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PLANNING FOR SHRINKING CITIES IN PORTUGAL

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ABSTRACT

This thesis is about shrinking cities and planning. Urban growth has been a synonym of success throughout the world; and even considered the true and sole reason for planning. Even though shrinkage is as old as growth, it has become more visible since unquestionable facts started to challenge conservative and established planning paradigms. Consequently, the theory of shrinkage is still under development, gradually building up. Portugal is not an exception to this rule. This presents an opportunity to contribute to the theory of shrinkage, to find original evidence about shrinkage in Portugal and investigate how planning is dealing with this issue.

The first part of the dissertation corresponds to a literature review to assemble a theoretical framework for shrinkage and its relation with urban and regional planning. The second part of the research focuses on the Portuguese case, first on a macro scale and then materializing the city scale of shrinkage. In the third part, cluster analysis is used to classify the Portuguese shrinking cities. Finally, plan content analysis is applied to national, regional and local spatial planning instruments to determine responsiveness to shrinkage.

The study is completed by revisiting the most important questions both in the theoretical discussion and the empirical research. Together with the theoretical analysis, the results comprise, firstly a broad picture of shrinkage; secondly, a typology of shrinking cities; and thirdly, an account of the awareness and approach to shrinkage in Portugal. The research concludes that despite the embryonic character of shrinkage in Portugal there is evidence of its existence, although planning's response does not match evidence found. Recommendations for city policy, planning practitioners and future research on this topic are offered based on the findings.

RESUMO

Esta dissertação de doutoramento é sobre as cidades em contracção e o planeamento. O crescimento urbano tem sido considerado sinónimo de sucesso em todo o mundo, e até mesmo como a verdadeira e única razão de ser do planeamento. Mesmo sendo tão antiga como o crescimento, a contracção tornou-se mais visível desde que factos inquestionáveis começaram a desafiar os paradigmas do planeamento tradicional e estabelecido. Consequentemente, a teoria da contracção ainda está em desenvolvimento, construindo-se gradualmente. Portugal não é uma excepção a essa regra. Isto representa uma oportunidade para contribuir para a teoria da contracção, para obter provas originais sobre a contracção em Portugal e investigar como o planeamento lida com esta questão.

A primeira parte da dissertação corresponde a uma revisão da literatura para criar um quadro teórico para a contracção e sua relação com o planeamento regional e urbano. A segunda parte da investigação concentra-se no caso Português, em primeiro lugar a uma escala macro e, em seguida, materializando a dimensão da cidade em contracção. Na terceira parte, a análise de clusters é utilizada para classificar as cidades Portuguesas em contracção. Finalmente, a análise de conteúdo é aplicada a instrumentos de gestão territorial nacionais, regionais e locais, para determinar a sua resposta à contracção.

O estudo é completado revisitando as questões mais importantes, tanto na discussão teórica como na investigação empírica. Juntamente com a análise teórica, os resultados incluem, em primeiro lugar, um quadro amplo da retracção; em segundo lugar, uma tipologia de cidades em contracção; e, em terceiro lugar, um diagnóstico da consciência e da abordagem à contracção em Portugal. A investigação conclui que, apesar do carácter embrionário da contracção em Portugal, há provas da sua existência, embora a resposta do planeamento não corresponda às evidências encontradas. Com base nas conclusões, são propostas recomendações para a política de cidades, para os profissionais de planeamento e para investigação futura sobre este tema.

RÉSUMÉ

Cette dissertation est une réflexion sur les villes en rétrécissement et l'urbanisme. La croissance urbaine a été synonyme de succès dans le monde entier, et a été même considéré comme la raison véritable et unique pour l'urbanisme. Quoique le retrait soit aussi vieux que la croissance, il est devenu plus visible lorsque des faits indéniables ont commencé à contredire les paradigmes de l'urbanisme conventionnel et établi. Par conséquent, la théorie du rétrécissement est encore en développement, en se formant peu à peu. Le Portugal n'est pas une exception à cette règle. Ce qui est une opportunité de contribuer à la théorie du rétrécissement, d'obtenir des preuves originales sur le rétrécissement au Portugal et d'étudier la façon dont l'urbanisme s'occupe de cette question.

La première partie de la thèse est une révision de la littérature destinée à rassembler un cadre théorique pour le rétrécissement et sa relation avec l'aménagement urbaine et régionale. La deuxième partie de la recherche se concentre sur le cas du Portugal, d'abord sur une échelle macro et, après, en matérialisant la dimension de la ville de rétrécissement. À la troisième partie, on utilise l'analyse de partitionnement pour regrouper les villes portugaises rétrécies. Finalement, l'analyse du contenu est appliquée aux instruments nationaux, régionaux et locaux de gestion du territoire afin de déterminer leur réponse au rétrécissement.

L'étude se termine par une révision des questions les plus importantes soit au débat théorique, soit à la recherche empirique. Au-delà de l'analyse théorique, les résultats comprennent, d'abord, une large vue d'ensemble du rétrécissement; ensuite, une typologie des villes en rétrécissement; et, finalement, un compte rendu de la sensibilisation et de l'approche au rétrécissement au Portugal. La recherche conclut que, malgré le caractère embryonnaire du rétrécissement au Portugal, il y a des preuves de son existence, bien que la réponse de l'urbanisme ne corresponde pas aux éléments de preuve trouvés. Selon les résultats obtenus, on propose des recommandations pour la politique des villes, pour les spécialistes en urbanisme et pour des recherches futures sur ce thème.

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CHAPTER I. Introduction

I.1 Background

Shrinking cities are gradually becoming a focus of attention of urban and regional planning researchers and practitioners worldwide. For the last eight years, a body of inter and trans-disciplinary expertise on shrinkage has developed, as research discovered shrinkage as a blind spot that urged to be lit (Kabisch et al., 2006). German planners were the precursors of the current shrinking cities debate, and are, according to Pallagst (2008), on the brink of developing a ‘German School’ on shrinkage. Notwithstanding, the author argues that, for the most part, these discussions take place in German and are centered on a German epistemic community, with few links to scholars elsewhere. Nonetheless, efforts have been made to improve an international discourse on this topic.

The Shrinking Cities/ Schrumpfende Städte Project, a three year initiative of Germany’s Federal Cultural Foundation, kicked off in 2002. This research and exhibition project sought to expand Germany’s debate about shrinking cities to address new questions and perspectives and placed developments in Eastern Germany in an international context – together with Great Britain, Russia, USA, but also Japan – involving various artistic, design, and research disciplines, searching for strategies for action (www.shrinkingcities.com). For a global panorama, the project evaluated historical population data from more than 8,000 cities, larger than 100,000 inhabitants, in the period from 1950 to 2000 (Oswalt, 2006).

Later, in 2004, the Shrinking Cities International Research Network (SCiRNTM) was founded. Shrinking cities remained an underrepresented topic in international comparative research. This research network is a worldwide research consortium of scholars and experts from various institutions pursuing research on shrinking cities in a global context, which was initiated by the visiting scholars' roundtable at the Institute of Urban and Regional Development, University of California, Berkeley (www.shrinkingcities.org). An international team of researchers is presently investigating experiences and case studies from the United States of America (USA), Mexico, Brazil, Germany, France, United Kingdom (UK), South Korea, Australia, Japan and other countries (Pallagst, 2005; Pallagst, 2008).

Only recently, in 2009, COST¹ Action TU0803 – Cities Regrowing Smaller (CIRES) was created. The main objective of CIRES is to foster the interdisciplinary knowledge of regeneration strategies in shrinking cities across Europe. The network wants to act as a catalyst for innovative solutions to deal with demographic change and urban decline, by promoting the exchange of scientific knowledge in Europe and stimulating original ideas in selected reference cities (www.shrinkingcities.eu). At present 52 scholars from 23 countries are participating in the COST Action. Its main tasks are a synopsis of published research on the subject; theory-practice interface on regeneration strategies; theory building and interdisciplinary communication; and problem solving strategies and best practice database.

Last year, it was also the beginning of the Project SHRINK SMART – The Governance of Shrinkage within a European Context. SHRINK SMART studies how the challenge of shrinkage is met by policies and governance systems in different types of urban regions. The project is based on comparative case studies from seven urban regions throughout Europe (Germany, Great Britain, Czech Republic, Poland, Romania, Ukraine and Italy) and aims at analyzing trajectories of shrinkage, plus challenges for planning and governance. SHRINK SMART is a joint research project funded by the 7th Framework Program/ Socioeconomic Sciences and Humanities of the European Commission (<http://www.shrinksmart.eu/>).

These last two mentioned projects will not generate results before a two year period, at least.

In the end of 2006, when this PhD research started the topic of shrinking cities came into view as a fertile field open to contribution. Whilst studies on Eastern Germany, where urban shrinkage appears in its most dramatic form, occupied a kind of forerunner role, the comparative view on shrinking European cityscapes suffered still from a lack of empirical evidence; furthermore, although shrinking cities existed all over the world, there had not been much of an international discourse on the topic (Kabisch et al., 2006; Pallagst, 2005, 2008),

¹ European Cooperation in Science and Technology.

except from rare examples once more written in German (Bernt and Kabisch, 2003). Likewise, there was not a view or published research on shrinking cities in Portugal.

According to Kabisch et al. (2006), a recent phase of shrinkage began after 1945 and urban growth has been replaced by stagnation and/or shrinkage processes in many countries. It is demonstrated in the *Atlas of Shrinking Cities* (Oswalt and Rieniets, 2006) that more than a quarter of the world's metropolises shrank in the 1990s and that this will persistently augment, regardless of the ongoing parallel urbanization processes in many countries. Kabisch et al. assert that despite having started in Europe's old industrial regions like Northern England, the Scottish Clyde side or Lorraine, and the Rustbelt² in Northern America, shrinkage affects city-regions throughout Europe and world-wide, including Eastern European, Japanese and South African cities. Eastern Germany is a striking example of city shrinkage that is related to dramatic socioeconomic changes after the reunification in 1989.

In accordance, Banzhaf et al. (2006) state that in the last 50 years, about 370 cities with more than 100,000 residents have somehow undergone population losses of more than 10%, in extreme cases peaking at 90 per cent (Âbâdân, Iran). Banzhaf et al. put emphasis on the fact that, between 1950 and 2000, the number of shrinking cities has expanded by 330 per cent, while the increase in the number of cities with more than 100,000 residents has amounted to 240 per cent. In addition, the number of shrinking cities has increased faster than the number of boomtowns. Shrinking cities are mostly located in Western industrial countries, especially in the USA (59), Britain (27), Germany (26), Italy (23), and increasingly in former Warsaw Pact countries, like Russia (13), Ukraine (22), and Kazakhstan (13). There have also been an above-average number of cities in South Africa (17) and Japan (12).

Wiechmann (2008b) argues that shrinking cities pool in certain areas, such as the USA-American Rustbelt, Japan and especially Europe. Regarding the latter, the author adds that most European countries undergo an increasingly aging population and internal migrations from backward areas to more competitive locations. Wiechmann highlights that, between 1995 and 1999, the highest annual loss of population (in relative numbers) was verified in northern Finland, in central and northern Sweden, and in large parts of the Central and Eastern states. Considerable losses of population also took place in southern Italy, northern Spain, the central regions of France, Scotland, and **in the Alentejo in Portugal** (EU Commission, 2004 referred to by Wiechmann, 2008b).

² The Rustbelt is also known as the Manufacturing Belt. Its designation is attributed to the decline of industry in the 1970s, when many of the region's factories have been closed, resulting in shuttered buildings guarded only by rusting gates.

Wiechmann also refers to the Urban Audit³ to stress that out of 220 large and medium-sized European cities, 57 per cent lost population in the period from 1996 to 2001 (EU, 2007). Among them, the author draws attention to 22 German (remarkably 14 from the western part of Germany and only 8 from the eastern part), 19 Italian, 11 British, and 5 Spanish cities. Moreover, in Central and Eastern European countries, 53 out of a total of 67 cities shrank. Finally, the 10 cities with the highest relative loss of more than 1.75 per cent annually were: Halle an der Saale, Frankfurt an der Oder, Schwerin, Magdeburg (all in the eastern part of Germany), Bacau, Cluj-Napoca, Piatra-Neamt, Targu Mures (all in Romania), and the special cases of Venice (Italy) and **Lisbon (Portugal)**.

In sum, the first results of the international research show that the location of shrinking cities differs from country to country (Pallagst, 2008). For instance there is: a north-south divide, with shrinkage in the northern parts of the country, in the United Kingdom; shrinkage in the center of the country, away from European transportation networks, in France; an east-west divide, in German city shrinkage, and the Rustbelt cities are the most affected by shrinkage in the US, as mentioned previously in this chapter. Besides, the locales of shrinkage pointed out by Pallagst are the post-socialist countries (Latvia, Bulgaria, Romania, Hungary, Slovakia, and the eastern part of Germany), the northern countries (Finland and Sweden), and Southern European countries (Italy and Spain). Beauregard (2009) divides shrinkage locations as follows: large and medium-sized, formerly industrial, cities, like Youngstown (OH), Erie (PA), Flint and Detroit (MI), Bridgeport (CT), Camden (NJ), and Rochester (NY), across the USA; mining towns in Korea; cities in Eastern Germany; small communities in Mexico; resource-based centers in Australia and Canada; and industrial areas in France and the UK.

Beauregard remarks that even on the subject of the so-called resurgent cities, commentators have noticed the deep inequalities that go together with prosperity (referring to Fainstein et al., 1992; Hamnett, 2003; Marcuse and van Kempen, 2000; Montiel et al., 2004). From a broad perspective, Storper and Manville (2006) find that cities are not dying, but neither are they 'coming back'—if by coming back we mean returning to the supposedly untroubled days of extreme density and heavy manufacturing. Storper and Manville are realistic and say that cities are evolving, like most complex systems, but it is easy to see in every downturn a crisis and in every upturn a renaissance. Markusen and Schrock (2006) agree that cities of

³ The Urban Audit is a database that provides European urban statistics for 258 cities across 27 European countries. It contains almost 300 statistical indicators presenting information on matters such as demography, society, the economy, the environment, transport, the information society and leisure. The Urban Audit was conducted at the initiative of the Directorate-General for Regional Policy at the European Commission, in cooperation with Eurostat and the respective national statistical offices (<http://www.urbanaudit.org>).

similar size and stature may diverge rapidly from each other in function and some will find themselves overshadowed by upstart cities.

Aging is the predecessor of population decrease. In keeping with the *World Population Aging 2009* report, population aging is: unprecedented, a process without parallel in the history of humanity; pervasive since it is affecting nearly all the countries of the world; and enduring. Most of all, population aging is profound, having major consequences and implications for all facets of human life: economically, it will have an impact on economic growth, savings, investment, consumption, labor markets, pensions, taxation and intergenerational transfers; socially, it influences family composition, living arrangements, housing demand, migration trends, epidemiology and healthcare services; politically, population aging may shape voting patterns and political representation. Particularly developing countries have a shorter time to adapt to the changes associated with aging, thus it is urgent to begin taking steps to face the challenges and make the best of the opportunities that population aging brings (UN, 2009).

Although the center of gravity of shrinkage has been the West, especially Europe and the USA, it is spreading throughout the world. The number of shrinking cities is increasing, faster than the number of growing cities, despite it all. Shrinkage is not found exclusively in the north, center or south, east or west of the globe or of an individual country, in large, medium or small-sized cities, or in specialized cities. The trend will increase: in the future Europe will barely participate in worldwide population growth and developing countries will be affected. Some countries should even prepare for a general decrease in resident population. In this picture, Portugal has been occasionally pinpointed, but there is not a clear view on the subject of shrinkage and its characteristics in the country.

I.2 Research scope and conceptual discussion: from practice to theory

This research focuses on shrinkage as a valid path of urban development, together with growth, slow growth or stagnation, aiming at contributing to the translation of practice of shrinkage into theory of shrinkage, and adding to the international comparison on the subject.

In contrast to the profusion of research about urban growth and its patterns, there is not a “theory of shrinkage” (Hager and Shenkel, 2000 referred to by Rink and Kabisch, 2009). Rink and Kabisch add that even the “concept of shrinkage” has to be developed as a real concept to overcome the current situation and its focus on a collection of symptoms. Literature on shrinkage is not clear about what place does shrinkage occupy in urban development. It is often confusing, because whereas for instance population growth naturally leads to urban growth, population decrease does not immediately lead to urban shrinkage. It is not fortuitous that the expression “population decline” is more commonly used than simply “decrease”. It carries the negative weight of a symptom of an undesirable *disease*: urban shrinkage. Thus, even if exceptions exist, the correspondence between the population trend – decrease and the logical spatial development – shrinkage – is avoided or delayed.

Taking the background presented earlier into consideration, we developed a theoretical framework for shrinkage and for this research. We believe that, bearing in mind the facts and the line of reasoning that led us to this point, shrinkage should stand shoulder to shoulder with growth as a possibility for urban development. As urban and regional planning students, and as much as we keep forgetting it, one of the first principles we are taught is that growth is not, on its own, a synonym for development. Growth can merely mean horizontal or vertical expansion, whilst development should mean progress, evolution, qualitative leap, transition from one state to another, so that the following is always more perfect than the previous one. Thus, we consider that urban development may have different spatial manifestations – growth, slow growth, stagnation and shrinkage. On the other hand, compactness, dispersion, sprawl (see arguments from Siedentop and Fina (2008) in Chapter II), and/or polycentrism, etc. can occur in parallel with all the above (Figure 1).

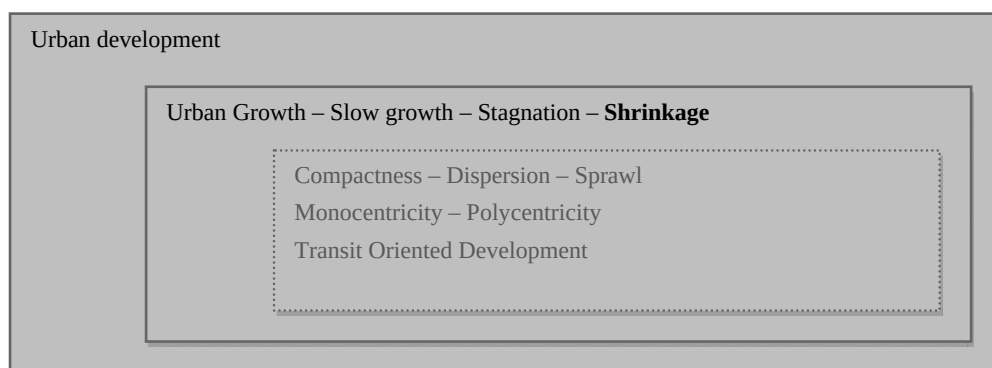


Figure 1. Reference framework for research

Population decrease is, all the same, the key issue behind shrinkage, but only as real (not unrealistic expectations) population growth should bring about urban growth, or slow growth. The characteristics of shrinkage usually put forward in the literature are not much more than the immediate consequences of population decrease, in the absence of any sort of spatial planning positive reflection or intervention. This is the reason for focusing on population decrease rather than in economic decline (see Chapter II – Turok and Mykhnenko (2007)). In the end people follow resources, and there is no proven (perfect) correlation between population decrease and GDP decrease: it is possible to find jobless economic growth jointly with population decrease (see Franz, 2004). Once again people seem to be following jobs, or not quite if we reflect on the way new technologies and systems of infrastructure provision are supporting the splintering of metropolitan areas (Graham and Marvin, 2001).

