inhabitants and more, index of inequalities in town size, primacy index and size class of the main centre.

The main results of that cluster analysis resulted in the identification of five types of territories: regions dominated by a large metropolis, polycentric regions with high urban and rural densities, polycentric regions with high urban densities, networks of medium and small towns and remote rural areas. Such a typology, gives a general view of urban-rural settlement, which we apply in this paper.

Considering the typology that has been defined by the ESDP, the case study of Faro and its surrounding municipalities can be characterised as falling under the “polycentric regions with high urban and rural densities” category.

General context

Over the past few years, the occupation of this particular territory has become increasingly less seasonal – unlike what used to be the case in the past, due to the overwhelming importance of the summertime “sea, sun and sand” tourist industry – and it has increasingly staked its claim as an alternative for those who wish to flee the excessive and rather chaotic densification of the Lisbon and Oporto metropolitan areas.

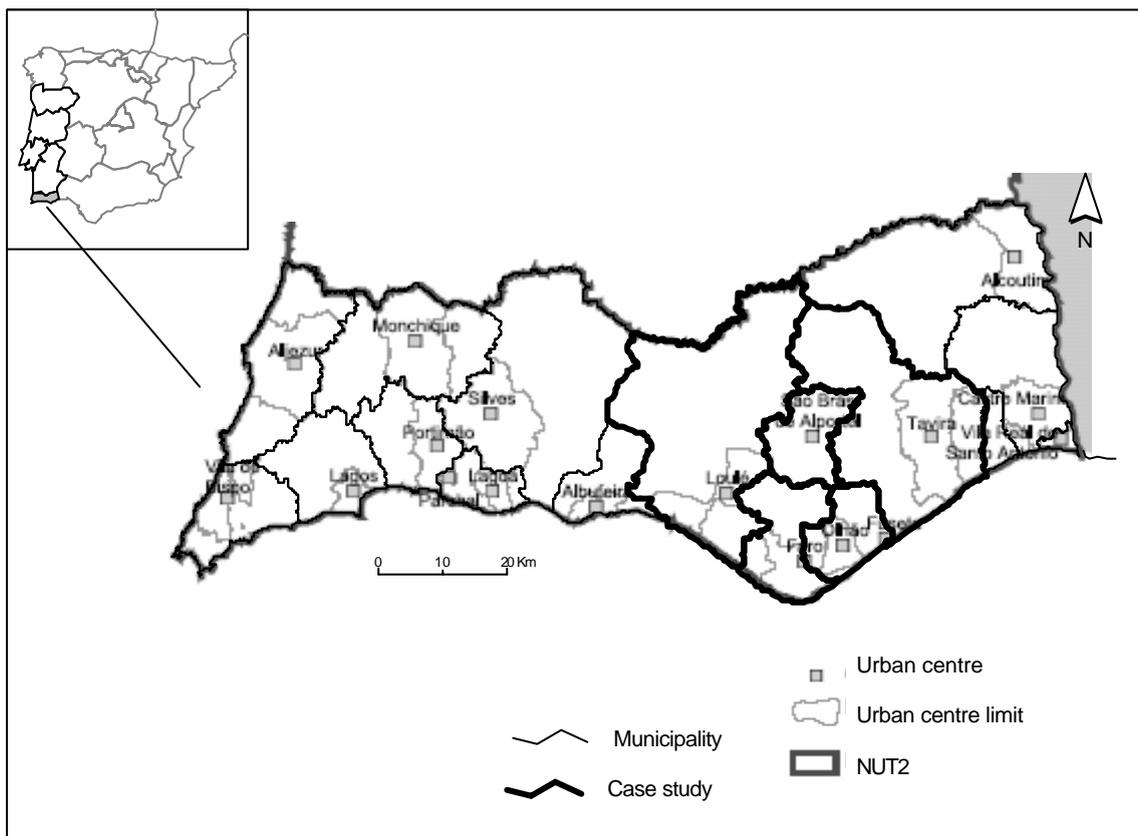
The Algarve is currently one of the main tourist destinations in the country, largely as a consequence of the favourable characteristics of its climate. Thus, productive specialisation has been based chiefly on hotels and restaurants, commerce and tourism. Large-scale tourist industry development in this region began in the 1980s and has consisted mostly in the commercial exploration of the sea-sun binomial, held in particularly high regard by Northern European tourism operators. This has brought on some significant changes in the landscape, economic base, social structure and social-cultural behaviour of the population, as illustrated by the changes in the employment structure (according to the National Institute of Statistics - INE, the tertiary sector accounted for 71.4% (47.3% in 1981) of the labour force in 2001, as compared to 22.5% (27.7% in 1981) in the secondary sector and a mere 6.1% (25% in 1981) in the primary sector).

Despite the relatively high number of urban centres in the Algarve region, indicative of a poly-nuclear urban structure, two urban axes stand out as particularly relevant: Faro – Olhão – Loulé – São Brás de Alportel (case study) and Portimão – Lagos – Lagoa – Silves.

Artificial land accounts for around 6% of the total area of the region, a figure well above the European average (3,48%). On the other hand, 71.8% of the region's population in 2001 lived in predominantly urban areas. In the case of the area included in the case study, 78.9% of the population lived in predominantly urban areas.

According to the criteriaⁱ used by the INEⁱⁱ, the Algarve region comprehends 18 urban centres, most of which are located along the coast, and accounts for 5.7% of the total number of urban centres in the country.

Urban centres in the Algarve region

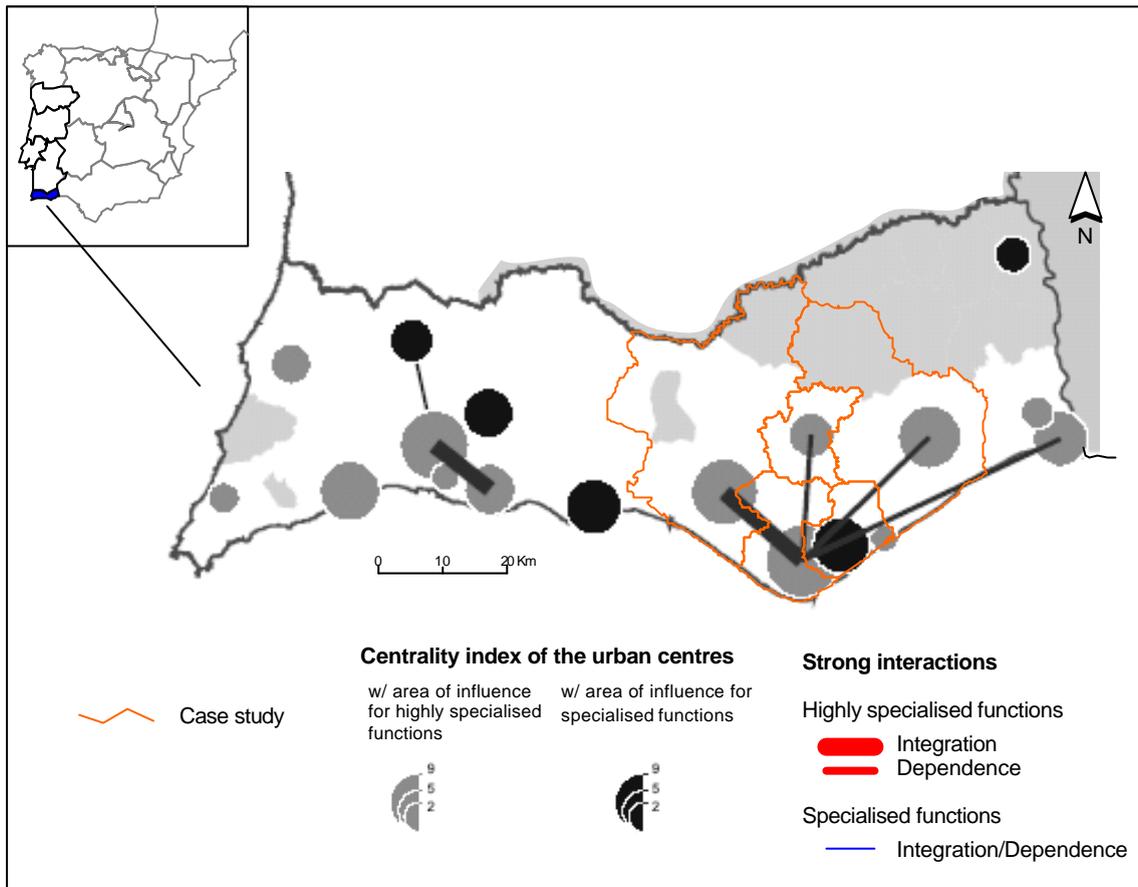


Source: adapted from INE, 2004

According to central place theory, centrality is a function of the functions made available by the central place: those central places that offer rarer, more specialised functions exhibit higher levels of centrality (INE, 2004). The Faro urban centre (31st in the national ranking) is the most central in the Algarve region. Also worthy of mention are the urban centres of Loulé (48th nation-wide) and Tavira (64th in the national ranking). Out of the 117 functions considered in constructing the centrality index, Faro offers 112, thus reaffirming its key role in the NUT3 Algarve and in the area under scrutiny in particular.

In the case of the Algarve region, the urban spatial sub-system is somewhat macrocephalic, in that there is a significant predominance of the city of Faro (along with its linkages with the Eastern part of the region). The analysis of the spatial distribution of the urban centres in the Algarve is indicative of considerable urbanisation along the coast and of the existence of two spatial sub-systems: one structured around the Faro urban centre, the other around the Portimão, Lagos and Lagoa urban centres.

Synthesis of the urban system of the Algarve region



Source: adapted from INE, 2004

Analysis of the case study evidence