The focuses of this research are not the causes of population decrease or even migration. Still, some of the most common causes identified in the literature, such as suburbanization, are presented in order to illustrate the debate. Causes are not a main concern because: first, they constitute a study field on their own; and second, they are more significant if one wants to prevent or reverse population decrease. Storper and Manville (2006) assert that urban studies have always been carried out with a curious mix of pessimism and utopianism. Besides, the influence of spatial planning in population redistribution is very modest (Bontje, 2001). Thus, it is more important to determine the consequences of population decrease and identify action areas, rather than establish causal relations. Our perspective is a positive one, planning should not be a one way street leading to growth: some territories will indeed have population decrease and/or stagnation and there is a need to plan shrinkage so that shrinkage may become a synonym of territorial development.

Finally, population decrease or shrinkage happens in parts of or in whole cities, city-regions, metropolitan areas, regions, urban areas, rural areas, etc. However, it can happen that when referring to shrinkage, the word “urban” precedes it, because either it is the terminology used by a specific author or it is meant to clarify the spatial nature of the phenomenon. The same applies to the expression “shrinking cities”. The concept is young and as cities, metropolitan areas and other concepts used in urban and regional planning frequently suffer at a certain point from over or under contextualization. Straightforwardly, shrinking cities are an umbrella concept that includes all possible territories but that catalyzed debate around this matter and that we choose to keep, so that its importance does not get lost in generalization. For the sake of this research, we will consider shrinking cities as territories first and foremost experiencing population decrease, due to various reasons alone or combined, and that may or may not have started to spatially shrink.

I.3 Research questions and hypothesis

Set against this background, scope and conceptual discussion, three strategic objectives bring motivation for the development of the thesis: to contribute to the construction of the theory of shrinkage; find original evidence about shrinkage in Portugal; begin to understand the Portuguese planning's system awareness of shrinkage.

In this context, the research question and hypothesis underlying this thesis are as follows.

Research questions: Is there evidence of population decrease and/or shrinkage in Portugal?
If so is population decrease and/or shrinkage a reality in cities? How can we describe these shrinking cities? How do spatial planning instruments deal with (eventual) evidence found?

Research hypothesis: Although there is evidence of population decrease and/or shrinkage in Portugal, the Portuguese spatial planning instruments and policies documents have either a disavowal or reactive character.

To pursue the research questions and hypothesis the following methodology was devised.

I.4 Methodology

In order to test the research hypothesis, the methodology is based on: first, a literature review; second, for the Portuguese case, on a quantitative and qualitative statistical data analysis; third, on a cluster analysis of the Portuguese shrinking cities; and, fourth, a content analysis not only of national and regional planning documents, but also for selected shrinking cities.

The research starts with a literature review looking for a theoretical framework for shrinkage. This literature review includes two main fields. The first field refers to the 21st century shrinking city, whereas the second research field regards planning and shrinkage. The aim of the former part of the literature review is to throw light on growth in opposition to shrinkage; explore the most visible indication of shrinkage – population decrease; characterize the immediate characteristics of shrinkage; and, finally, define what is usually meant by shrinking cities and collect the typologies of shrinking cities put forward in the literature. The aim of the latter is to search for planning's renewal mechanisms and fields of action concerning shrinkage, as well as approaches, strategies and recommendations regarding the phenomenon of shrinkage. An up to date perspective is privileged in the theoretical analysis.

The literature review provides the necessary conditions for the empirical analysis. The first part of the empirical analysis aims at producing an original view on shrinkage in Mainland Portugal, especially at the city level. Population is used as the main indicator to diagnose

shrinkage but other variables/indicators are used in order to proceed with the cluster analysis. First, national general population trends are presented together with official future population forecasts for 2060. Second, a regional analysis helps in setting the context. Then, cities and its surrounding regions come into view as an appropriate geographic level of analysis. Finally, cluster analysis is applied to cities, municipalities and extended regions to find a classification of the Portuguese shrinking cities that helps to portray this phenomenon with further detail.

On the basis of the results obtained in the first part of the empirical analysis of the thesis, a content analysis is applied to the spatial planning instruments of selected cities, not before sketching a national and regional frame of reference on the topic of shrinkage. The aim of the second part of the empirical analysis is to assist in the assessment of whether and how existing land use and development policies align with the preceding findings. Finally, bearing in mind the theoretical and empirical analysis, it is possible to discuss both planning and shrinkage and shrinkage in Portugal in order to make the closing comments and the most important conclusions of the thesis. In the end, recommendations enable progress in this field of planning and further discussion about shrinkage, planning policy and planning practice.

1.5 Structure of the Thesis

This dissertation is structured in seven chapters. It starts by presenting the background and motivation for the research theme. Chapter I defines the scope, research question, research hypothesis and methodology of the thesis. The following two chapters present the literature review focusing on two main fields the 21st century shrinking city and planning for shrinkage. Chapters II and III provide the necessary backdrop information for proceeding with the empirical work in Chapters IV, V and VI. Chapter IV presents general population trends, recent population trends in Portugal and future population forecasts for Portugal to support a demographic and economic/labor macro scale analysis that precedes the characterization of the geography of shrinking cities in Portugal. It follows a description of these cities. Chapter V uses cluster analysis to propose a typology of shrinking cities in Portugal, taking into consideration three geographical levels: city, municipality and extended region. The clusters are described accordingly. Chapter VI accesses the spatial planning instruments and policies in selected shrinking cities in Portugal, in view of its respective regional and national framework, through content analysis of documents. Chapter VII discusses the main findings of the thesis, regarding planning, shrinkage and the Portuguese case, and lastly offers conclusions about the research and recommendations for city policy, planning practitioners and future research on shrinkage.

CHAPTER II. Understanding the 21st century shrinking city

The present chapter is structured to present a debate about the 21st century shrinking city.

As an introduction, we first address the issue of growth versus shrinkage, discussing the customary doctrine of growth both in planning theory and in planning practice. Afterwards, we focus on criticism toward urban growth, to stress that growth is perceptibly not flawless. Similarly to shrinkage, there are disadvantages as well as advantages related with growth.

Secondly, we look at the most visible symptom of shrinkage – population decrease – and its causes, especially concentrating in fertility, mortality, aging and migration. Then we focus on out-migration, its contexts, reasons and patterns, giving special attention to economic factors, suburbanization, and planning policy.

Thirdly, we identify the consequences of population decrease, which roughly constitute the characteristics of shrinkage in the absence of adaptive planning intervention. We specifically look at the existing definitions of shrinking cities, or shrinkage, and respective evolution in recent times. We also review several macro level policy documents to assess the level of awareness and understanding of the issue of shrinking cities. Finally, we present a number typologies of shrinking cities proposed within national contexts, as well as global typologies, found in the literature on shrinkage.

II.1 Growth vs. Shrinkage

II.1.1 Introduction

Shrinkage is not a recent phenomenon; historically, it has always been an aspect of urban settlement, as foreseeable as growth. Wars, natural disasters, environmental disasters, epidemics, and economic, political, and social transformations have affected population settlement and demographic change everywhere. Growth and shrinkage were processes of almost matching importance until the beginning of the modern age: an exceptional phase of urban growth set in since the 19th century, causing unparalleled urban population growth. Long past the industrial revolution, at the end of the 21st century, this era is expected to end. An increasing number of cities and regions are declining, or rather shrinking, since the middle of the 20th century, a number forecasted to augment. Bourne and Simmons (2003) emphasize that these demographic pressures and inequalities are not likely to be cyclical; they will instead become more and more intense.

Growth, as shrinkage, is becoming ever more disproportionately distributed geographically. Oswalt and Rieniets (2006) argue that, although urban population as a whole is decreasing in several countries, these imbalances will increasingly be found more within than between countries. In their words: «the poles of growth in individual countries are moving closer together, while the peripheral areas dependent or detached from them are deteriorating». Thus, geographical polarization within countries and cities will become even more striking. The authors illustrate: living conditions in Chinese metropolises such as Shenzhen and Shanghai, for instance, are gradually more similar to those of large cities in developed countries like London or Tokyo, while the differences between metropolises and rural peripheries in China are escalating.

Planners and decision makers will be confronted with shrinkage as commonly as in earlier periods, while it regains its place alongside growth, but this transition will not be done without some level of commotion. If in the future, the processes of growth and shrinkage will coexist with intensifying disparity; this will entail reconsideration of the established doctrine of growth in order to efficiently manage it. Theoretical debate on urban and regional planning and common practice have generally been about successful regions, cities or particular urban areas or alternatively about bringing success, and by this it is usually meant growth, to the least fortunate, unprivileged territories. Therefore, the conditions or causes, consequences and patterns of development have normally been discussed by referring either to global cities, such as New York, London and Tokyo, or other towns and cities with surprising growth rates

such as thriving urban centers in predominantly rural regions or the mega-cities of the developing world; or in relation to the emergence of edge cities (Couch et al., 2005).

Shrinkage has been neglected by planners and decision makers, as if it were a dysfunction in development's cycle, but it is not a passing phase of urban development, it is a part of this development that has been uncared for. As pointed out in Chapter I, statistics demonstrate that the number of shrinking cities has been increasing constantly during the 20th century, especially since the 1950s (Rieniets et al., 2006). More than one out of every four large cities in the world lost population during the 1990s, and population forecasts suggest that this number will increase, although urban growth will still dictate global population change in the near future (Rieniets, 2005). However, Rieniets et al. (2006) find that by 2050, forty three countries will experience a combined population decline of 60 million people. For the reasons aforementioned, shrinking cities are a reality which we cannot allow ourselves to disregard any longer, because to do so would be negligence.

II.1.2 Planning and the doctrine of growth

Over the last three centuries, urban growth became the final goal for regions and cities, and apparently the only way forward for spatial development, being at the centre of urban and regional planning's international debate. Popper and Popper (2002) argue that the new field of "planning" emerged in the 20th century purposely as a means of controlling/managing urban growth and its consequences. According to Rieniets (2005), our understanding of planning is closely connected to an assumption of ongoing demographic and economic growth; a result of urbanization associated with industrialization and its demand for solutions. Thus, urban planning has had a quasi causal relationship with urban growth – methods, visions, and values are only envisioned based on the supposition of continuous growth (Rieniets, 2005).

Not only theories but also practices of urban and regional development usually tend to emphasize the desirability, or the obligation, of growth. According to Bontje (2004), a review of theory and policy documents can soon lead to the impression that a city or region would be doomed when it does not possess a growing population, a growing economy and/or a growing national or international importance. For instance, city and regional plans, local zoning ordinances, state land-use regulations, and environmental impact reviews, all aim at managing rising population and new construction (Popper and Popper, 2002). Leo and Brown (2000) and Bontje (2004) call it *growth obsession*.

Leo and Anderson (2006) assert that for (North American) civic leaders there is no such thing as bad growth nor too much of it. Leo and Anderson find that the widespread impression is

that growth is the elixir that cures all ills, and that any city that is not growing rapidly is being “left behind” and is “off the map.” The city is seen as a “growth machine” (Logan & Molotch, 1996) and is valued only if it conforms to that image. According to the growth machine theory, promoters of growth legitimate their actions with an ideology of value-free growth, with the claim that development is a universal good because growth increases cultural opportunities for residents, expands the tax base, and creates jobs (Troutman, 2004). However, this is not exclusive to North American countries, or even to Western countries.

For many years, the costs and consequences arising from suburbanization were rarely considered. On the contrary, the benefits of suburban growth—increased tax revenue and investment in public services and infrastructure—received the bulk of attention and set the scene for continued suburban growth (Byun and Esparza, 2005). Leo and Anderson (2006) state that previous research on the effects of urban form on the public costs of investment, and operation and maintenance of network-related technical infrastructure have more often than not assumed a paradigm of growth. On the other hand, the authors also refer that most current studies are intended to show that substantial cost savings can be achieved by increasing urban densities and locating new development close to existing built-up areas.

Leo and Brown (2000) and Bontje (2004) find that the possibility that continuous growth is an impossible, and sometimes undesirable, situation for any city or region had been accepted to a very limited extent until recently. The possibility of decline or even slow growth is admitted, provided it lasts for a short period of time. Bontje (2004) regards the stages of urban development model as the best-known example. This model is based on one phase of international economic development and considers that urbanization is a cyclical process and that decline will, in the end, make way for new growth. According to Rink and Kabisch (2009), even authors who approach the topic in a more unbiased manner, interpret shrinkage only as “a chance for another growth”. Despite all the facts described, shrinkage is not a topic of much discussion in most OECD countries where the planning paradigm of growth has dominated the scene for many years (Martinez-Fernandez and Wu, 2006).

Whether it is called declining growth, negative growth, urban decline, urban shrinkage or even slow growth, whether it happens in a region, city or areas of those regions and cities, population decline and what it entails is seldom considered acceptable. Thus, the main dilemma of dealing with urban shrinkage from a planning perspective is that urban development is strongly interlinked with growth, leading to its perception as a threat (Banzhaf, 2006) or a taboo (Oswalt and Rieniets, 2006), a pathology at the least (Leo and Brown, 2000), or a stigma, not fitting into the ideal of decision makers (Beauregard, 2003). Shrinkage processes are often referred to as the cause, or the result of low productivity, low

wealth, low quality of life, and social conflicts. Within administrative systems, traditionally oriented toward growth objectives, shrinkage is generally considered to be intractable and policy makers and experts are unable to cope with the issue in a positive way (Wiechmann, 2008b).

The most common reaction toward urban shrinkage, not very often leading to success, used to be maintaining a strategy of economic growth with the aim of regaining population growth in the shortest term possible (Banzhaf, 2006). According to Borries and Böttger (2004), urban shrinkage is often described as a problem of building space, which can be solved, following the traditions of town planning, with building activity. Nevertheless, for the town planner, it should be primarily a shift away from the paradigm of growth. The authors believe that the growth based discipline of town planning cannot address the phenomenon of urban shrinkage, because it is as much a cultural as a psychological problem. Neither the paradigm of growth-driven development nor the well-established spatial planning instruments are helpful in a situation of shrinkage (Banzhaf et al., 2006).

II.1.3 Criticism about growth

Despite this doctrine, urban growth is not immune to criticism in planning or in society in general, and the argument that it can never do wrong is not utterly accurate. In this critical debate, suburbanization and particularly urban sprawl have been the most targeted issues.

Bithas and Christofakis (2006) recognize that the excesses observed in some of the sizes and densities of cities have been accompanied by the start of severely alarming malfunctions, such as atmospheric pollution; creation of fluid and solid waste; traffic congestion; criminality; and social alienation. The authors believe that, in the light of these problems, the hypothesis that the marginal social benefits deriving from additional growth of cities are considerably smaller than the respective social costs has now a more convincing ring to it and, consequently, the additional growth of urban systems remains under systematic dispute. Van den Berg et al. (1982) point out that there are negative consequences from growth and it must be feared that they will get worse as the scale of suburbanization becomes larger; the worst problems being those relating to traffic.

Additionally, urban growth is frequently said to be the cause of negative effects such as the loss of outer open spaces for current and future generations (Garcia and Riera, 2003). Khakee and Barbanente (2003) also reinforce the notion that global environmental problems are the result of a combination of population growth and shrinking stock of natural resources. Chukwuma (1996) asserts that nature and wildlife may tolerate environmental insults only to a limited extent that is not proportionate with pressures exerted by population growth, global

economic and technological development. In the author's point of view, a transition to sustainability requires, first of all, voluntary social restraints on both rising industrial and population growth. Consequently, one important environmental paradigm asserts that limits should be set to growth, because population growth has been mainly concentrated in urban areas, which have been the conventional nerve centers for trace element pollution.

Moreover, Tietjen (2007) supports that territorial cohesion will become more and more a question of negotiating growth and shrinkage rather than achieving equal growth everywhere. Thus, Tietjen understands development, not as growth, but as a matter of achieving maximum quality of life for a maximum number of people. Hence, shrinkage is considered to challenge both the growth paradigm and the spatial equality paradigm that have been the guiding principles of urbanism during the welfare state. One particular relevant issue concerns social consequences of growth, namely of zoning. Zoning pushes and pulls people through land use, raising property values and thus exacerbating social segregation between rich and poor.

The most serious urban growth criticisms come about when sprawled suburbanization takes place. The consequences or the negative impacts of sprawl have been vastly debated. It should be noted that although in the past suburbanization and sprawl occurred mostly in conditions of growth, partial or selective suburbanization processes can occur in conditions of shrinkage (see for instance Siedentop and Fina, 2008; Chapter III). Despite the fact that there is still no absolute definition of urban sprawl, it is usually portrayed as an inefficient, because resource wasteful, land use pattern, which takes in almost every possible development with negative impacts, and is, sometimes judgmentally, compared to the *compact city ideal*. There appears to be a broad consensus among planning and urban scholars that urban sprawl is a large and complex, not easily remedied, problem responsible for a number of negative consequences (Howell-Moroney, 2008).

Beside the issues of traffic congestion and environmental degradation identified previously for urban growth, urban sprawl is associated with high infrastructure development costs. Sequentially, the higher resource consumption, consequence of urban sprawl, sets the stage to even greater damage of environmental conditions. According to Dieleman and Wegener (2004), a range of unintentional consequences of this type of urban growth and expansion are brought forward in the literature; most prominent among these are: (i) disinvestment in urban core areas and central city decline; (ii) reliance on the use of private cars – auto-dependence – and therefore a growing number of vehicle miles travelled, road congestion and decline of air quality; and (iii) loss of open space and scenic areas, agriculturally valuable or environmentally sensitive, in and close to metropolitan regions.

In the inner city, the urban fabric becomes perforated with increasing vacancy, run-down spaces and a generally deteriorated urban environment, characteristics not very different from others which can be identified in shrinking cities (Couch et al., 2005). The poor transportation accessibility and longer trips can, in turn, constitute spatial obstacles in the pursuit of economic opportunities, first and foremost for people relying on public transport. This sometimes called *ugly* pattern of development is, in addition, considered as the cause of decline of civic culture, and even obesity. Couch et al. (2005) highlight that urban sprawl exhibits combined low levels of eight dimensions – density, continuity, concentration, clustering, centrality, nuclearity, mixed uses and proximity – concepts which largely compose the base of the current generally acknowledged best practices in planning.