The urban network of the NUT3 – Algarve is dominated by the city of Faro – clearly the region’s functional capital. With a population of 58,051 (INE, 2001), Faro has significantly expanded its area of influence, drawing both a high number of functions *and* labour from increasingly distant municipalities. Two factors have driven this expansion: the tourist industry and the fact that Faro is the region’s official administrative capital. Because of these factors, Faro has a number of different characteristics with regard to the other municipalities in the region: the high concentration of administrative functions, on the one hand, and the fact that it is one of the highest-quality areas in the region, on the other.

Within the span of 20 years, Faro has come to perform a series of both national and international functions that account for its status as regional capital:

- The University of Algarve: created in 1979, it today offers 47 different degrees (especially in the area of tourism) to around 10,000 students;
- The creation of the Ria Formosa Natural Park;
- The Faro international airport.

Demography

It is possible to identify some areas in which population levels are high and show a tendency to increase and others where population levels are low and tend to decrease. Based on the population changes between 1981-1991 and 1991-2001, the region can in fact be divided into four different areas:

- 1) “Repulsion” area: the “mountainous” areas (except for the Atlantic coastline), which correspond to the innermost parishes of the Silves, Loulé, Tavira, Alcoutim and Castro Marim municipalities;
- 2) An area of strong population density and “traditional” demographic growth: the central coastal area between Lagos and Olhão, extending all the way to S. Brás de Alportel;
- 3) An area of recent demographic growth: Tavira and Vila Real de Sto António;
- 4) An area exhibiting a tendency towards demographic recovery: the Aljezur and Vila do Bispo municipalities and the Western-most part of Monchique and Lagos.

The “repulsion” area has been experiencing significant depopulation, as the population has increasingly abandoned the area. This process has been the result of both its physical characteristics (it is a mountainous area) and the lack of employment opportunities. As a consequence, the depopulation process has been taking place alongside the ageing of the remaining population (due to the over-representation of the economically active among those that leave the area).

The main population centres are located in the area of “traditional” demographic growth: Faro, Albufeira and Portimão. Tourism, commerce and administration make up the basis for the development of this particular area and have allowed for high levels of population density. The “traditional” demographic growth in the area is sustained by the high concentration of adults in its population.

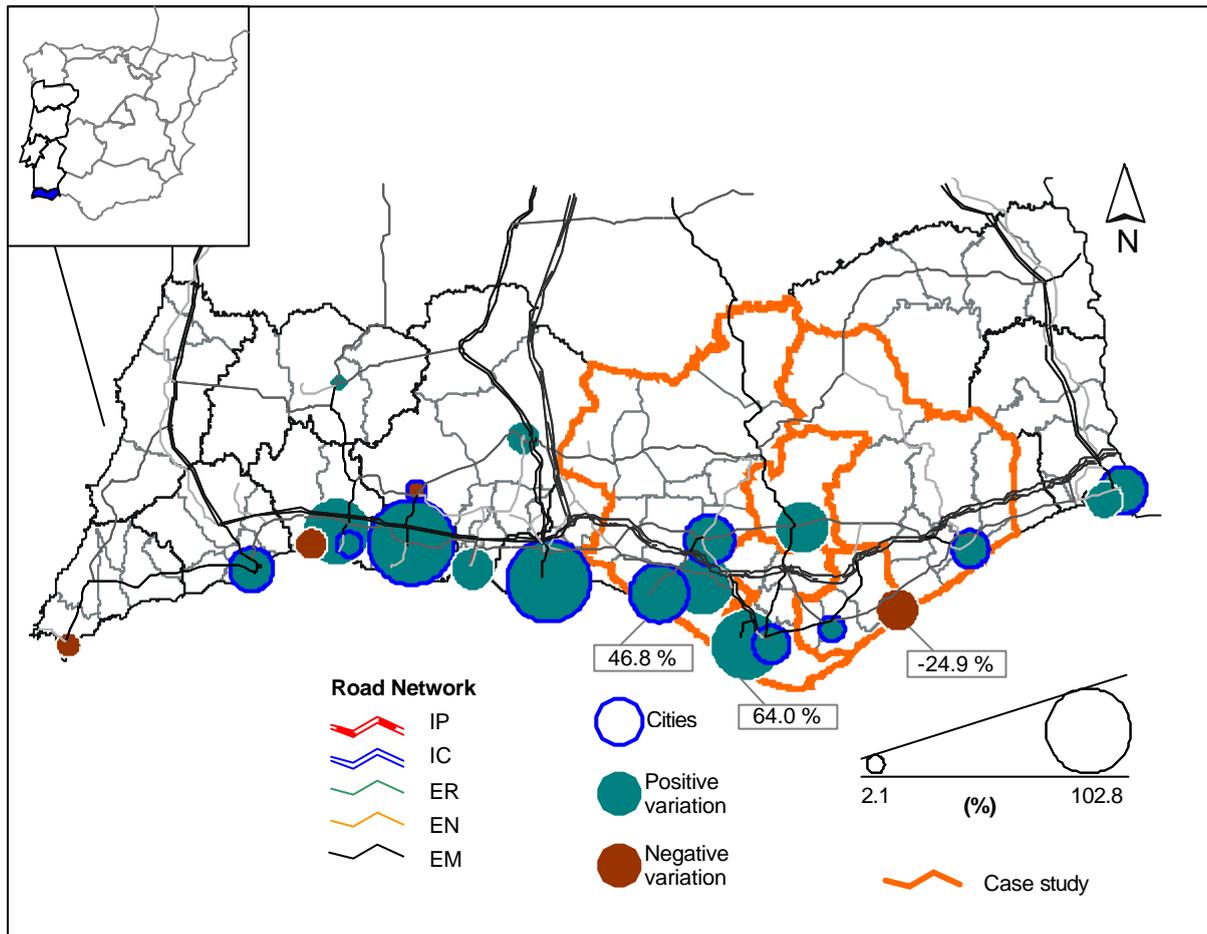
The area undergoing urban expansion has experienced recent demographic growth, alongside significant improvements in its accessibility and transport system.