The other side of the discussion of the last decades is the acknowledgment of flaws in growth. Nelson and Peterman (2000) note that in the past four decades growth management has been equated together with growth control. Growth controls seeks to limit growth, while growth management allows growth and seeks to alleviate its impacts, attempting to improve the ordering of development to improve outcomes. Even if only fairly successful, Nelson and Peterman feel that communities engaged in growth management should out-perform other communities in overall economic output. Since the late 1990s, the smart-growth movement emerged in planning theory and practice driven by the growing concern that the established development pattern – growth and especially sprawl – was not in the long-term interest of cities.

Rink and Kabisch (2009) argue that, nonetheless, the conceptual results sketched out during this decades-old discussion about the “boundaries of growth” remain somewhat limited. Thus, shrinkage or shrinking cities continue a sensitive matter when planning is concerned. From Beauregard’s perspective (2003), a focus on urban shrinkage would form a counterpoint to the literature on urban growth. At this point, we may already conclude that both urban growth and urban shrinkage have strengths and weaknesses posing greater or smaller opportunities and threats to the achievement of diverse planning goals and general aspirations. As Leo and Anderson (2006) cunningly put it: the only ill-equipped bane is growth talk and the policy illusions it conveys.

II.2 The most visible symptom of shrinkage: population decline

II.2.1 Introduction

What identifies the 21st century shrinking city? First and foremost, the term shrinking city describes a symptom: perceptible population loss, behind which a variety of entwined cause-effect processes can be concealed.

Turok and Mykhnenko (2007) argue that, even though it does not provide a full depiction, population is a useful indicator of urban change: firstly, because consistent economic data across space and time is frequently unavailable; and secondly, because population is linked with economic change, both as cause and effect, particularly over the longer-term. The authors consider, on the one hand, that population change is an important consequence of urban conditions, especially the availability of economic opportunities, and, on the other hand, that population change is also an important influence on urban economic conditions.

The former statement is based on the fact that migration is a response to differences – the greater the differences, the higher the compensation of migration – in employment or quality of life between places, although the process of adjustment is not always efficient. The later assertion is based on evidence found in the literature by Turok and Mykhnenko that:

- Population size and deep labor pools increase agglomeration economies and productivity.
- Loss of population has caused wider economic and environmental problems for cities.
- Shifts in the level of population affect local jobs through demand for consumer goods and services, housing, schools, etc.
- Changes in working age residents also affect the supply of skills, which may influence mobile investment decisions.
- The composition of the new population can have an important bearing on the scale and nature of the economic impact.

Prior to characterizing, defining and typifying shrinking cities, we will try to demonstrate the magnitude of population growth and decline in general using recent reports from the United Nations (UN), Organization for Economic Co-operation Development (OECD), International Labour Organization (ILO) and other sources.

Despite the fact that 2007 was the first year in human history that more people live in urban areas than in rural areas and even regardless of the uninterrupted population growth worldwide, a significant population loss has already occurred in some cities and regions in Europe, North America, South Africa, and Central and East Asia, as we mentioned earlier. The phenomenon is predicted to spread throughout the world in the future. The world is

undergoing a paradigm change due to low birth rates and the ensuing aging society. Fertility rates have diminished in practically all OECD countries to levels that are well below those needed to secure generation replacement⁴ (OECD, 2003). Especially because of the decline in fertility rates, but as a result of the increase in life expectancy in a rising number of countries, the world population will age much faster in the next decades than in the past (ILO, 2002; UN, 2007).

All through human history, the growth rate of the world population was in general very low. As mortality started to decline in the 17th or 18th centuries, growth rates began to increase slowly. The world population growth rate rose rapidly in the 20th century, reaching a peak at 2 per cent per year in 1965-1970 (UN, 2007). This peak was followed by a decline in the growth rate of the world population, mostly as a consequence of the reduction of fertility in the developing regions, so that it reached 1.17 per cent per year in 2005-2010 and is expected to drop to 0.36 per cent per year by 2045-2050. Nonetheless, because fertility decline did not take place simultaneously in all countries, the pace of population growth still diverges appreciably. Therefore, while the population of the more developed regions is rising at an annual rate of 0.28 per cent, that of the less developed regions is increasing almost five times as fast, and the least developed countries as a group are experiencing even more rapid population growth, at 2.37 per cent per year. Such disparities, although to some extent soothed, are predicted to continue until 2050.

Around 2050, also according to the UN (2007), the population of the more developed regions will have been declining for about 20 years, whereas in the less developed regions it will still be rising at an annual rate of 0.44 per cent. The population of the least developed countries will probably be increasing at an annual rate of 1.24 per cent in 2045-2050. This rate, if maintained, would lead to a doubling of the population every 56 years. Increases in the world population are mainly concentrated in a few countries, generally the most heavily populated. Eight countries—India, Nigeria, Pakistan, the Democratic Republic of the Congo, Ethiopia, the United States of America, Bangladesh and China—are expected to account for nearly half of the world's anticipated population increment, during 2005-2050 (UN, 2007). In addition, migration can attenuate or aggravate population decrease, and consequently aging. Whether tribal, national, class or individual, migration has taken place all throughout history and in the greatest variety of circumstances. This process of population redistribution is influenced by a complex set of factors which Bontje (2001) groups in economic, socio-cultural, and demographic and policy factors.

⁴ The Total Fertility Rate (TFR) needed to secure the replacement of generations is approximately 2.1.

The following subsection will discuss the causes of population change: low fertility rate, high life expectancy, and migration.

II.2.2 Causes for population decline

Fertility, jointly with mortality and migration, is one of the major determinants of a country's population (growth and decline).

Traditionally, concerns about fertility have focused on excess fertility, largely in developing countries, and on its implications for resources, mainly for natural and environmental ones. Sathiendrakumar (1996) warns that the problems created by the increase in population in Third World countries traverse international boundaries. Thus, unless something is done to control the birth rate in the developing countries, the industrialized countries will face an influx of economic refugees, in search of a better life. We will come back to this subject later. However, OECD countries are struggling with the opposite problem: fertility has been declining for several decades (for the most part since the 1970s) to levels that are below those needed to guarantee generation replacement. Still, there was a differentiated pace of decline.

Some of the OECD countries that were at the bottom of the fertility league just a few decades ago are now close to the top, and vice versa. In Nordic and English-speaking countries, the decline in fertility rates started earlier but then stabilized or reversed, probably due to social policies, but in Southern and several Continental European countries, the decline commenced later and then proceeded much faster (OECD, 2003). Referring to German experience, Strohmeier and Bader (2004) state that the fall in births since the mid-1960s and the resulting low birth rates reflect irretrievable societal changes, which gave women hitherto unheard possibilities for shaping their lives. The authors argue that changes have been accompanied by traditional – family-hostile – social policy designed to relieve mothers from the need to work without offering adequate child care.

Thus, there is a persistent gap identified in many OECD countries between realized and desired fertility, with the latter tending to remain clustered around the two-child norm. Furthermore, there are differences in the level of fertility rates among women with different characteristics, namely: higher fertility among non-working women; among women working part-time, those living in married couples and those coming from ethnic minorities. Moreover, there is a general increase in the mean age of women at first childbirth. On the one hand, the OECD (2003) identifies a tendency for fertility rates to be lower in countries with lower employment and educational attainment of women; lower frequency of divorce and of out-of-wedlock births; greater difficulties faced by youths in their transition from school to independent living; and, to a less extent, higher income of elderly people. On the other hand,

for some of these variables, their pattern of association with fertility rates also appears to have reversed sign relative to a few decades ago.

Most accounts of recent fertility declines in OECD countries share a vast number of causal factors driving fertility behavior (OECD, 2003): i) material and psychological benefits provided by children; ii) direct and opportunity costs of children incurred by their parents; iii) the broad economic environment in which reproductive decisions take place, as shaped by the labor market difficulties faced by youths, by changes in women's economic roles and by increased valuation of women's work; iv) individual lifestyle factors, such as values connected to autonomy and self-realization, greater willingness by women to adjust family aspirations to pursue career goals, and the diffusion of alternative forms of relationships; and v) societal and cultural norms, such as those determining the division of home responsibilities within families and those underpinning the functioning of the welfare and tax systems.

A number of authors (Borén and Gentile, 2007; Buzar et al., 2005, 2007; Ogden and Hall, 2000; Steinfuhrer and Haase, 2007) argue that even though the decline of fertility rates is a continuation of earlier processes, the population changes (some already described and some to be described next) experienced by the developed world over the last three decades are a new and distinct phenomenon, condensed in the second demographic transition theory. Whereas the first demographic transition was created by mortality change, the second demographic transition, developed in the 1980s by van de Kaa, involves amongst other trends: new family relations or arrangements; fewer and later marriages; declining fertility in absolute and relative terms below replacement level; population aging, deferment or complete resignation of child-bearing; and new and more varied, usually smaller, households.

A discussion about low birth rates today would be incomplete without mentioning infertility issues, because infertility is a complex condition with several potential causes. The incidence of infertility has risen over the last decades, with an increasing number of couples seeking infertility treatments every year. As mentioned earlier, many women are choosing to have children later in life, after they have established their careers and achieved financial security. Sadly, the biological clock does not match these socioeconomic choices⁵. In addition, more recently, specialists have become more aware of the role of male infertility. Estimates indicate that the male component⁶ in infertility cases represents up to 49 per cent. In this sense, evidence indicating how infertility and miscarriage are often environmentally caused

⁵ Peak fertility, in women, usually occurs between the ages of eighteen and twenty-five, and incidence of infertility increases as the female ages reflecting the normal decline in egg quality experienced with age.

⁶ Male fertility is evidenced by a low sperm count and/or abnormalities in one or more measured parameters (motility, sperm shape, viability).

disorders has increased over the past ten years. In effect, at present, the primary cause of infertility is considered to be due to the wide range of chemical exposures present in the home, job, diet and environment.

These and other facts described before in this subsection strongly entail that recent lifestyle changes experienced mostly in developed countries have deteriorated the likelihood of conception and population growth. The least developed and developing countries will follow.

Another factor which contributes to a country's population is mortality at adult ages. The most rapid decline, ever, occurred in the 20th century. According to the United Nations, by 1950-1955, global life expectancy was 46 years, and it had reached 67 years by 2005-2010. Over the next 45 years, life expectancy at the world level is expected to rise even more to reach 75 years in 2045-2050. The more developed regions had high life expectancy since 1950-1955 (66 years), and are still experiencing gains in longevity. In 2005-2010, their expectation of life stood at 77 years, 11 years higher than in the less developed regions. Even though the gap between the two groups is expected to narrow between 2005 and 2045-2050, the former are still expected to have considerably higher life expectancy at birth than the less developed regions (82 years versus 74 years).

Life expectancy remains low in the least developed countries (55 years), and achieving the increase anticipated (67 years) is reliant on reducing the spread of human immune deficiency virus/acquired immune deficiency syndrome (HIV/AIDS) and fighting other infectious diseases (like tuberculosis and malaria). Other factors such as armed conflict and economic stagnation have also played a role in slower life expectancy increases, chiefly in Africa. Eastern Europe has the lowest life expectancy at birth among the more developed regions, which has been declining since the late 1980s (from 69.3 years in 1960-1965 to 68.6 years in 2005-2010). The Russian Federation and Ukraine have experienced increases in mortality, partly because of the spread of HIV/AIDS.

Almost three decades into the HIV/AIDS epidemic, its impact on the populations of the highly-affected countries is becoming ever more obvious. Notwithstanding the progresses made, in treating people infected with HIV and in controlling the spread of the epidemic, its impact continues to be evident in many countries in terms of morbidity, mortality and slower population growth. In the region with the highest prevalence of the disease, Southern Africa, life expectancy has fallen from 62 years in 1990-1995 to 49 years in 2005-2010 and is not expected to pick up before 2045. As a consequence, the growth rate of the population in the region has plummeted, passing from 2.5 per cent annually in 1990-1995 to 0.6 per cent annually in 2005-2010 and is expected to continue declining in the foreseeable future.

The chief demographic effect of fertility decline, particularly if combined with increases in life expectancy, is aging, also a global phenomenon.

In 1950 there were about 200 million persons aged 60 and over in the world, constituting 8.1 per cent of the global population. By 2050 the world's elderly population is projected to be 1.8 billion people, about 20 per cent of the total population (ILO, 2002). Nevertheless, countries have different rates of demographic aging. Developing countries still have a relatively young population whereas industrialized countries have rather old populations⁷. Despite the general trend of population aging, countries that still have relatively high fertility will have a younger population by 2050. Mostly least developed countries are in this group. By that time, the youngest populations will be found in Afghanistan, Angola, Burundi, the Democratic Republic of the Congo, Guinea-Bissau, Liberia, Niger and Uganda, whose median ages are forecasted to be at or lower than 24 years (UN, 2007). Over the coming decades, population aging is set to affect all OECD countries.

Although demographic projections are uncertain, the ratio of people over 65 to those between 20 and 64 could double between now and the middle of the century. This aging is estimated to be much stronger in some countries, such as Japan, Italy and Spain (Cotis, 2003). Europe is, and is projected to remain, the continent most affected by aging. By 2050, one in every three persons will be 60 years or above. Southern Europe, with a proportion of older persons of 22 per cent in 1998, is the world region with the oldest population. Around 2050, its proportion of older persons will have reached 39 per cent. In 1998, the country with the largest proportion of old people in the world was Italy, followed by Greece, Japan, Spain and Germany. By 2050, the country with the largest share of old people will be Spain, closely followed by Italy. The other areas of the world most affected by aging are, in decreasing order, North America, Oceania, Asia and Latin America and the Caribbean (ILO, 2002).

Besides low fertility rate and high life expectancy, combined into decreasing natural population growth and rising population aging, migration also plays an important role in a country's or in a city's population.

Migration is related to one's individual or collective desire to change for the better. Turok and Mykhnenko (2007) describe migration as a response to differences in employment or in the quality of life between places, even if the process of adjustment is inefficient. Faced with their present living conditions, individuals assess it and compare it with the possibilities in

⁷ The median age of the world population, increased from 23.5 years in 1950 to 26.1 years in 1998. By 2050, the median age is projected to reach 37.8 years. In the more developed regions the median age increased from 28.6 to 36.8 between 1950 and 1998 and it is projected to reach 45.6 in 2050. In the less developed regions the increase was less pronounced: from 21.3 to 23.9 between the same period and by 2050 the median age is projected to reach 36.7 (ILO, 2002).

potential destinations: if the push factors⁸ in the region of origin begin to dominate (unemployment, low income, political persecution, ecological threats), and they are supplanted by pull factors⁹ in the destination regions (demand for labor, high wage levels, secure political existence, no ecological threats) then migration becomes likely (Fassmann, 2006).

Turok and Mykhnenko (2007) advocate that the bigger the disparities between origin and potential destination, the more worthwhile it may be to move, subject to barriers such as distance, legal restrictions, housing constraints and information on the existing opportunities. Furthermore, according to the authors, the predisposition of people to move is dependent on the individual's characteristics, such as age, qualifications, financial resources, and sense of attachment. Hence, push and pull factors act as opposite poles on a magnet, influencing potential migrants' decision to leave or stay.

Migration has clearly increased in recent decades (from 75 million in 1965 to 200 million people living outside their native country in 2005). The movement of people from less developed to more developed regions has dominated migration patterns for almost 50 years. Although most migrants tend to go to countries neighboring their own, when they do travel longer distances, they seek out wealthy nations. The G7 states¹⁰ absorbed more than a third of all international migrants in the early 20th century. By 1990-2000, about half of the migration flow was directed to North America.

The states with the highest percentage of foreigners are rather small but prosperous, and have a high labor demand: the United Arab Emirates, Kuwait, Jordan, Israel and Singapore (Fassmann, 2006). Nevertheless, many African countries are receiving refugee flows from neighboring countries (UN, 2007). The population of the more developed regions is expected to remain largely unchanged at 1.2 billion and would have declined were it not for the projected net migration¹¹ from developing to developed countries, which is expected to average 2.3 million persons a year after 2010.

Estimates, from the United Nations, of net migration between the major development groups show that, since 1960 up to 2000, the more developed regions have been growing net gainers of emigrants from the less developed regions. During 1990-2000, the more developed regions

⁸ A push factor is a forceful factor, and a factor which relates to the country the person is migrating from. It is generally a problem which results in people wanting to migrate.

⁹ A pull factor is something concerning the country a person migrates to. It is generally a good thing that attracts people to a certain place.

¹⁰ The G7 consists of the world's seven largest industrial market economies: the United States, Japan, Germany, France, Britain, Italy and Canada.

¹¹ Net migration is the difference of immigrants and emigrants of an area in a period of time. A positive value represents more people entering the country than leaving it, while a negative value means more people leaving than entering it.

were gaining annually 2.5 million migrants. During 2000-2010, the level of net migration to the more developed regions as a whole changes only slightly, but there is some increase in the net number of migrants received by North America. The input of international migration to population growth in the more developed regions has increased in importance as fertility declines. During 2005-2050, the net number of international migrants to more developed regions is projected to be 103 million, a figure that compensates for the excess of deaths over births (74 million) projected over the same period.

At the country level, during 2000-2010, 33 of the 45 developed countries have been net receivers of international migrants. This group includes traditional countries of immigration such as Australia, Canada, New Zealand and the United States of America, most of the countries in Northern, Southern and Western Europe, as well as the Russian Federation and Japan. In 2005-2010, the net migration more than doubled the contribution of natural increase to population growth in eight countries or areas, namely, Belgium, Canada, Hong Kong (China SAR), Luxembourg, Singapore, Spain, Sweden and Switzerland. Net migration counterbalanced the excess of deaths over births in eight other countries or areas: Austria, Bosnia and Herzegovina, the Channel Islands, Greece, Italy, **Portugal**, Slovakia and Slovenia. During 2005-2050, in terms of annual averages, the major net receivers of international migrants are anticipated to be the USA (1.1 million annually), Canada (200,000), Germany, Italy, the United Kingdom, Spain, and Australia (each with over 100,000).

Asia was by far the major source of migrants during 2000-2010 (1.3 million annually), followed by Latin America and the Caribbean (1.1 million annually) and afterwards Africa (0.4 million annually). During this period, the major origin countries of migrants, in alphabetical order, are China, India, Indonesia, Mexico and the Philippines. Iran and Pakistan also have high negative net migration, partly as a result of the repatriation of Afghani refugees. Until 2050, more than half of all migrants leaving the less developed regions are expected to be from Asia, about 25 per cent to 30 per cent from Latin America and the Caribbean and the remaining from Africa. The countries with the highest levels of net emigration are projected to be: China (-329,000 annually), Mexico (-306,000), India (-241,000), Philippines (-180,000), Pakistan (-167,000) and Indonesia (-164,000) (UN, 2007)¹².

¹² United Nations (2007) advises caution in using these migration figures: «International migration is the component of population change most difficult to define measure and estimate reliably. Thus, the quality and quantity of the data used in the estimation and projection of net migration varies considerably by country. Furthermore, the movement of people across international boundaries, which is very often a response to changing socioeconomic, political and environmental forces, is subject to a great deal of volatility. Refugee movements, for instance, may involve large numbers of people moving across boundaries in a short time. For these reasons, projections of future international migration levels are the

Low fertility and high life expectancy are undoubtedly determinant factors both in population decrease and population aging. These issues and the policies which address them are beyond the scope of urban and regional planning. Nonetheless, the demographic trend is set. In the last pages, we have examined another factor which influences population change or redistribution, causing balance or imbalance between, continents and countries: migration. The previous debate provides a framework for the next subsection about cause-effect processes in population decline.

II.2.3 Cause-effect processes in population decline

Planners as well as demographers, geographers, sociologists, economists and others have been studying the dynamics between the push and pull factors in migration between and within countries, regions or cities. These dynamics emerge unmistakably as being closely related to the causes and patterns of both growth and our subject matter shrinkage. In an increasingly competitive world, shrinking territories are those where push factors surpass pull factors; unable to strive, follow and outdo others.

Migrants tend to go to places where earlier incomers live, which usually mean cities (OECD, 2006). Thus, inflows of migrants strengthen existing settlement patterns. Most incomers are also of childbearing age and many come from cultures with higher birth rates, so they give, temporarily, a further boost to the population through their children (Turok and Mykhnenko, 2007). Turok and Mykhnenko, when addressing the trajectories of European cities in 1960–2005, state the relative growth or decline provided them a simple indication of the scale of net migration flows between and within cities. In other words, it enabled them to assess whether people were moving to or away from cities or parts of the cities. The findings supported the fact that change in city populations was not simply attributable to change births and death rates, mentioned in the previous subsection.

Portnov et al. (2000) point out an earlier study of small towns in Israel (Portnov and Pearlmutter, 1997), which proposed an integrated indicator of sustainable population growth - the ratio between migration balance and natural growth. In view of that, the proportion of growth attributed to a positive migration balance increased with overall population size, becoming the dominant factor when the number of residents in a town was in the range of 20,000-30,000. After reaching that figure, the population growth of towns tended to become less dependent on natural causes than on the settlement's ability to attract newcomers and retain current residents. In a follow-up paper (Portnov and Pearlmutter, 1999), also referred to

least robust part of current population projections and reflect mainly a continuation of recent levels of net migration».

by the authors, additional evidence was provided to the fact that such growth characteristics indicated a turning point in the sustainability of a town's future population growth.

Therefore, there are numerous cause-effect processes contributing to population change. So far, we have concentrated on demographic factors, fertility, mortality aging, and migration. The circumstances behind the push and pull factors that trigger migration are, in turn, very diversified, ranging from extraordinary factors such wars, natural disasters, environmental disasters, and epidemics, to economic, political, and social transformations. The reasons for migration are thus varied, though mostly economic, and so are the patterns of migration.

Extraordinary factors such as conflicts, natural disasters (e.g. floods, droughts, tsunamis), environmental disasters (e.g. soil or water contamination), and especially epidemics, are not focused on literature about shrinkage. These topics are debated mostly in literature about resilience (Campanella, 2006, Folke, 2006; Folke, Carpenter et al., 2002; Godschalk, 2003). Regarding political transformations, it is the post-socialist transformation in Eastern Germany and Eastern Countries that gets more attention (Bontje, 2004; Nuissl and Rink, 2005; Steinfuhrer and Haase; 2007; Kovács, 1999). Cited economic transformations include, deindustrialization, sector decline (e.g. automotive, mining, agriculture), rapid economic breakdowns (e.g. collapse of the dot-com business), general economic cycles and macro-economic trends, globalization, etc.

Regarding reasons for migration **economic factors** (employment, skills, education, accessibility, taxes, housing prices, etc.) and social factors (lifestyle, standards of living, quality of life, urban amenities, etc.) prevail (exception made to hazards and conflicts). Increase in motorisation and (commuter) mobility trigger the previous factors even further. Storper and Manville (2006) assert that explorations towards social choice remain highly abstract and their utility in policy seems small. The authors find that if urban theory could «(...) make progress in thinking about how preferences evolve, how choices interact, how the environment involves problems in revealing and satisfying them due to bundling and different latency periods and so on, then it could potentially furnish better information to the public and policy-makers about what they are potentially choosing (...) when they make short-term choices».

Amongst the spatial patterns of migration, **suburbanization** is the most debated topic. Counterurbanization or desurbanization, dispersion, gentrification, and global gentrification are also considered socio-spatial manifestations of migration. Bridge (2007) concludes that although there is no global gentrifier class based on occupation, knowledge, aesthetics, or use of space, there are global cities where a range of middle-class strategies over social reproduction can be sustained. Bridge remarks, however, that gentrification has to be

considered separately as an urban process from a process of class constitution, and neither points to its coherence as a global phenomenon. Either concerning reasons for migration and spatial patterns of migration, it is alluded **planning policy's** responsibility, directly or indirectly, deliberately or not, in population distribution and redistribution processes, that is to say in inward and outward migration.

In the next pages we will explore further three cause–effect processes' topics present in the literature: economic factors, suburbanization, planning policy (and other factors) in their relation with the phenomenon of shrinkage.

Economic factors

In the international debate about shrinking cities, the relation between population decline and economic decline is frequently taken for granted. Lang and Tenz (2003) referred to in Franz (2004) state that a shrinking city «is characterized by two causal processes: a loss of population and faltering economic momentum (...)». Franz highlights that the literature on macro-economic growth recognizes high positive correlation between gross domestic product (GDP) growth and population growth. Although population growth rates are often taken as a substitute indicator for economic growth, Franz asserts that the interplay may not be the same in a situation of demographic decline.

The author examined individual factors that could be responsible for demographic and economic decline processes not running parallel. It is demonstrated that commonly used growth indicators were themselves influenced by demographic change. Based on the German experience, Franz put forward conceivable growth and decline constellations (Table 1). Over the periods 1994-96 and 1998-2000, no concurrent demographic and economic decline was yet apparent in major East German cities. However, a pattern of growth without employment effects (jobless growth) was in evidence in many cities. Moreover, findings suggested that after a phase of fairly uniform development (1996-1998), East German cities embarked on increasingly diverging development paths (1998-2000).

Table 1. Economic and demographic growth and decline constellations in a region

Economic and demographic growth or decline constellations in a region	Population and employment decreasing or stagnating	Population and employment growing
GDP growth and productivity growth above average	I Jobless growth or statistically determined growth	II "Normal" growth
GDP growth and productivity growth below average or declining	III Shrinking economic performance and shrinking population	IV Expansion of labor intensive sectors with low productivity

Source: Franz (2004, p. 4)

Franz presented various hypotheses about a causal link between demographic and economic decline. Different patterns of demographic decline appeared to have different effects on growth factors (Table 2). There could be the case when population losses in a city had a statistical impact but no economic effect. This held for migration from cities to suburbs, which involved a change in residential location but usually neither a change in job nor in consumer behavior, but also for the suburbanization of industry and services. A fall in population caused primarily by suburbanization appeared to be less damaging. Consequently, adequate investigation should incorporate the complete urban region.

Table 2. Possible effects of demographic development on labor supply and consumer demand in a region

Demographic aggregate	Economically relevant effects	
	on the labor supply	on consumer demand
Migration loss to the surrounding region	No effects as long as jobs are retained in the city	No effects so long as consumer habits are retained
Migration loss in interregional migration	Declining workforce where majority of out-migrants are of employable age Declining quality of human capital	Consumer demand declining owing to fewer households
Birth deficit or death surplus	No short-term effect; falling labor supply in medium-term	Consumer demand reduced through a) smaller households b) fewer households

Source: Franz (2004, p. 5)

Lundberg (2006) investigated factors that determined the average income growth and net migration rates in Swedish municipalities during 1981-1999. The focal issue was to test the hypothesis that conditional on a set of other possible determinants of regional growth, the growth rate in one municipality was affected by the rates in its neighboring municipalities. The hypothesis of conditional income convergence across municipalities was also tested. The author found a positive correlation between net migration rates in neighboring municipalities, suggesting that net migration tended to *spillover*. When it came to average income growth, there was no clear evidence in favor of the hypothesis of conditional convergence. Instead, the results indicated conditional divergence between municipalities located in the Stockholm region during the period and also for municipalities outside the region during the 1990s.

Sprawled suburbanization

Sprawled suburbanization entails a specific type of out-migration, of population and businesses, within cities, which can be triggered by a variety of reasons alone or combined: planning policies, mainly housing policies, living standards expectations, mobility shifts, racism and segregation, and other motives. Although, sprawled suburbanization is not the main topic of my research, it is important to establish a background from which to depart when debating its implied relation to urban shrinkage. Many authors tried to synthesize what is sprawl and what causes it (the consequences of sprawl were already discussed earlier), for that reason those will be my starting point.

Couch et al. (2005) looked at the way a number of authors moved toward a definition. First, Couch et al. considered Peiser's (2001) suggestion for a definition of sprawl as «the gluttonous use of land, uninterrupted monotonous development, leapfrog discontinuous development and inefficient use of land». Then the authors presented four types of definition of urban sprawl identified by Chin (2002) based upon: (1) urban form – generally measured against an ideal type of city: compact; (2) land use – associated with the spatial segregation of land uses; (3) impacts – absorbs almost every development with negative impacts; and (4) density - identified with the notion of low density developments.

Galster et al. (2001), also referred to by Couch et al., found definitions based upon example, in which Los Angeles had the lead, and it was generally portrayed as ugly development. Considering different views, they suggested their own definition: «Sprawl (n.) is a pattern of land use in an urbanized area that exhibits low levels of some combination of eight distinct dimensions(...)» mentioned in section II.1. Unlike its predecessors, the authors tried not to be as judgmental. Nevertheless, Couch et al. thought that all definitions had one big problem: they concentrated on urban sprawl as a pattern of urbanization, rather than as the process of urban change by which spreading occurs. Ewing et al. (2003) assert that there is still no anchoring definition of sprawl, which has contributed to its unfocused, dogmatic quality.

Hesse (2006) generally describes suburbanization as the sprawl of urban settlements, beyond the bonds of a core city and into its hinterland. The author asserts that one can only describe this process as suburbanization if there is an increase in the total population or occupational activity of the urban region (comprising both core city and outlying areas). Furthermore, Hesse stresses that the relocation of population and jobs to the suburbs is mostly accompanied by the inverse densification of an urban settlement, a process that becomes more extreme when the total population of an urban region is no longer growing, but stagnating or even shrinking. In this thesis, we will refer to sprawled suburbanization as the movement of people

and businesses towards remoter areas to the detriment of others in simultaneous with an increase in total urbanized area.

The demand for lots of size unavailable or too expensive in the city centre was the initial drive for sprawled suburbanization, both for residential and business use. The evolution of the motorized transport had a decisive role. Extended public transport facilities and the introduction of buses and private cars, which reach areas not connected with the network of trains and tram ways, expanded the range of residential and business location (Van den Berg et al., 1982). Besides, highway and other infrastructure construction, mortgage interest deduction, and cheap gasoline also have encouraged suburban growth (Gyourko and Voith, 1997; Nivola, 1999 referred to by Kahn, 2000). Planners themselves met and fostered this demand and these changes by releasing greenfield lots in distant areas and by creating accessibilities (Couch et al., 2005; Hesse, 2006). The distortions generated by the property tax may also include inefficient spatial expansion of cities (Brueckner and Kim, 2003).

Homeowners have chosen suburban locations mostly on account of qualities that are either unavailable or unaffordable in the core city: generous living quarters, gardens, recreational spaces, quietness and proximity to the countryside, less traffic intrusion and less crime, a child friendly environment and generally low density (Couch and Karecha, 2006). As household income grows, more households move to the suburbs (Kahn, 2000). Furthermore, living in a detached suburban house has become a major aspiration, a step up in social status. To the people involved, it is important enough to prevail over the sacrifice of the money and time required to bridge the distance from and the provision of the city core; this provided that the infrastructure between their new residence and the city is adequate (Van den Berg et al., 1982). Couch and Karecha (2006) assert that the perception of owner occupied housing as both a consumption and an investment good adds yet another dimension to the equation.

Businesses relocate to suburbia because space is more generously available, cheaper and with fewer restrictions to how and what to build than in the inner city, and besides accessibilities are more convenient – a winning proposition. This is mainly true for industries requiring large spaces, but also for whole sale and retail distribution, freight haulers, and logistics companies. Large retail and leisure facilities, which are centre of today's shopping and recreation activities, also prefer locations fitting this description (Couch et al., 2005; Hesse, 2006). The relocation of factories and some other businesses to the periphery is usually welcomed, because there they are less of a problem.

Byun and Esparza (2005) proposed a process-based conceptual model that explains sprawl and suburbanization in the USA since the 1970s. Their explanation focuses on the local

regulatory environment and the ways in which residents and homebuilders respond to it. The process begins with the imposition of growth controls and/or growth management devices in politically fragmented metropolitan regions as jurisdictions seek to dampen the negative impacts of growth and stabilize local budgets. Such disintegrated efforts channel spillovers to unregulated areas, eventually reaching the distant suburbs at or beyond the urban fringe where regulations are less restrictive, thus lowering costs for homebuilders and homebuyers. Hence, although arguable, in this context the government seems to have powerful instruments with which to influence the spatial pattern of urbanization (Van den Berg et al., 2982).

As mentioned earlier, suburbanization occurred primarily in conditions of urban growth. However, partial or selective suburbanization processes can occur in conditions of shrinkage; and there is also an inverse indication that many older suburbs have already found themselves subject to shrinking processes (Müller and Siedentop, 2004; Couch et al., 2005; Nuissl and Rink, 2005; Hesse, 2006; Siedentop and Fina, 2008).

Couch et al. (2005) address the problem of whether urban sprawl may have distinct features in a context of decline by means of two case studies – Liverpool in England and Leipzig in Germany. The authors identify two specific characteristics of urban sprawl in stagnating or declining urban regions: (1) there is no link between the societal change and economic growth and the physical extension of the urban area; (2) it is part of a *zero-sum-game* in which new areas are developed at the expense of existing urban quarters. Couch et al. posed two relevant questions to this section subject matter: (1) what characterizes the situation in which urban sprawl is combined with urban decline?; (2) and what kind of urban form results when urban sprawl occurs in a declining city?

First, urban sprawl in shrinking cities cannot be traced back to dynamics entirely different from urban sprawl in growing cities (of the western world), according to the authors. Nonetheless, the underlying dynamics of residential sprawl may be exacerbated in situations of shrinkage: the decline of (parts of) the inner city increases the wish of inner city residents to live somewhere else (e.g. suburbia). However, in shrinking cities prices and rents are moderate throughout the urban region, and so the refurbished inner urban residential areas provide both an attractive and reasonable living environment. Thus, on the whole, there is no increase in push factors (unless shrinkage is regional). Couch et al. suppose this is true for commercial, retail and leisure facilities, but that there is also less opposition for the suburban allocation of these facilities in declining regions. Summing up, they believe the main problem of these cities is not sprawl but decline.

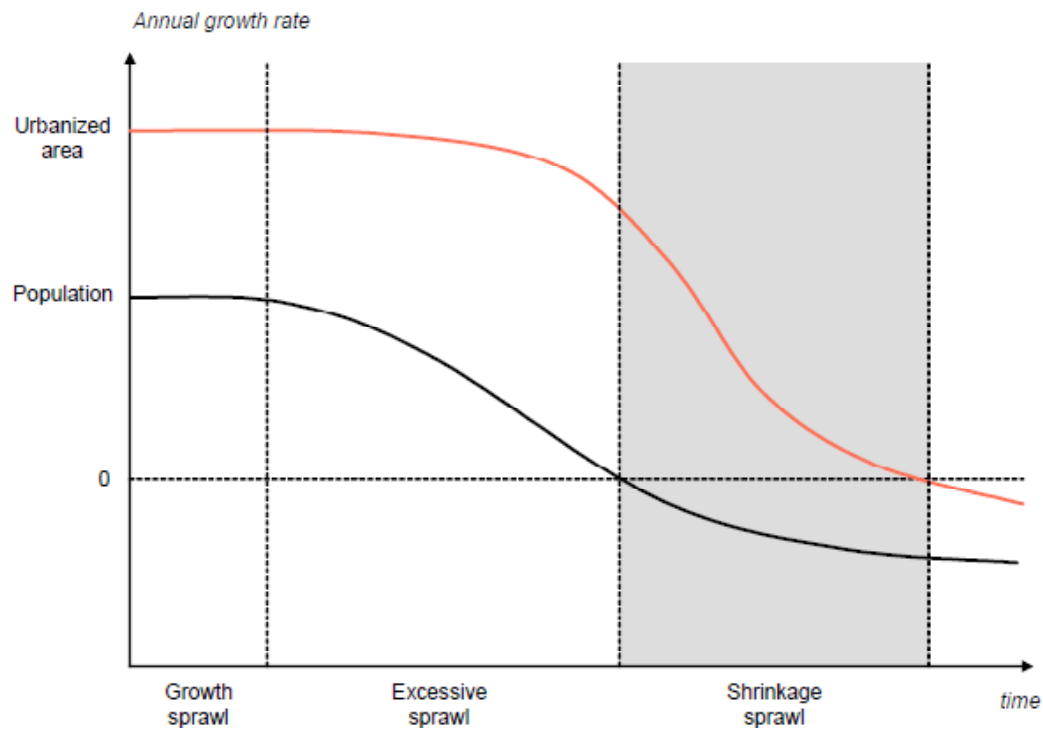
Second, regarding what kind of urban form results when urban sprawl occurs in a declining city, Couch et al. find similarities between the suburban zone of declining cities and the suburban zones in thriving/growing cities. On the other hand, the authors state that, in the inner city, the urban fabric is perforated with increasing vacancy, run-down spaces and a generally deteriorated urban environment. As suburban and non-urban elements ‘return’ into the cities – single-family suburban houses on private plots, ‘weakly defined’ open spaces – a loss of the usual notion of urbanity sets in: «(...) the unaesthetic assemblage of architectural forms, spaces, functions, and colors which has been emerging on and beyond the outskirts of western cities for about half a century, but may, as brownfields prove permanent, become a characteristic feature also of the inner city».

Siedentop and Fina (2008) developed research based on the argument that urban sprawl, its main physical features, and its negative outcomes on the efficiency of urban systems are not merely a by-product of urban growth.