As for the area that is showing signs of demographic recovery, its physical lay-out and poor accessibility have, until recently, curbed its development. However, recent improvements in its road network and the development of seaside tourism, as the natural attractions of this coast become better-known, have allowed for its recovery.

Settlement patterns

As the next figure illustrates, the largest population agglomerations can be found along the coast: 11 of these are cities, 5 of which inside the area under scrutiny (Faro, Olhão, Tavira, Quarteira and Loulé). The intense relations between these agglomerations fully justify the intense effort that has been made to improve the accessibility and transport system in the region (as visible in the expansion of the road network).

% variation in the resident population between 1991 and 2001
Places with 2,000 or more inhabitants



Source: INE, 1991 and 2001 Census

Employment and economic activities

As was the case in the country as a whole, the Algarve region experienced a decrease in employment in the primary sector and an increase in employment in the tertiary sector between 1981 and 1991. As for the secondary sector, the situation was less uniform, its weight decreasing in some municipalities (e.g., Lagoa and Vila Real de Santo António) and increasing in others (e.g., Tavira and Alcoutim). The increase was highest in the tertiary sector, particularly in the construction (10.1%), manufacturing (7.7%), hotels and restaurants (26.4%) and commerce (24.8%) sub-sectorsⁱⁱⁱ.

Between 1991 and 2001, the situation did not change much, except for a slight increase in the weight of the secondary sector and a certain loss of momentum in the growth of the tertiary sector.

With regard to the employment structure, we find that there is a high degree of specialisation in the service sector, particularly in the tourism and public administration sub-sectors. Faro, Portimão, Loulé and Albufeira account for around two thirds of the employment in the region and an even greater share of the employment in the tertiary sector.

The characteristics of the specialisation of the various municipalities of the Algarve region is also worthy of mention. Based on INE data for the economically active and employed population in 2001, location quotients^{iv} (LQs) were computed for all three activity sectors,

allowing for a measure of the relative weight of a given sector in a given municipality, as compared to its relative weight in the region as a whole. The municipalities that exhibit a higher degree of specialisation in the tertiary sector are also those where specialisation in the service sector is lowest (except for the case of Tavira) and are located both in the littoral West (Vila do Bispo, Aljezur and Monchique) and in the Eastern part of the region (Alcoutim and Castro Marim).

However, one does find that the fishery sector is still relatively important – unlike the agricultural sector, whose relevance has been gradually decreasing. Agriculture, a sector of great importance in the region in the past, has been pushed to the side by the emerging specialisation sector: tourism. Often, agricultural land is left with no use other than real estate speculation. This is due, on the one hand, to the dynamics of the labour market, particularly the increasing absorption of labour by the service sector; and, on the other, to the insufficient productivity of the sector that is a by-product of the ageing process taking place in this region's inland areas.

Against this general background, two somewhat contradictory situations arise: a *decrease* in the relative weight of the agricultural sector, on the one hand; and an *increase* in the economic value of the traditional natural products, both in terms of the tourist market and in terms of the chances for successful commercial penetration in the national and international market.

The tourist industry, which seeks to take advantage of the region's naturally favourable characteristics (particularly for all the leisure activities associated with "sea and sun") clearly dominates the social and economic structure of the region.

According to the INE, 299,178 foreign tourists, or 6% of the country's total, visited the case study area in 2001. As for the lodging capacity (number of beds), the Algarve region accounted for 38.5% of the total for the country as a whole (DGT, 2000).

Tourist demand (both national and international) for this region has been increasing steadily. However, it is worth pointing out that such a high level of regional specialisation necessarily entails a certain degree of risk, as the demand for the region as a tourist destination is highly dependent upon fluctuations in competing markets.

Consequently, there have been some attempts at diversifying the region's social and economic structure away from tourism, particularly by promoting alternative and complementary goods and services, such as fish and seafood, on the one hand, and citrus fruits and nuts, on the other.

All these changes and characteristics have been associated with two intertwining factors (Marques da Costa; Silva; Marques da Costa, 2003): the reconfiguration of the employment catchment areas, as a result of the increase in mobility and the increasing importance of the cities as employment centres; and the significant expansion of the urbanised areas, due both to the population increase and to a series of social-cultural factors, such as the increase in the economic value of the medium-size housing units and the increased demand for public space (green areas, parking lots, sports and cultural facilities, commercial areas).

With regard to the former factor, it is worth stressing that the cities in this region have reaffirmed their predominant role not only in terms of their demographic expansion, but also as employment centres (particularly in the case of the service sector), drawing labour from far beyond their respective municipal boundaries. This phenomenon is clearly manifest in figures 15 and 16 (commuting patterns in 1991 and 2001, as represented by the generation and interdependence indexes^v). This evidence corroborates the idea that the influence of the cities can be felt in increasingly farther areas and that the level of inter-city interaction (contributing to the formation of urban axes or systems, as in the case of the Algarve's coastal band) has been on the increase (Marques da Costa; Silva; Marques da Costa, 2003). Indeed, these changes are closely associated with the dynamics of employment and economic activity and, at the same time, with improvements in the accessibility and transport system and in the spatial mobility of the families. All these factors have allowed for the geographic expansion of the commuting patterns and contributed significantly to new patterns of urban-rural relations.

Transport and mobility

The spatial organisation of the Algarve region, which is the result of centuries-old human settlement, exhibits significant imbalances: the coastal areas are highly urbanised and exhibit high population density, while the mountainous inland areas have been experiencing depopulation since the 1950s. This pattern has largely been the result of the fact that, from the 1960s onwards (and particularly after the construction of the Faro international airport in 1965), the process of regional organisation has overwhelmingly built on the exploration of the “sea & sun” binomial.

The construction and creation of transport infrastructure and services are a distinct reflection of the spatial structure of this region: a series of axes that ensure internal accessibility along the coastal areas (Via do Infante, Lagos - Vila Real de Sto. António railway line, EN 125, IC4 and IC27), and a number of axes, transversal to the latter, that ensure external accessibility (Faro airport, IP1/A2 and railway line).

Transport services and infrastructure are structural components of any transport system, providing the basis for all spatial interaction and economic activity. Consequently, the lack of adequate responses to the need for transport severely limits economic growth and the welfare of the population.

Diagnosis of functional and structural tensions: impacts on urban-rural relations

Domain	Potentiality	Strangulation
Land and landscape	Development model causing swift, profound structural changes in the settlement patterns Multi-nuclei spatial organisation (Faro – Loulé - S. Brás de Alportel - Olhão) Housing seasonality	High population concentration in the coastal areas Depopulation of the inland areas
Conservation of nature environmental quality and	Ria Formosa natural park Significant improvements in water treatment, storage, transport and distribution Significant improvements in the treatment of urban solid waste	Disruption of important habitats Biotopes naturalized by Man (e.g., the sobreirais and the dry-land orchards of carob and almond trees)
Tourism and Leisure	Socio-economic structure dominated by the tourist industry Socio-economic structure dominated by the tourist industry Naturally favourable conditions (sun and sea)	Strong seasonality Heavy reliance upon one single “product” (sun and sea)
Agriculture	Increased economic value of the traditional products Exploration of the richest land for specific productions (fresh vegetables, ornamental flowers and plants, subtropical citrus fruits)	Decrease in the share of the agricultural sector, in association with the abandonment of traditional agricultural systems
Employment	Increasing importance of fish farming (including quality products such as oysters)	Increased weight of the tertiary sector, particularly tourism-related sectors (insufficiencies in the remaining sub-sectors) The secondary sector has a relatively insignificant role in the region, - in particular, the canning industry has lost much of its importance in recent years
Infrastructure and accessibility	Improvements in the road network over the past decade (external accessibility)	Intra-regional accessibilities remain insufficient Enormous pressure upon the Faro airport in the summer Insufficient education and health infrastructure Heavy pressure upon the infrastructure, facilities and services at times of especially high seasonal concentration

Source: Based on CCDR-ALGARVE (2004) and AMAL (1999)

Recommendations

In what regards the territorial dynamics of mainland Portugal, despite the continuing tendency towards increasing macrocephaly by the Lisbon and Oporto metropolitan areas, the phenomenon of “coastalisation” has brought about an increase in the importance of Algarve’s southern coastal area.