These are major driving forces for a new type of urban sprawl, for which Siedentop and Fina use the term “shrinkage sprawl”. Although one could assume that urban shrinkage should discourage urban sprawl because fewer residents require fewer housing units, less urbanized land and less infrastructure these authors find there are, in Germany, major factors working against this logic: (1) the ongoing demographic trend towards smaller households, counterbalancing the negative effect of population decline on housing demand; (2) the fiscal competition between communities to attract new inhabitants and companies, fuelled by tax regulations and public subsidies for the provision of newly urbanized land for housing as well as for industrial and commercial land uses, (3) “planning routines” of local land use planners that favor greenfield development over brownfield projects, where brownfield development is perceived as more complicated and uncertain, and (4) a strong preference for low density housing especially in suburban and rural regions with low land prices.

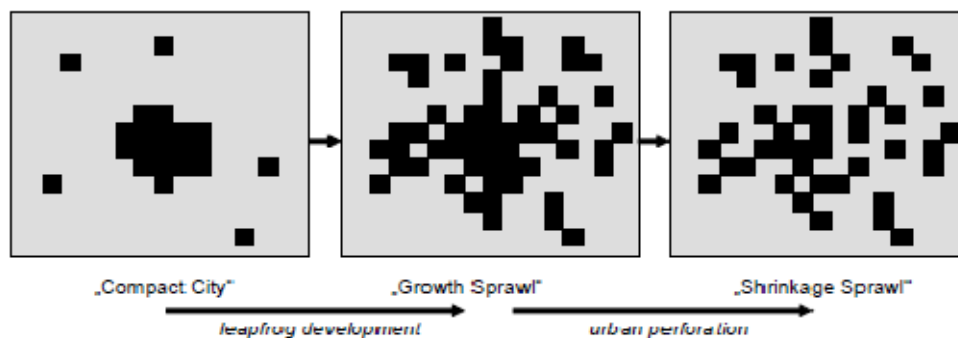
Based on recent German data on population and land use, Siedentop and Fina observe a genesis of urban land use with a characteristic sequence of three stages (see Figure 1). In Stage 1, named “growth sprawl”, annual growth rates of population and urbanized areas are positive with urban growth outpacing population growth. “Excessive sprawl”, which corresponds to Stage 2, is characterized by a growing discrepancy of urban and population growth: while the annual population growth falls, the growth of urbanized areas remains high. Stage 3, termed “shrinkage sprawl”, shows a negative population development accompanied by a drop in urban growth rates. Siedentop and Fina expect a fourth stage with a negative growth of urbanized areas in regions that are faced with a severe decline in population. One product of this temporal sprawl pattern is a dynamic decrease in urban density with the

largest density decline in Stage 2. A “perforation” process within the urbanized area becomes visible, in what change of urban form is concerned (Figure 2).



Source: Siedentop and Fina (2008)

Figure 2. Sprawl genesis – from “growth sprawl” to “shrinkage sprawl”



Source: Siedentop and Fina (2008)

Figure 3. Pattern dimension of “shrinkage sprawl”

Planning policy and other factors

Bontje (2001) critically evaluated the degree to which spatial planning *made a difference* in the population redistribution process, in the recent past. First, the author focused on the Netherlands, a country characterized by a polynucleated settlement pattern. Second, Bontje presented an international comparison with three other areas in north-west Europe (West Sweden, Switzerland and Northern England), characterized by the same settlement system. The evidence introduced by Bontje, with similarities in population redistribution in the four case-study areas, suggested that the influence of spatial planning was very modest.

Although the spatial policies encouraging deconcentration and the formation of a polynucleated settlement system, dominant in the 1970s, were generally quite successful; the subsequent shift to compact-city policies, in the 1980s, had not led to comparable attainments so far. The recovery of urban population growth seemed well in line with the compact city policy, but was caused by other factors. In the Dutch, Swedish and Swiss cases, the major factors were the economic downturn in the 1980s (discouraging suburbanization), the increase of foreign migration, focused on large cities, and the growing proportion of small non-family households with a predominantly urban housing preference. Except for foreign migration, the above-mentioned factors for the recovery of large cities also apply to northern England. Still, the main trend in population distribution since the early 1970s has been deconcentration, with the strongest population growth in the suburban and rural areas.

Cheshire and Magrini (2006) investigated differences in the rate of population growth across the large city-regions of the European Union (EU)-12 between 1980 and 2000. There was evidence suggesting that equilibrating migration flows between cities in different countries are highly constrained in the EU, when comparing to the USA model, which assumes perfect factor mobility. Quality-of-life motives did seem to be an important feature of differential population growth rates if measured relative to national rather than EU-12 values. Once other factors are allowed for, a systematic and highly significant factor determining rates of urban population growth is climatic variation. However, population movement responds to climatic differences, but only within countries.

The authors believe that evidence re-enforces the conclusion that quality-of-life-motivated mobility is largely restricted within countries and that it is more realistic to think of the building blocks of Europe as city-regions within their national urban systems rather than as within some unified EU urban system. On the other hand, Cheshire and Magrini find there is evidence that the systematic spatial gains from European integration are reflected in a city's population growth, as are systematic differences in their economic inheritance and the degree to which their economies interact with those of neighboring cities.

II.3 Unfolding shrinking cities

II.3.1 Consequences of population decline

It is important to identify the consequences of population decline present in the literature, the alleged characteristics of shrinkage, that happen when positive planning action is nonexistent. Notwithstanding, it is important to be aware of the consequences of population decrease because these may well be future topics and action fields for planning research and practice. To begin with, a plummeting population density is one of the most obvious consequences of population decline, and in this case an ineluctable characteristic of shrinkage, with several effects. These consequences will be presented bellow.

For Ferrari and Roberts (2004), the dynamics of the built-up environment are a crucial aspect of the shrinkage concept, and both the number of vacant dwellings and the amount of derelict land are vital when considering this issue. Ahrens (2005) anticipates there will be ever-increasing empty housing in shrinkage situations¹³. Nevin et al. (2004) argue that there is a shrinking housing market which exposes problems of obsolescence of property types; a declining target market; vacancy of properties and land; and a general hollowing-out of the inner-city, eroding the viability and sustainability of neighborhoods and the services that support them¹⁴, as we will discuss later on. Still, the problem is not exclusive to the cities' centre, and perforation can and does take place everywhere in a city-region, or in the territory. From Herz's (2006) viewpoint, demographic trends indicate a long-term decline in population and employment all over Europe, particularly in rural areas and smaller towns, but also in some quarters in larger cities; and eventually this decline will lead to perforated areas. Some of these spatial consequences of population decrease can turn out to be opportunities for planners. General falling property prices and a slack housing market can lead to less pressure on investments and space consumption and unexpectedly low property prices in inner city locations (Ahrens, 2005) or other sought-after locations.

Mäding (2004) explored the thesis of a demographically determined, generalized local government financial crisis taking in account not only revenues, but expenditures as well. According to Mäding, it is not enough to consider the impacts of demographic change – decline – on the revenues side. The author's arguments, on the revenues side, are the following: growth in productivity can be expected, *per capita* public and municipal revenues

¹³ In the new German states for example, studied by Ahrens, about one million flats are already vacant.

¹⁴ Nevin et al. (2004) refer to the M62 corridor running between Merseyside and central Manchester and beyond.

are likely to increase; and demographically determined income disparities between local authorities can be leveled by financial equalization.

On the other hand, Mäding finds that the danger on the expenditure side has four components: (1) persistence of expenditures in the event of a dwindling population; (2) rising *per capita* expenditures due to the effects of demographic structural change; (3) supplementary spending due to the effects of internal migration; (4) and, finally, additional spending in pursuit of an *excessive* attractiveness policy in *cut-throat* competition for residents. The latter presents a danger indirectly connected with population decline: for a given total population, each individual can only win at the cost of others¹⁵.

Ahrens (2005) also believes that a smaller tax base and declining tax revenues will not facilitate the financing of adjustments due to population losses, such as the adjustment of oversized facilities; and the structures' renewal. First, empty housing and vacant lots lead to oversized social, transportation and technical infrastructure; and second, with declining densities, unit and transaction costs of public services will progressively increase. Thus, with shrinkage, planners, operators of utility technical infrastructures are confronted with this completely new situation: less money for over dimensioned and underutilized infrastructure.

Koziol (2004) stresses that, as population declines and consumption drops, many technical infrastructure systems will be used below capacity and malfunctions will begin to increase. Hence, a situation of shrinkage is prone to hamper efficient operation and generate follow-up costs. First, the important basic investment in utility lines for drinking water supply, sewage disposal, electricity, district heating, and other services, are reflected in long-term effective fixed costs, the key component of charges and prices¹⁶, for provision of those same services. Second, depending on the urban redevelopment/downsizing strategy adopted, high direct costs are incurred in scaling down, diverting, and relocating service lines, for adapting pumping and distribution stations, etc., while indirect costs arise from apportioning existing fixed costs among a smaller number of consumers. Finally, passing on the full direct and indirect costs of infrastructure adaptation to the consumer is not even feasible for legal and political reasons (Koziol, 2004).

Herz (2006) also deals with the impact of shrinking cities on buried infrastructure. According to the author, the likelihood for densification around centers and along axes of infrastructure is small, and in addition new building activities will continue on a smaller scale.

¹⁵ Mäding refers to German municipalities already engaged in fierce competition for residents for financial reasons. He believes that as the population as a whole decreases, the tone of that competition will certainly increase.

¹⁶ Between fifty and eighty per cent.

Nevertheless, although parts of buried infrastructures will become over-sized, a few of them even obsolete, most of them will still be necessary in the context of the distribution network. Herz believes that this process of shrinking demand for infrastructural services is accentuated by the decline of demand *per capita*, due to the need for more economical and efficient use of resources in harmony with the goals of sustainability. Therefore, the specific costs of the provision of infrastructural services increase, driven also by the need for infrastructure rehabilitation which, on the other hand, provides an opportunity for downsizing the system and adapting it in a sustainable way to the emerging pattern of demand.

Several other authors (Moss, 2003, 2008; Schiller and Siedentop, 2006; Schiller, 2007) recognize the technical and economic problems prompted by the combination of expanding networks and declining consumption and the challenge of preserving cost efficient infrastructure supply in shrinking cities. For instance Moss (2003) identifies disused industrial sites – brownfields – as ‘cold-spots’ of infrastructure systems. Ahrens (2005) argues that infrastructure and social services financial burdens will increase due to fewer taxpayers, simultaneously reducing the available budget of private households for mobility.

Ahrens explains the difficulty in estimating precisely the consequences of demographic changes due to different influences on transportation demand. Some of the different effects can accelerate, but some can also compensate for each other. Nevertheless, significant traffic reductions in areas with large population losses can lead to: (1) lower volumes especially during peak hours, reduced lanes and width of streets; (2) less traffic in side streets to avoid congested major streets; (3) extension of zones with traffic-quietening; (4) better supply for parking; (5) reduced maintenance cost for transportation seats, service areas and other similar infrastructures; (6) renewed car driving among former public transportation users (because of available parking places and less congestion). Besides, the author is sure there will be a noticeably lower demand for public transportation, but argues it is still not possible to make exact mid-term and long-term projections.

On the basis of empirical studies, Strohmeier and Bader (2004) show that disadvantaged population groups – the poor, the old, and foreigners¹⁷ – will in future predominate in the urban landscape, and will concentrate in certain urban areas in which social problems cumulate. The causes lay both in selective migration, especially out-migration by the German middle classes to the suburbs, and in the aging of population. The authors find polarizing tendencies within cities; what the urban sociologists call segregation, meaning the degree of

¹⁷ As a result of the differential age structure of the German and non-German populations, most of the population in North Rhine-Westphalia cities will in the near future come from an immigrant background even if no further immigration takes place (Strohmeier and Bader, 2004).

unequal distribution of the resident population over the territory in terms of social status characteristics (social status of residential areas), of family form life styles (family status).

This fact is considered quite upsetting, namely because *Districts with Special Development Needs* will proliferate sparking off urgent need for action to avoid further gaps in urban society. This is a challenge for the shrinking cities. In turn, the predominance of disadvantaged population groups entails declining purchasing power and cumulating social problems. Hollbach-Grömig and Trapp (2006) state that population decrease affects labor markets because skilled labor, an important location factor, becomes scarce in these territories. The former and the latter usually can bring about an increasing crime incidence, although some authors argue that growing cities are more likely to attract crime perpetrators and have higher crime rates than shrinking cities.

Adding to the aforesaid characteristics, decreasing population and declining population heterogeneity can lead to the death of social life, of public sphere, which constitutes the main source of creativity and innovation, creating a sweeping knowledge and cultural void. The generalized decay described above has an evident effect in the image of a territory. If, as Beauregard (2005) asserts, civic elites everywhere have become obsessed with the image that their cities project to the world, then the way the city is perceived has to be considered. Beauregard finds that images of renewal and decline are unequal in their narrative valence. While images of renewal/growth expand narrative options, decline shrinks possibilities. Renewal and growth relate to affluence and accomplishment and practically unlimited opportunities for achieving and finding happiness.

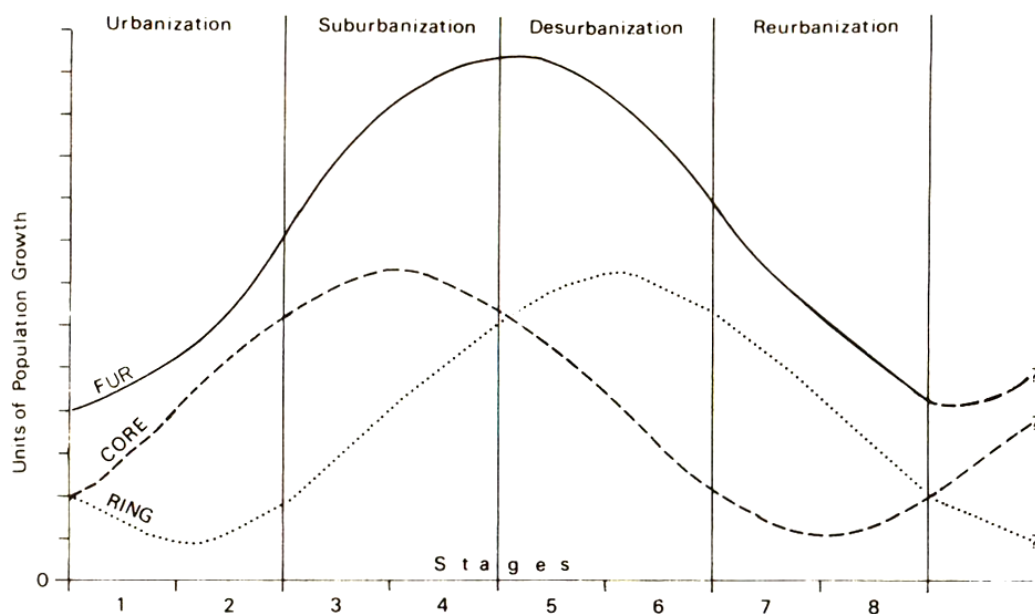
Decline is not able, and even shrinkage has not been able, to appeal to positive narratives. Moreover, harsh daily routines and pauperization do not leave space and time for anything else but exhaustion, negativism, and collapse. Borries and Böttger (2004) believe the real problems in shrinking cities are a lack of motivation, hopelessness and sadness, that is to say the mental maps or psychological conditions. However, despite it all, Delken (2007) shows that, for the ones who choose to stay, living in a shrinking city does not lead to less life satisfaction. Beauregard concludes reflecting briefly on the limits of images for helping us to understand the city: «While we can see the consequences of disinvestment and abandonment and the results of large, capital investments (...); the dynamics behind these images, the dynamics that produce them, are hidden from view».

All of these aspects, if not dealt with, can lead to even greater population loss, increasingly sharpening the spiral of decline, not shrinkage. In our opinion, although they should not be taken carelessly, these characteristics of shrinkage are not fatal or failure determinant. Planning should work towards their optimization.

II.3.2 Definitions of shrinking cities

The shrinking cities concept is relatively new in the urban and regional planning debate.

Nevertheless, Pacione (2004) identifies four stages of urban development recognized in the literature, namely by Van den Berg et al. (1982), and cunningly describes this stages in the following manner: (1) urbanization when certain settlements grow at the cost of their surrounding countryside; (2) suburbanization or exurbanization when the urban ring grows at the cost of the urban core; (3) **desurbanization or counterurbanization** when the population loss of the urban core exceeds the population gain of the ring resulting in the agglomeration losing population overall; (4) **reurbanization** when either the rate of population loss of the core tapers off or the core starts regaining population with the ring still losing population (Figure 4 shows the different stages).



Source: Van den Berg et al. (1982)

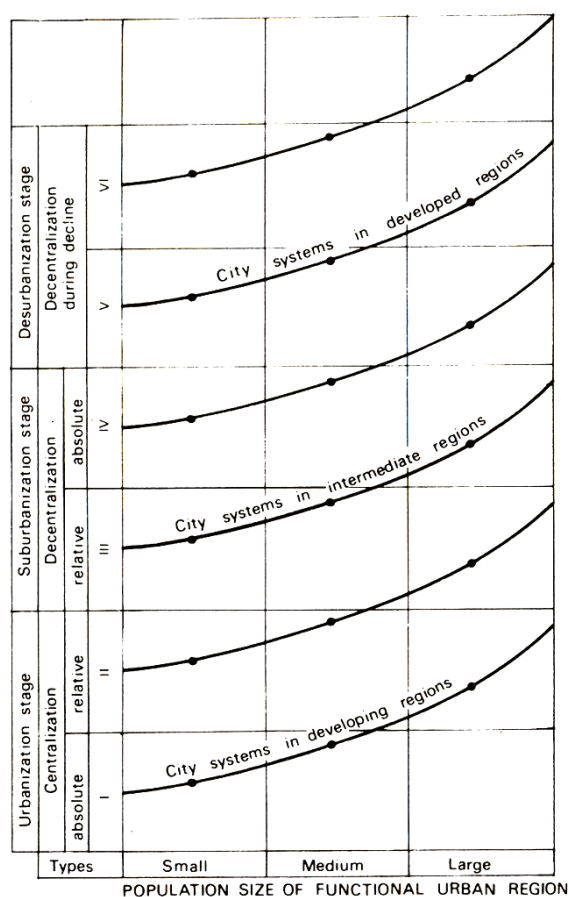
Figure 4. Population size of the core, ring, and functional urban region¹⁸ (FUR) in different stages of urban development

Van den Berg et al. (1982) acknowledge that the definition of successive urban development stages is broad-spectrum, but argue it is helpful to schematize the process of urban change. In this scheme, shrinkage would then correspond either to desurbanization or reurbanization. As mentioned before, some authors also identify suburbanization as cause of shrinkage. Moreover, three broad stages are conceived by Van den Berg et al. as far as economic structure is concerned: first, the transition from a largely agrarian to an industrial society, second, the transition from an industrial economy to a tertiary economy, and third, **the**

¹⁸ The concept of Functional Urban Regions is interpreted by Van den Berg et al (1982) as referring to nodal regions, identifying urban centers, and delimiting zones dependent on those centers.

growth of the tertiary sector to maturity. Regarding the economic structure, shrinkage would be the best fit for this maturity.

However, Pacione (2004) finds that regardless of evidence of a reurbanization trend in some metropolitan regions, the process of decentralization remains a major characteristic of contemporary Western societies. According to Van den Berg et al. (1982), the decentralization of the population and latterly of jobs is a process that characterizes urban systems in the desurbanization stage, irrespective of their size, region, or location in relation to other cities; what varies is the rate at which this process operates (see Figure 5). Figure 5 shows that for instance the cities in the prosperous regions of a country are apt to decentralize more swiftly than those in peripheral or less prosperous regions. Furthermore, the size of the city system is key in explaining rates of decentralization, mostly because size is related to the density of the urban core, which is linked in turn to the stage that a city has reached in its life cycle, Van den Berg et al. explain.



Source: Van den Berg et al. (1982)

Figure 5. Population centralization and decentralization related to city size and the level of regional economic development

It is reasonable to say that the expression ‘shrinking cities’ first appeared in the research carried out in the United States of America by Rybczynski and Linneman (1996). Rybczynski and Linneman describe these shrinking cities, the cities that have declined, as vertical cities, while the growing ones are, in their viewpoint, best thought of as horizontal cities. Rybczynski and Linneman state these two prototypes differ radically with respect to infrastructure, amenities, and housing stock.

The **vertical city**, according to the authors, evolved during the industrial era and has highway, mass transportation, and rail systems to link the suburbs to city centre. Its population density is high, typically more than 10,000 persons per square mile. Its amenities include large public parks. The vertical city is known for downtown offices, manufacturing, and shopping and cultural activities. In general, around half of its housing stock was built prior to 1939. It is mostly comprised of row houses, walk-up flats, and apartment buildings that were located to allow walking to work and play.

In contrast, the **horizontal city** evolved after World War II and is designed for rapid car and truck movement, not merely from suburb to city but also from suburb to suburb. There is little mass transit or rail infrastructure. Instead, massive transportation expenditures have focused almost exclusively on facilitating auto travel. The density is low (typically less than 3,000 persons per square mile), and urban amenities are more private than public. Equally important is the fact that the housing stock is much newer, typically offering single-family houses with large backyards (and large garages to “house” cars). The horizontal prototype is not simply a new or updated version of the vertical prototype-it is a different kind of city.

The authors admittedly generalize that the horizontal city seems to have provided a kind of life that the overwhelming majority of the Americans consciously chose, in spite of their romantic image of the old vertical city. They state that the harsh reality is that, for the majority of working people, the vertical city offered cramped and noisy housing, little privacy, and relatively basic public amenities. In this sense, much of the current interest in the historic preservation of old buildings and efforts to recreate the “old time” urban fabric only artificially romanticize cities of the past.

Rybczynski and Linneman’s idea of shrinking city is closely related to suburbanization and sprawl, and is consequently outdated because there is divergent evidence regarding shrinkage. More to the point, it is focused on the specificities of the Northern American cities’ prototypes before and after World War II. Today, shrinkage is not merely a matter of suburbanization, it goes far beyond it. As one would anticipate, there are differences of opinion on what does the concept of shrinking cities means at a global level.

There is some resemblance between the concept of shrinking cities and the concept of forgotten cities proposed by Hoyt and Leroux (2007). However, although the latter fit in former, the opposite is not quite valid. Forgotten cities are described as cities whose citizens once supplied the world with clothing, machinery, and material luxuries. These (Northern American) cities underwent wrenching economic restructuring and other challenges that led them to become instead national leaders in unemployment, devaluation of housing stock, and crime. The authors identify perennial challenges facing forgotten cities tend to be implicitly understood but rarely articulated, such as: a lack of civic engagement and institutions, inadequate governing capacity, and a chronically negative collective mindset.

Hoyt and Leroux define forgotten cities by the following three criteria: (1) old-cities with an industrial history, meaning they had a population of more than 5,000 inhabitants by 1880; (2) small-cities with between 15,000 and 150,000 residents according to the 2000 USA Census; and (3) poor-cities with a median household income of less than \$35,000 according to the 2000 USA Census¹⁹. In their report, Hoyt and Leroux state that, unlike global cities and “comeback” cities, forgotten cities did not reap the benefits of a robust national economy in the late 1990s. Despite the fact that their needs are great, they have only recently received attention from scholars and policymakers, similarly to shrinking cities.

The authors found similarities in the shared experiences of these cities, which can be described by five elements, or “slides”, of decline. They recognize that these categories, while not linear stages, frequently begin with “shock”, often characterized by plant closings, and culminate in “shame”, what happens when the cities’ residents themselves have internalized the perception of failure. The elements of decline, following dominance, also include slippage, self-destruction and stigmatization. According to the authors, slippage is characterized by a decline in public service delivery, with an increase in mismanagement, nepotism, and even receivership in extreme cases.

Hoyt and Leroux believe that arson, a symbolic representation of disinvestment, with a particularly devastating impact on small cities best depicts self-destruction. In turn, arson goes hand in hand with abandonment, and it is not uncommon to have areas where over 30 percent of the land area is vacant or blighted. Stigmatization, an especially vulnerable stage for cities, is what happens when a city’s negative image can itself have adverse effects on an individual. This negative perception is extremely difficult to overcome.

This concept’s size criterion especially distances it from a *good* shrinking city definition.

¹⁹ There are 150 cities in the United States of America that match these criteria, representing a total of 7.4 million people.

The causes and characteristics of shrinking cities are as manifold as cities in general (Rieniets, 2005). Even though (urban) shrinkage does not follow a homogenous pattern, we will try to abridge the most important characteristics found in the literature to describe them. In a broad and common sense, a shrinking city is a city that is losing population. Shrinkage is used, first and foremost, as a synonym of declining population, or at least as a synonym of a group of varied trends which underlie the change that originates population decrease. When defining shrinking cities, shrinkage is, as a rule, considered a synonym of decline or decay, rather than the antonym (development pattern) of growth – our view – as established previously in the scope of this research. As such the definitions of shrinking cities, usually, have a tragic and derogatory character.

All seem to acknowledge the demographic characteristic (Aber, 2006; Ahrens, 2005; Andersen, 2005; Audirac, 2007; Banzhaf et al., 2006; Beauregard, 2005, 2009; Bontje, 2004; Borries and Böttger, 2004; Couch and Karecha et al., 2005; Delken, 2008; Franz, 2004; Hancock, 2007; Hayashi, 2007; Hayashi and Sugiyama, 2003; Hayashi and Tomita, 2003; Herz, 2006; Jessen, 2006; Kabisch et al., 2006; Koziol, 2004; Liebmann and Robischon, 2006; Mace et al., 2004, Mace et al., 2007; Mäding, 2004; Martinez-Fernandez and Wu, 2006, 2007; Moraes, 2006; Müller and Siedentop, 2004; Mulligan, 2006, 2007; Pallagst, 2005; Rybczynski and Linneman, 1996, 1999; Schiller and Siedentop, 2006; Schilling, 2008; Sucato, 2006; Vargas-Hernández, 2006, 2007; Wiechmann, 2006, 2008a, 2008b, etc.).

In the literature, the quantitative aspect obviously differs widely from country to country, according to their specific context, rate of urbanization and established urban hierarchies. Shrinking cities as referred to in the atlas of the Shrinking Cities (SC) Project are cities that have temporarily or permanently lost a significant number of their inhabitants. In the SC Project (2006), population losses are considered to be significant if they amount to a total of at least 10 per cent or more than 1 per cent annually; and apply to the administrative municipal districts, even if these lie within growing agglomerations²⁰. In their research on the trajectories of European cities, Turok and Mykhnenko (2007) considered declining cities were those with a rate of population change below their national average (i.e. relative decline); as opposed to growing cities which were those with a rate of population change above their national average (i.e. relative growth).

²⁰ This delimitation allows the inclusion of the effects of suburbanization which in many cases has led to the shrinkage of cities with concurrent growth at the periphery. In this connection, the consequences of shrinkage for the inner city can hardly be distinguished from those places whose metropolitan areas are also shrinking.

Turok and Mykhnenko used population as the main indicator of city trajectories partly for reasons of data availability and consistency with previous research but also because population is a useful indicator of changing urban conditions, although obviously it does not provide a full picture of urban change. Even though the demographic component remains essential in the shrinkage diagnose, the richness of the concept of shrinking cities goes beyond general population decline. Based on the previous SC Project broad definition, Wiechmann (2006) made an attempt to establish his own definition of shrinking city: a densely populated urban area with a minimum population of 10,000 residents that has faced a population loss in large parts of it for more than 2 years, and is undergoing economic transformations with some symptoms of a structural crisis.

More comprehensively, the 21st century shrinkage can be characterized as a global, structural, and multidimensional phenomenon concomitant with visible declining population, declining economy and declining national or international importance (alone or combined), which can affect regions, metropolitan areas, cities, or just parts of them (Pallagst, 2005; Bontje, 2001). Though, as noted earlier, it can also affect small towns and rural areas (Herz, 2006; Martinez-Fernandez and Wu, 2007; Troeger-Weiß and Domhardt, 2007; Vargas-Hernández, 2007; Beetz et al., 2008). Bourne and Simmons (2003) associate shrinkage to those regions and urban areas left behind, which in contrast to thriving ones, face a number of problems: declining and aging populations, a shrinking employment base and a truncated revenue flow. In addition, according to Oswalt (2005), shrinking cities are the places where the losers of the so-called globalized economy live.

These cities are also different from small cities: the change in quantity entails a change in quality and an impact on everyday life (Ebers, 2005). Furthermore, these cities lack to fulfill Wirth's (1938) three criteria; which suggest that, for sociological purposes, a city is a relatively large, dense, and permanent settlement of heterogeneous individuals. Perhaps for this reason, shrinkage is usually accompanied by a projection of an image of decline (Beauregard, 2005) and of potential loss of this traditional notion of urbanity. In spatial terms, it manifests itself through doughnut patterns (in the centre) or its reverse (in the suburbs) and mosaic or perforation patterns (mixed type). In other words, shrinkage might not represent a homogenous phenomenon in a territory. Some parts can even grow slightly, while others stagnate or shrink, although the latter situations have to prevail and/or to be manifest.

From a wider urban and regional planning perspective, it signifies, or should signify, a paradigm change from planning for growth to planning for shrinkage or stagnation (Müller and Siedentop, 2004; Kabisch et al., 2006; Jessen, 2006; Audirac, 2007; Cunningham-Sabot and Fol, 2007; Pallagst, 2007; Wiechmann, 2008b; Rink and Kabisch, 2009).

II.3.3 Awareness of shrinking cities

A review of the definition of the concept of shrinking cities in macro level policy documents (mostly European) demonstrates relative awareness of the phenomenon. Shrinkage is only slowly becoming part of their technical vocabulary, but we can find related expressions like “population decline” or “urban decline”. Nevertheless, even these words are used with reluctance, given the inherent negative connotation of “decline”, and even “decrease”, explained in the background and in section I.1. It should be admitted though that progress has been made during the past decade.

The European Spatial Development Perspective/ ESDP (European Commission, 1999) identifies three trends that will dominate population development in the EU in the following 20 to 30 years, explicitly: declining population; migratory movements; and shifts in age profile. A shift from population growth to population decline is forecasted to occur around the year 2020. The ESDP also recognizes a number of less dynamic towns and cities of the EU, which have a relatively narrow economic basis dominated by a single economic sector, whose decline has had a negative impact on the regional economy as a whole.

The United Nations’ projections (2004) suggest that world population, after moving through the demographic transition from high, and relatively balanced, birth and death rates to low rates, will not necessarily return to the old equilibrium. According to the *World Population to 2300* report: if the medium scenario is correct, future population growth will be slower than it has been at any point since the Industrial Revolution; if the low scenario is correct population decline will ensue; and if the high scenario is correct, future population growth rates will resemble earlier rates before the demographic transition, but population will continue to grow substantially to unprecedented levels.

The European Spatial Planning Observation Network/ ESPON admits that differences in population development are increasing, at regional level; and acknowledges that around 40 per cent of NUTS-3 regions experienced a decline in their population numbers throughout the 1990s (ESPON, 2006). Eighty of the 133 “most declining regions” are identified in Germany, 18 in Bulgaria, 11 in Spain, 10 in Romania, 7 in Estonia, **5 in Portugal** and 4 in the United Kingdom as well as in Latvia.

These regions are described as relatively rural, sparsely populated and geographically remote. Nonetheless, old industrial areas and regions that are more central are also included. In addition, coastal areas specialized in fishing and trade are identified as experiencing decline in population, employment and income, particularly those located in remote areas. This decline is seen as a consequence of fertility decline and population aging, which combine to

alter the *rules* of the regional-demographic *game*. In this context, migration, both inward and outward, becomes increasingly important, from the ESPON standpoint. Finally, regions, which show both a negative natural population change and net losses due to migration, are defined by ESPON as “depopulation areas”.

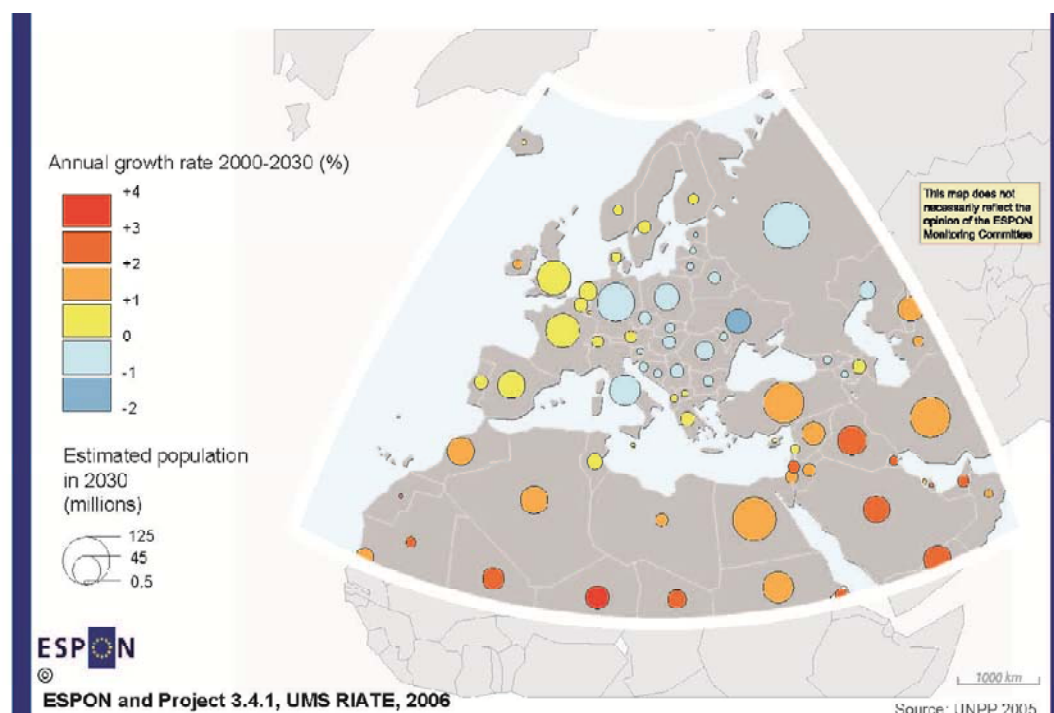
Recently, the Network of Major European Cities/ EUROCITIES (2008) emphasized that many European cities now face population decline – shrinkage – despite the fact that population growth has been (and remains) a major driver for urbanization for a long time. If fertility rates are lower than mortality rates and migration does not fill the gap, shrinkage is unquestionably expected to occur. The EUROCITIES argues that only cities with a positive net migration balance and a strong economic base are presently experiencing on-going population growth, emphasizing the correlation.

As explained by the EUROCITIES, the growth paradigm is still the dominant pattern steering the cities’ development strategies, especially due to strong competition between them. The need to accept urban shrinkage as a valid development pathway, just like urban growth, is considered urgent by the network. The EUROCITIES is aware that shrinking cities now need even more attention and support for their specific demands in policy and governance; and that urban and regional decision-makers need new strategies in spatial planning, such as innovative housing market instruments.

ESPON (2008) identifies a trend of East-West polarization of the pattern of demographic development in 2001-2005, which is considered to challenge the aims of territorial cohesion: regions with population growth are mainly located in Central-Western Europe while regions with population decline are more dominant in Eastern Europe. ESPON’s demographic prospects up to 2030 for Europe and its neighboring countries show significant demographic discrepancy in terms of population growth between Europe and its Eastern neighbors and between Europe and the neighbors to the South. Whereas the neighbors to the East face a negative trend, the neighboring countries to the South and South-East are expected to have higher population growth than Europe (Figure 6).

The recent *State of the World’s Cities 2008/2009* (UN-HABITAT, 2008) dedicates considerable attention to shrinking cities, its causes and future developments. It is admitted by the UN-HABITAT that although slow or negative urban growth is mostly a developed-world phenomenon, it is also occurring in developing countries. A UN-HABITAT analysis of 1,408 cities in the developing world showed that 143 cities, or 10.2 per cent of the sample, experienced a reduction in population between 1990 and 2000. These 143 cities experienced the loss of 13 million people from 1990 to 2000. The phenomenon of declining populations in

cities of the developing world is considered relatively new, an emerging trend that is not yet as prevalent as it is in the developed world; however, the UN-HABITAT assert that population loss may be a prelude to a new urban trend that is starting to unfold there.



Source: ESPON (2008)

Figure 6. Population growth in EU and its neighborhood in 2030

The *Global Report on Human Settlements 2009* also highlights that in developed countries some of the key issues are shrinking cities and the retrofitting of decaying areas within the city (UN-HABITAT, 2007), a fact already vaguely mentioned in the *State of the World's Cities 2006/2007* (UN-HABITAT, 2006). UN-HABITAT (2009) acknowledges that shrinking cities are to be found in the developed and transitional regions of the world, but is aware that more recently, city shrinkage has occurred in some developing countries as well.

In the former, the demographic trends with the most far-reaching implications for planning are urban population decline and an aging population; whereas in the latter, comparatively, international migration renders the features of shrinkage and aging less intense. In the report, planning challenges in both developed and transitional country contexts are pointed out: determining how to meet the cost of underused infrastructure; identifying alternative uses for abandoned social facilities, huge swathes of vacant housing units, as well as commercial and industrial facilities; managing increased demand on healthcare, recreation, transportation and other facilities for the elderly, due to aging.