Generally speaking, the Algarve tourist industry has been evolving in a sustainable manner: an improvement of the quality of the services on offer; greater land use regulation (1^o PROT – 1991; 2^o PROT – 2004); the expansion of the protected areas¹.

¹ Plano de Ordenamento da Ria Formosa, 1991;
Plano de Ordenamento da Orla Costeira entre Sines e Burgau, 1998;

However, the reinforcement of the rural-urban relations requires putting all potential strengths to optimal use, as well as addressing all actual and potential bottlenecks. Hence, what follows is a series of recommendations that are conducive to this territory becoming an attractive and sustainable alternative to the current metropolitan areas.

Domain	Recommendations
Land and landscape	<ul style="list-style-type: none"> - Promotion of integrated urban development strategies sensitive to social and functional diversity; - Protection of the soil as the basis of life for human beings, fauna and flora, through the reduction of erosion, soil destruction and overuse of open spaces; - Improved co-ordination of development measures which have an impact on landscapes.
Conservation of nature environmental quality and	<ul style="list-style-type: none"> - Preparation of integrated spatial development strategies for protected areas, environmentally sensitive areas and areas of high biodiversity such as coastal areas and wetlands balancing protection and development on the basis of territorial and environmental impact assessments and involving the partners concerned; - Development of strategies at regional levels for risk management in disaster prone areas. - Promotion of interregional cooperation for the application of integrated strategies for the management of water resources, including larger ground water reserves in areas prone to drought and flooding, particularly in coastal regions; - Application of environmental and territorial impact assessments for all large-scale water management projects.
Tourism and Leisure	<ul style="list-style-type: none"> - Preservation and creative development of cultural landscapes with special historical, aesthetical and ecological importance - Development of integrated strategies for the protection of cultural heritage which is endangered or decaying, including the development of instruments for assessing risk factors and for managing critical situations;
Agriculture	<ul style="list-style-type: none"> - Improvement of the balance between water supply and demand, particularly in areas which are prone to drought. Development and application of economic water management instruments, including promotion of water-saving agricultural methods and irrigation technology in areas of water shortage;
Employment	<ul style="list-style-type: none"> - Supporting the establishment of innovation centres as well as co-operation between higher education and applied R&D bodies and the private sector, particularly in economically weak areas.
Infrastructure and accessibility	<ul style="list-style-type: none"> - Promotion of better accessibility in cities and the region through an appropriate location policy and land use planning that will stimulate mixing of urban functions and the use of public transport; - Improvement of public transport services

Source: based in European Commission (1999)

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ⁱ Urban centre: a continuum of parishes (*freguesias*) that individually satisfy at least one of the following criteria: i) population density > 500 persons/Km²; ii) comprehend, fully or in part, a particular village/town/city whose resident population is equal to, or exceeds, 5,000 persons and in which at least one of the following ratios: “Population of the interception of the parish with the village or town or city/Population of the parish” or “Population of the interception of the parish with the village or town or city/Population of the village or town or city” is equal to, or above, 50%; iii) physically include the seat of the municipality.

ⁱⁱ In their study entitled “Sistema Urbano: áreas de influência e marginalidade funcional”. (INE, 2004)

ⁱⁱⁱ Data taken from DETEFP, 1999

^{iv} $LQ = [(E_{ia}/E_a)/(E_i/E)]$, where E_{ia} = employment in sector I in municipality a
 E_a = total employment in municipality a
 E_i = employment in sector i in country
 E = total employment in country

^v The former (generation index) indicates the intensity of the movements of economically active people from one municipality to another for reasons having to do with work, while the latter (interdependence index) indicates the main destinations of those movements.