II.3.4 Typologies of shrinking cities

The phenomenon of shrinkage can be perceived all over the world, although within different contexts and circumstances; despite this, the literature provides some typologies of shrinking cities, most of which have a national nature (Cunningham-Sabot and Fol, 2007; Martinez-Fernandez and Wu, 2007; Moraes, 2007; Beauregard, 2009), albeit there are some attempts to propose a global (Western) typology (Pallagst, 2005; Wiechmann, 2003, 2006, 2008c). When setting the background in Chapter I and discussing cause-effect processes in subsection II.2.3, we had the opportunity to get a feel for some of the differences as well as similarities that can be found in shrinking territories, but in this section, we will look at them more attentively.

Considering that urban decline and the loss of employment opportunities are closely linked in a downward spiral, leading to an out-migration of population, Pallagst (2005) proposes one typology of shrinkage based on its causes. According to Pallagst, the process of urban decline is often due to the post-industrial transformation of cities and to the shift from manufacturing activities to services, a process that has left industrial and working-class cities with very few resources in terms of employment and fiscal base. Pallagst attributes urban decline to long-term industrial transformation (e.g. from one production sector to another), rapid economic breakdowns (e.g. collapse of the dot-com business), environmental threats (e.g. hazards, pollution), and political transformation (e.g. post-socialist systems and economic changes).

Similarly, Wiechmann (2006) formulates a typology of shrinking cities, illustrated in Table 3, based on causes, adding an extra cause to the above: suburbanization (hollowing out, sprawl, segregation, etc.). The other three causes are: industrial transformation (e.g. old industrial areas and Rustbelts); economical, environmental and political selective collapses (e.g. oil crisis and abandonment of mining areas); and political strategies (e.g. depopulation areas). Previously, Wiechmann (2003) had suggested a typology for European shrinking regions. Four main types are identified:

- Western European industrial agglomerations in economic decline (e.g. Ruhr, Mersey Side, Pays Noir);
- Peripheral, sparsely populated depopulation areas (primarily northern Sweden, eastern Finland and Scotland);
- Transformation regions with serious industrial regression (large parts of Russia and the Central and Eastern European states);
- Rural emigration areas with a rapid decrease of births (e.g. parts of Spain and Italy).

Table 3. Types of shrinking cities based on causes

Suburbanization	Industrial Transformation	Selective Collapses	Political Strategies
Hollowing Out, 'Doughnut' Sprawl Segregation ...	Old Industrial Areas Rustbelts (Steel, Coal) Harbors, Dockyards Textile Industries ...	<u>Economical:</u> Oil crisis Dot-com Hype Abandonment of Mining Areas <u>Environmental:</u> (Natural) Disaster Pollution Epidemics <u>Political:</u> Banishment War Famine ...	Controlled (Re)Settlements Depopulation Areas Former controlled Colonization Areas ...

Source: Wiechmann (2006)

The research developed by Martinez-Fernandez and Wu (2007) revealed that, in Australia, examples of shrinkage are more common in areas outside the major cities, inner regional cities and outer regional cities, though some Australian suburban areas of bigger cities have also experienced shrinkage. The authors identify three patterns of shrinkage in Australia:

- Urban shrinkage: characterized by long-term population and/or economic decline of large cities or parts of large cities or metropolitan areas. It includes suburbanization change or doughnut effects. Examples of urban shrinkage are found in each Australian capital city and predominate in the middle suburbs surrounding the inner city;
- Rural shrinkage: characterized by long-term population and/or economic decline of smaller towns or a cluster of small towns in a rural region. All states, but the Australian Capital Territory (ACT), have shrinking towns in their rural areas. Most towns are small agriculture or cattle based communities, some with large farms suffering the effects of the prolonged drought. Some larger towns that have been particularly hard hit, such as Goulbourn in NSW or Peterborough in South-Australia, are regional centers and the trade base for primary industry products, education and social life. Consequently, the impact of climate change is the greatest factor in their development right now;
- Industrial centre decline: characterized by long-term population and/or economic decline of small and medium-sized cities servicing a mining site, a system of mining sites, mining

settlements or a manufacturing industry. Many of these towns experience periods of growth and shrinkage depending on international mineral and manufacturing markets. Employing an historical perspective, Beauregard (2009) mounts a quantitative and theoretical assessment of population loss in the large cities of the United States of America. Three periods are considered by Beauregard: one prior to 1920 when large city population loss was aberrant; a second which captures the severe decline of the decades after World War II, and a third that encompasses the more recent shrinkage of cities (Table 4). The author measures prevalence, severity, and persistence of population loss of and analyzes it geographically. Beauregard also identifies factors affecting population loss in the United States which are common and unique to each period.

Table 4. Dominant factors in population loss by period in the United States of America

Aberrant loss 1820–1920	Decline 1950–1980	Shrinkage 1980–2000
<i>Commonalities</i> Westward expansion Restructuring from trade to manufacturing Technological change	regional shifts restructuring from manufacturing to services increased reliance on consumer goods suburbanization prior decades of disinvestment racial antagonisms poor public services constrained annexation	persistence of regional shifts post industrialism, part II quality-of-life criteria and innovation suburbanization prior decades of disinvestment racial antagonisms poor public services constrained annexation
<i>Particularities</i> Fires and epidemics Reconstruction	antiurban federal policies drop-off in immigration great migration	

Source: Beauregard (2009)

More recently, there has been an attempt by Wu et al. (2008), referred to in Wiechmann (2008c) to increment further a typology of shrinking cities adding other dimensions. Three types are acknowledged corresponding to different circumstances of shrinkage: imposition (e.g. conflicts/war and depletion of resources), resulting from comparative disadvantages (lifestyle attractions and climatic conditions), or from societal/global changes (e.g. absolute decline of population). The typology is based on the characteristics of shrinkage and its underlying causes, but also includes information about selected contemporary examples (e.g. Chinese county towns and villages, Dresden, in Germany, and Poland) and policy implications examples (e.g. reinforce regional resilience) (see Table 5).

Table 5. Typology of shrinking cities by circumstance

Type	Characteristics	Underlying Causes	Selected Contemporary Examples	Policy Implications (examples)
Shrinkage is imposed	Conflicts/war Political or economic reforms Depletion of resources	Political and military conflicts Spatial/Administrative Reforms national govt. Uneconomic exploitation of natural resources	Beirut, Lebanon; Phnom Penh Chinese county towns & villages Nauru & other mining cities including resource towns	Conflict resolution Modification of administrative reforms New technology Efficient methods of resource extraction
Shrinkage due to comparative disadvantages	Lack of economic opportunities/diversity Lifestyle attractions Climatic conditions Infrastructure provisions	Core/periphery drift Globalization De-industrialization Re-industrialization (rise of Regional inequalities; Knowledge economy) Climatic differences Metropolitan lifestyle	Poland relative to EU S. Korea – regions outside of Seoul Metro region France (non metro Paris) Scotland NE China old industrial centers Rustbelt (USA)	Reinforce regional resilience Ensure embeddedness of economic activities Regional decentralization policies
Shrinkage due to societal / global changes	Absolute decline of population Aging population Climate change	Low birth rate (fertility decline) Low population replacement rate Population structure Demographic onus Global climate changes	Dresden, Germany Kyoto, Japan Australian outback towns	Population policy Urban amenities/infrastructures investments Global climate policies/programs

Source: Wu et al. (2008, p. 5) referred to by Wiechmann (2008c)

Moraes (2007) asserts that in Brazil the problem of urban shrinkage does not follow the patterns found in Europe or the USA. According to Moraes, an unjust territorial dynamic generated by the Brazilian land oligopoly, the government's incapacity to produce jobs, the highly speculative real estate market, the lack of housing subsidies for low income workers, and the inadequate use of land policies has led to the emergence of empty rural towns, emptied and decaying (or sometimes gentrified) metropolitan areas, in opposition to swollen slums on metropolitan outskirts. Besides, much of the shrinkage in Brazilian cities was also caused by the relatively high mobility of the elite within the metropolis together with a speculative real estate process. Consequently, trailing the higher income population, services

and commerce have left the city's central area, creating new "subcenters" and left behind large amounts of idle land (Moraes, 2007).

Cunningham-Sabot and Fol (2007) find three types of urban areas are shrinking in France. The first comprises large urban areas whose decline is the result of deindustrialization²¹. Economic development in these shrinking cities was traditionally based on mining, port industries, or another single industry. The crisis that occurred in these industrial sectors has led to economic, social, and demographic decline. The majority of shrinking cities in France belong to a second type: small urban areas located in the middle of the country, from the Ardennes in the North to the Pyrenees in the South, passing through the Massif Central²². Shrinking urban areas are usually isolated from infrastructure networks or urban network.

The authors observe that a third type of urban shrinkage is occurring within urban areas that are growing as a whole: city centers are declining while outer suburbs are gaining population. This process, often related to urban sprawl, is particularly observable in fast growing regions such as in the South of France. This type of shrinkage can also affect "first suburbs"—those places in industrial countries that were the first to develop after their city centers. In France, these suburbs were characterized by their robust industrial infrastructure and by a large working class population, who lived in large housing estates called "grands ensembles".

Cunningham-Sabot and Fol believe that the first two types of shrinking urban areas reflect the role of globalization on shrinkage processes: «The decline of large cities is clearly the result of the redistribution of production at the international scale, while the smaller cities have been left behind by globalization, being too far from the larger metropolises and from networks to be considered actors in the process». In the third type, the deindustrialization process, along with the "flight" of a large share of their inhabitants to the outer suburbs, led to a dramatic decline of these suburban towns in terms of demographic, economic, and social evolution.

Regarding Great Britain, the authors assert that the areas affected by shrinkage are: metropolitan areas and/or industrial areas clustered around the middle and north of the country, in England; the central belt, in Scotland (especially in Greater Glasgow and the Western Isles), and also, as in Wales, certain peripheral areas such as the islands. This uneven economic fate, between the prosperous southeast and the deprived northwest, has been strengthened by the economic downturn, in particular in industrial sectors, and this regional difference does not diminish when looking at growth and shrinkage of population.

²¹ Among the 52 largest urban areas in France, only 8 are shrinking, and almost all of them are located in declining industrial regions such as Lorraine, Nord-Pas-de-Calais and Haute-Normandie.

²² In four central "regions"—Champagne-Ardenne, Midi-Pyrénées, Limousin, and Bourgogne—more than three quarters of small urban areas decreased in population between 1990 and 1999.

Summary of Chapter II

Growth and shrinkage are two faces of the same coin and have always coexisted. The trends and forecasts denote that this simultaneousness will increase in a more intense manner. Notwithstanding, growth has been planning's goal for centuries, unlike shrinkage that has been consistently undermined in theory and practice. However growth has admitted faults, it is not perfect, and shrinkage may introduce opportunities to change, otherwise unavailable. This cannot be done without a paradigm change, from planning for growth to planning for shrinkage, or simply planning for development.

The most visible sign of shrinkage is population decline, and here facts are undeniable. Statistics show that fertility rates reach a new low year after year and, on the other hand, aging is unprecedentedly gaining ground. Even though these trends have been affecting mostly developed countries, least developed countries and developing countries are said to follow sooner than one might think. Thus this will increasingly be a global phenomenon. Consequently, population change is a determinant indicator of shrinkage, and migration is an important cause of population decrease for planners, unlike fertility that is beyond usual planning scope. While reasons for low fertility are intertwined with second demographic transition, reasons for out-migration are wide-ranging, as are spatial patterns of out-migration. Currently, the characteristics of shrinkage mainly correspond to the consequences of shrinkage; in synthesis, these are: decreasing population density; over-dimensioned and underutilized infrastructure; increasing transaction and per unit costs of public services; decreasing tax revenues due to a smaller tax base; increasing vacancy of spaces and buildings; slack housing market; decreasing purchasing power, decreasing property prices; decreasing population heterogeneity and growing segregation; increasing social problems; increasing crime incidence; death of social life, of public sphere, creativity and innovation.

In regard to the definition of shrinking cities there is no consensus, and a lot of loose ends. We will keep the definition suggested in section I.2: territories experiencing population decrease, due to various reasons, and that may or may not have started to spatially shrink. As a result, there is no established global typology, although nationally there are good exercises. In addition, existent typologies refer mostly to causes, rather than consequence/characteristics. Shrinking cities are not a new phenomenon but are relatively recent in spatial planning debate. Although it is not comprehensive as required, the awareness of shrinkage has noticeably progressed in recent times at a macro level, and is expected to steadily grow. Nonetheless it does not go much beyond the mere question of population decline, or advice to take the issue into consideration; mirroring a relative lack of knowledge regarding the topic.

CHAPTER III. Planning and shrinkage

This chapter presents a debate about the relation between planning and shrinkage, to demonstrate that planning's angle is still deeply based on the fact that population decrease is transitory and short-termed, thus reversible through planning's traditional theory and practice.

We first present the renewal mechanisms and fields of action identified in planning in recognized situations of population decrease. Before the phenomenon described in the previous chapters, we then look for the dominant approaches, and strategies in place as well as recommendations made on this topic. It should be noted that we only refer to literature that expressly mentions shrinkage/population decrease. Information has been filtered accordingly. Clearly, that there would be much more to it, would our intention be to explore the full contribution of a certain planning approach, strategy or recommendation.

At this stage, we can already anticipate that the approaches and strategies in action in situations of population decrease are not that different from conventional planning approaches and strategies for growth. In some specific areas of this research field, it has been taken a step forward and strategies (finance, vacant property, de-suburbanization and social capitalization, attraction-retention, and regional strategies) and recommendations for technical infrastructure, transportation planning, and housing policy have been proposed.

Sometimes, not surprisingly, these approaches and strategies are inadvertently the same ones which contributed to population decrease. There are, however, some innovations underway, although they are seldom disruptive. Moreover, we should acknowledge that it is not always clear-cut to make a distinction between tradition and innovation in planning in this situation.

III.1 Renewal Mechanisms and Fields of Action

III.1.1 Renewal mechanisms

Mostly referring to the German case, Jessen (2006) states that rarely so much innovative effort has been devoted by the planning profession in so brief a period: «The “built city under pressure for change” has put the discipline of urban planning under pressure to innovate». However, the author finds it is too early to assess how shrinking cities will develop and what part planning can play at all in that situation.

The quest of recent years for regeneration concepts in shrinking cities is the background to Jessen’s examination of renewal mechanisms in planning. Jessen tries to answer the question of how is the discipline to come by new insights and substantive orientations, improved methods, procedures, organizational and financing models? This, in turn, raises other questions: a) How appropriate is it to speak of innovation in planning? b) What media does planning employ to renew itself? c) What renewal mechanisms have developed independently of specific problem fields and the changing conception of the function of planning? And how important are models? d) What drives renewal in the context of the new planning tasks?

The author asserts that urban planning employs a variety of media to renew itself: competitions, prototypes, building exhibitions, and urban research. He concludes that as the conception of problems and tasks that characterize urban and regional planning in each successive historical phase changes, so do the mechanisms that bring about these innovations and the importance that models assume in them. The incentive for renewal in current regeneration comes from within society, from individual communities, and from the responsible various level government institutions, which grant the required financial support.

Referring mainly to the German experience, Jessen identifies different contexts in which new procedures, approaches, and concepts for urban and regional planning in shrinking cities can be sought: (i) internal innovative impetus- first approaches have been developed by practitioners in committed local authorities facing specific problems; (ii) top-down innovative impetus- especially the rapidly organized federal ministry Urban Renewal East program; (iii) lateral innovative impetus- one example is the recently completed project “Shrinking Cities” financed by the (German) Cultural Foundation of the Federal Government.

In these approaches to shrinkage, Jessen finds remarkable the abundance of urban structure and development models in their traditional form but with a contrary function – shrinkage. Thus, the same parameters, like density, function, centre distribution, and overall development, underlie illustrative spatial statements made about the intended direction and intensity of shrinkage (instead of growth).

III.1.1 Fields of action

Oswalt (2008) asserts that, over the course of the work in the German Shrinking Cities Project (see p. 1), it has been investigated various possible fields of action in giving shape to urban space. For each field of action, have been formulated several urban concepts, encompassing only part of the complexity of urban reality, that are, in Oswalt's opinion, inevitably incomplete. These concepts, presented bellow as described by Oswalt, outline conceptual models, which are the basis for any kind of urban action.

The field "Deconstructing" examines the questions of how urban rollback – that is, the process of desurbanization – can be shaped and what qualities can be extracted of the remains. The field "Revaluating" explores how the traditional, the abandoned, can be reappropriated and used differently. The field "Reorganizing" is concerned with the question of social organization: how can processes, structures, and programs be conceived differently in order to create new opportunities for development? The field "Imagining" considers urban action as the perspective of the imagination and addresses mental processes of communication memory, identity creation, and the production of desire.

Deconstructing

Demolition City: Demolition is a means of adjusting shrinking cities to a drop in local demand, which has gained an unknown quality up till now: it is an end and an issue in itself. Oswalt argues that the question of dying cities follows as a consequence: what does it mean when cities are completely razed to the ground and finally disappear?

Evolutionary City: Cities and buildings are subject to a constant process of transformation, the course of which can be rarely anticipated. Hence, planning means creating spatial structures that are open to various future developments and that thus become spaces of potential. Design can also consist of making processes of transformation visible and thus can challenge our perception of permanence.

Feral City: Urban withdrawal creates vacant spaces. Consequently, wasteland, forests, and fields crawl back into the city and increasingly determine its image and its structure. In these circumstances, urban agriculture or community gardens are an opportunity to generate new social networks or the basis for local economies.

Contraction City: Shrinkage rouses hopes that cities might be reduced to their essential core and in this way make qualitative gains. Controlled shrinkage can aim to develop a compact city, an urban archipelago, or a reticular strip city. Despite the open property market and a mobile society, these comprehensive spatial concepts mold perceptions of the city and influence where spatial interventions are located.

Depleted City: Shrinking cities have reduced density, but spill over into surrounding areas despite the decline in urban substance. Spatial interventions, planning strategies, new organizational forms, and digital technologies help ensure that existing urban qualities can be retained and new ones can be created. The parameters of time, mobility, and accessibility take the place once held by physical presence. Commuting and tourism turn places into part-time towns.

Polarized Regional City: The ideal of equitable development is being eroded. Models propose that spatial development should be polarized: compaction of urban agglomerations vis-à-vis the depletion of peripheral areas. Oswalt asks: Can regional disparity be turned into a productive force? Can peripheral regions develop qualities beyond those of growth scenarios? The potential for taking action is increased through the creation, within agglomerations, of regional administrations that encompass zones of shrinkage and growth in equal measure.

Reevaluating

Temporary City: A surplus of space provides new possibilities. Lacking long-term options for repurposing, ephemeral activities of parties who have little capital to spare are put in place. They experiment with new uses and forms of cooperation, create social interactions, and give new cultural meaning to what was found there. Although not every vacant space will find interested parties and actions are temporary; they can be seeds for longer-term development.

Pioneer City: The unutilized and cheap space in interesting buildings and landscapes offers opportunities for alternative lifestyles. Pioneers of space whether entrepreneurs, dropouts, or cultural producers move into shrinking areas in order to build their lives, bringing with them great motivation and a willingness to invest, as it opens up new perspectives on life for them.

Reinterpreted City: Unused materials and buildings assume new functions through reinterpretation and reorganization, saving resources. From the difference between the given and the new desired situation results a tension, producing new typologies, programs, and connections, and also reveals unexpected qualities of the outwardly obsolete housing.

Reorganizing

Do-It-Yourself City: Crises in government organization and economic development have led to a new emphasis on self-organization, and challenge citizens to take economic, social, cultural, and urban development into their own hands, leading to contradictory goals. Is the intention to reduce state spending and hand over the responsibility for public assistance and the common good to citizens? Or should decision making be decentralized, with more power given to the less privileged and space for innovation created?

Strong City: The crisis of the city can only be overcome by giving it strength. The authority to make decisions and plan a course of action should be shifted from the state back to the municipalities, which must be reorganized. The spatial expansion of the municipalities is a prerequisite for shaping urban development and balancing out regional disparities. Competencies and tasks should be renegotiated between municipalities, society, and businesses, however without orienting development toward private economic criteria.

Commodified City: The city is a commodity in capitalism. Economic commoditization of urban spaces shapes the city; the logic of market growth determines the rules. The individual drive toward economic efficiency sometimes works against the goal of attaining overall prosperity. Communal forms of granting loans and utilizing property can open up new possibilities and promise greater prosperity for both the individual and society as a whole, particularly during times of crisis.

Emerging City: The city is only to a limited extent the product of conscious planning; largely it is the result of rules and forces originating far beyond the realm of planning. A city's development is shaped by the consequences and side effects of laws, funding programs, markets, and technological progress. Relevant interventions in urban development are thus dependent upon changes in the social parameters, such as in immigration policy, property laws, or economic development measures.

Exceptional City: Territorial islands allow for experimentation with special rules or measures to balance out local weaknesses, (e.g. granting unique privileges), making them attractive for immigrants and enabling them to regenerate. Oswalt asserts that while special economic zones are limited to offering economic incentives, emancipatory projects and social libertarian experiments are, by contrast, very rare.

Imagining

Communicating City: Cities are places of communication and exchange, a condition of urban life critically undermined by migration, population decline, fragmentation, and introversion. Artistic interventions foster communication and new relationships between individuals, between a city and its residents, and the people who moved away and those who stayed. Novel forms of representation and changes in perception lead to reflection about oneself and a reappraisal of one's environment. Even conflicting opinions lend quality to public sphere.

Marketing City: Cities thrive on an influx of residents, tourists, and investors. After losing economic sectors once vital to their identity, cities seek to create a new profile and promote their locational advantages. This is done by means of marketing campaigns, major events, and

prestigious architectural projects, targeting local residents and a public beyond the city, thus attempting to satisfy contradictory demands.

Profiled City: Cities acquire a profile by building on their singular local strengths. Conflict, crises, and difference can be catalysts for the development of new identities and local character. Urban profiling is imperative so that cities with uneven spatial development can assert themselves as competitive locations.

Imaginary City: Imagination generates different pictures of the past and the future. Practices of remembrance shape our understanding of history and in this way influence how we see the present. Desire designs a different future, opens up space for new possibilities, and triggers change in the present; thus urban action is born of the power of our imagination.

III.2 Approaches, Strategies and Recommendations

III.2.1 Approaches

The role of housing policy and integrated regeneration

Liebmann and Robischon (2006) assert that public discussion on the subject of city shrinkage started a few years ago, when housing vacancies became evident in Germany. In East Germany, this fact followed reunification, since which almost all cities have lost significant shares of their population (more than 25 per cent in some cases). Ever since, discussion and urban regeneration activities focused on this most visible part of shrinkage – vacancies. To tackle it, a highly participated federal program for urban renewal, *Stadtumbau Ost* (Urban Restructuring East), has been laid out, subsidizing the demolition of flats (up to 350,000 flats by 2009, in more than 1 million vacant). This seven year program was intended to stabilize the housing market by tearing down abandoned or underused buildings and improving the more stable housing quarters, in order to adjust it to present and estimated population size (Bontje, 2004; Wiechmann, 2008b).

A precondition for obtaining funding within this program was the existence of integrated city-wide urban development strategies. According to Wiechmann (2008b), the idea was that local strategies of urban restructuring should contribute to adapting the city to the consequences of urban shrinkage and should offer favorable conditions for new development opportunities. In Leipzig, for example, the houses will most often not be replaced by new ones, but replaced by parks or squares (Bontje, 2004). The city planners hope to make a virtue out of a necessity and turn the once densely built neighborhoods (especially those of the late 19th and early 20th century) into more attractive, greener environments. Stimulating owner-occupancy²³ is seen as an important strategy to strengthen the ties between the city and its inhabitants, in addition to the adjustments of the housing stock.

Even so, Wiechmann (2008b) states that, in general, most strategies focus narrowly on housing market issues and local action is often confined to the removal of abandoned residential buildings, although these problems cannot be solved only in the housing market since they are caused by the overarching trajectories of depopulation and economic decline. Likewise, Bontje (2004) argues that a coherent urban development strategy is still hard to find. There are a lot of plans, dealing with parts of the problem, but they do not meet under the umbrella of an integrated strategy. In Liebmann and Robischon's perspective too, even

²³ In 2000, only 11 per cent of the dwellings in Leipzig were owner-occupied.

though demolition of vacant buildings is an important part of the regeneration of shrinking cities, it will not be sufficient in the short-term.

For example, Bontje (2004) argues that the long-term future perspective of the city would be better served with strategies that stabilize the current population size and gradually increase employment opportunities, than with a return to very optimistic growth scenarios. According to Liebmann and Robischon, it is necessary to recognize the complexity of shrinkage and deal with it with comprehensive regeneration multidimensional approaches. The authors consider that the regeneration of shrinking cities requires new perspectives (structural, economic, social, cultural, and societal), and specifically in the housing market; in which fostering the open exchange of ideas and people could encourage a culture of urban creativity.

In Liebmann and Robischon's viewpoint, to generate positive perspectives for the future, it will also be necessary for East German cities to *strengthen their strengths*. With the failure of conventional methods of attracting businesses, the authors find it is becoming increasingly difficult to develop specific, comparative strengths of a city. In fact, cities have attempted to promote themselves through one or several *new*²⁴ specialized profiles (e.g. Leipzig's *City of Music*, *Car Industry City*, *Biocity* and *Media City*; Bontje, 2004), rooted in local culture and traditions and/or embedded in broader economic clustering strategies.

Overall, Wiechmann (2008a, 2008b) concludes that, to some extent, the experiences with conversion strategies in East Germany can be of value for other deindustrializing regions. Especially because, perhaps for the first time in modern urban and regional planning, planners disengaged from the illusion of new growth and aspired to conduct a pragmatic deconstruction and planned shrinkage. They deserve credit for the way they confronted the reality of the shrinking or stagnating city. As we will see further on, the most ground-breaking approaches, strategies and recommendations often have German origin.

The role of culture and creative industries

Aber (2006, 2007) examines the role that culture and creativity, considered the new form of capital, can play in reinventing shrinking cities in the context of the new economy. The author focuses on examples that best represent good practices in economic recovery through culture-led regeneration and how they can be implemented in shrinking cities. Through model projects of good-practices and case studies²⁵ (from USA, Europe and the Pacific Rim), Aber

²⁴ By new it is meant different from previous specializations, which were responsible for shrinkage in the past.

²⁵ Aber drew the case studies from model projects and strategies in the categories: (i) creative industries; (ii) new media initiatives; (iii) arts and creative education projects preparing citizens for the creative economy; (iv) region to region collaborations emphasizing creative talent and global industry linkages.

discusses and presents innovative approaches taken by leading city-regions that integrate economic development, cultural development, and urban design to create jobs, generate income, enhance the municipal image and improve the quality of life vis-à-vis a city's ability to attract and retain the creative sector. The author argues it is this holistic aspect of successful culture-led regeneration that ultimately informs sustainable planning.

From a British perspective, Brown et al. (2004) state that the cultural or creative industries have become visible and explicitly linked to economic development and that music has gained prominence, with several local authorities attempting to create or promote a 'local music industry'. The authors focus on two local initiatives which have a strong music industry or music sector focus: the Cultural Industries Quarter (CI Q) in Sheffield; and the Northern Quarter (NQ) area of Manchester. Brown et al. make a distinction between the two quarter initiatives: Sheffield attempted to establish a quarter more or less from scratch – providing buildings, facilities and a venue in order to attract cultural producers into the area – whereas the NQ already had a large number of businesses located within it before the council recognized it as a cultural/creative quarter. This idea of cultural/creative quarters involved new uses of old buildings, a revitalization of the urban realm and the promotion of a highly networked group of compatible businesses.

However, in the authors' point of view such policies raise a number of questions about cultural policy, about local economic strategies and about the music industry itself. Brown et al. agree that the answer lays in the integration of the business of culture into a wider cultural policy — which in the end is a challenge to 'free market' economics. In terms of music policy, the authors believe it would be useful to recognize the wider 'culture' of the city and how this relates to actual participation in the production, consumption and distribution of music. Likewise, Aber (2007) asserts that cities attempting to re-invent themselves need to find a balance in their investments between image and identity, so that all the pillars of sustainable development – cultural and creative capital, social capital, and economic capital – can be maintained and enhanced.

The role of knowledge, innovation and systems of innovation

Based on the Australian context, Martinez-Fernandez and Wu (2006) believe that innovation might have a major role to play in the transformation processes of shrinking cities, already recognized and demonstrated by international research in different circumstances. Some analysts, cited by the authors, argue that innovation holds the key to economic growth; others focus on innovative regional clusters as an engine of economic growth, etc. Conversely, the authors feel that the application of the innovation literature to the analysis of new planning

paradigms has not attracted enough attention of the academic community. Hence, it is lacking a more detailed analysis of communities in transformation through cycles of shrinkage and growth and the role that innovation, or its absence, plays in the decline.

Martinez-Fernandez and Wu (2007) argue that policy makers in shrinking cities should look at ways to increase the connectivity of their Regional Innovation System (RIS). Particularly, in the authors' viewpoint, the mining site or main manufacturing industry should be seen as a critical intellectual asset for the development of knowledge networks across the city and region, together with any research and education institution, scientists, industry associations, community and government organizations. The development of such network could facilitate the flow of knowledge among different stakeholders in the city, the connection to other international networks through its more international participants and ultimately could enrich the regional innovation system. These may be the seeds for developing learning environments to hold innovation, creativity and vitality; all key factors to keep a place competitive.

On the context of shrinkage in the United States of America, Hancock (2007) analyzed the 2006 Silicon Valley index, which showed that the region was no longer losing jobs at the dramatic pace ushered in by the dot-com collapse. For the first time in four years, Silicon Valley added more jobs than it lost, but this fact did not tell much about the region's prospects for the future. The author describes how Silicon Valley has experienced a turbulent five-year period of economic restructuring and occupational change, producing both unprecedented job losses and substantial wage gains. The author then debates whether creative edge is a competitive advantage in the global economy and what Silicon Valley's creative edge is, concluding that the valley has become a growing centre for new idea creation.

The role of information and communications technology

Audirac (2002) explores the link between information technology (IT) and urban form. The author does so by examining recent literature pertaining to two urban theorizing traditions: deconcentration and economic-restructuring. Whereas in the deconcentration school, Audirac explains, IT-urban form relationships are the newest stage in a sequence of technological innovations in transportation and communications posing new challenges to the geography of accessibility; in the restructuring school, these relationships are theorized as pervasive sociotechnical change transforming the organization of production, institutions, and everyday life. Despite their paradigmatic differences, both schools explore urban decentralization and/or centralization questions and identify urban dispersing effects related to synergies between IT and the automobile society.

Audirac (2005) discusses how information and communications technology (ICT), interpreted as (r)evolutionary, permeates two broad urban research traditions of metropolitan change. The author reviews research findings from these two traditions concerning metropolitan population and employment redistribution. This review suggests that synergies between ICT and our car, truck, and airplane society may be a thrust behind well-established urban decentralization and deconcentration trends. Moreover, Audirac's review of research on ICT-intensive firms, assumed to be the "glue" of urban agglomerations, reveals that metropolitan dispersion and regional deconcentration are occurring. The author stresses that, although both centrifugal and centripetal forces are shaping the form of the information age metropolis, (rather than central city renaissance or absolute urban dissolution), the resulting spatially distributed network pattern is polycentric and evolving into a regional constellation of ICT agglomerations interconnected via high-speed transportation and digital networks. Audirac argues such logic poses challenges to smart growth's metropolitan agenda.

Audirac (2007) explores the recent surge in European shrinking cities research and compares it with its American counterpart. Audirac offers (1) an overview of theoretical positions on urban decline and planning interventions; and (2) based on an examination of realized utopias of spatial form, the author proposes an alternative way for understanding the co-presence of growth and shrinkage in urbanism. Audirac argues that slow-food movement and other slow-world activities, which offer respite from fast urbanism's repetitive sameness, from its harried tempo and ecological destructiveness, could become alternative anti-globalization utopias with potential to materialize in shrinking cities. Similarly, regeneration schemes that convert unused infrastructure and vacant lands to green open space could become carbon credit sellers in greenhouse gas cap-and-trade programs.

The role of environmental sustainability issues

Mulligan (2006) considers that actions in the environmental sphere can help to address the challenges posed by shrinkage and compares experiences in a number of cities in Europe and in the USA, including Pittsburgh (USA), Gelsenkirchen (Germany), Newark and Sherwood (UK). Mulligan assesses different manifestations of shrinkage, due to different factors and processes, and their relation to sustainability criteria used for established assessment methodologies in the built environment. A group of numerical indicators is proposed, to try to allow the characteristics of various cities to be compared and explore the transformative processes that have operated in them over time. Mulligan examines policy approaches in a number of cities faced with conditions of economic crisis attended by population loss: why issues of environmental have been targeted; what measures were put in place; and whether

positive results can yet be reported. Mulligan's thesis is that environmental concerns can act as an important catalyst for change in conditions of stasis and retrenchment.

Focusing on shrinking cities, Mulligan (2007) addresses the response to the progressive consciousness of environmental change, as it poses a new context for this phenomenon. Mulligan proposes a set of possible metrics for environmental action at the city level, based on methodologies such as BREEAM²⁶ and LEED²⁷. These metrics fall into two categories: a set of numerical variables (e.g. installed capacity of renewable energy sources, percentage of brownfield development); and a tick list of indicators, (e.g. active implementation of an energy policy by city government). The author focuses again on the USA and Europe. The datasets of environmental and population characteristics enable Mulligan with a comparison between the rate at which a city's population is changing, and whether it is a member of an environmentally-active network (International Coalition for Local Energy Initiatives/ ICLEI and Sustainable Energy Europe network). The hypothesis thought to be proved by Mulligan is that shrinking cities are more likely to be involved in such actions, perhaps because environmental activism is seen as a useful catalyst for change, improving a city's image in order to attract new, regenerative investment.

The role of community involvement

Shrinkage, aging population, and increasing social segregation are typical of cities in the metropolitan core of North Rhine-Westphalia (Germany) according to Strohmeier and Bader (2004). The authors believe that urban society is "de-integrating" and social deprivation is concentrating in certain urban districts. In the Ruhr District, the northern areas of cities are the most affected, still strongly marked by the recent coal and steel past. As said by the authors, the majority of the new generation is growing up in an urban milieu, in which social integration and political and civil society participation are declining. In this context, Strohmeier and Bader suggest approaches and strategies for action based on the assumption that promoting participation can help reduce states of disadvantage. In other words: «The precondition for participation is social integration and the identification of residents with their city and their district», which are in a sense a side product of an essentially self-interested

²⁶ BRE Environmental Assessment Method (BREEAM) is the world's longest and most widely used environmental assessment method for buildings. It sets the standard for best practice in sustainable development and demonstrates a level of achievement. It has become the vocabulary used to describe a building's environmental performance. [in <http://www.breeam.org>]

²⁷ The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the USA' accepted benchmark for the design, construction, and operation of high performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. [in <http://www.usgbc.org>]

engagement. The starting point for such forms of participation is to appeal to individual usefulness through short-term and low input projects *Do-It-Yourself Projects*, more than projects such as *Help decide!* or *Join In!*, through which networks are established among people and costs are saved.

Sucato (2006) corroborates the authors' idea that, from a West German perspective, the processes of demographic change and segregation are becoming spatially differentiated: «Whether it concerns the decline of the population, the growing percentage of elderly people or persons with a migrant background, the cities and regions in North Rhine-Westphalia experience it all different». Growth and decline coexist in and among cities and regions. The author regards that the processes of social, ethnic and demographic segregation are complex and interrelated, especially on city level in which the three overlap and influence one another. Sucato considers that the current West-German perspective on demographic changes is different from the East German as a result of a lower pressure on the housing market, but that the future will eventually bring similar effects. Many of the projects and measures are set in the broader framework of public area-based programs such as the *Federal-Länder Programmes Die Soziale Stadt* (Socially Integrative City), in North Rhine Westphalia since 1993; and *Stadtumbau West* (Urban Restructuring West), in West Germany since 2004. The former aims at stabilization of deprived urban areas and hinder further polarization, and the latter at recreation and stimulation of the functional cohesion of these areas.

Vargas-Hernández (2006, 2007) analyzed the importance it had to rescue, defend and promote the historic and Cultural heritage of Cerro de San Pedro, and specifically to revitalize a mining town in San Luis Potosí (México). The author's research highlights the dearth of sensitivity of foreign mining companies toward the consequents of their activities upon the communities and environment. The case also illustrates the lack of negotiation between firms, communities, new social movements and governments in planning, development and revitalization of a shrinking colonial town. At the centre of the disagreement was the cheap but efficient technology used by the mining company (MSX) operating for an open pit mine (of gold and silver). The author stresses the importance not only of information about actions' externalities and future cost, but also of formulation and implementation of integrated policies to minimize social and environmental impacts.

Moraes (2006) addresses the territorial dynamics, namely shrinkage, in Latin American cities. The author argues that income inequality, poverty increase and the exclusion process of the Latin-American urbanization are key points for the understanding of the population mobility that leads to the abandonment of significant areas in the metropolis and in medium size cities. Moraes focuses on Brazil, where the approval of the law known as *Statute of the City* in 2001

offered, according to the author, opportunities for public administrators to implement plans for a re-democratization of urban land use and possibilities for reversing the degradation and shrinking process of old industrial areas. That opportunity has been lost due to three factors identified by Moraes: the urban land oligopoly, the lack of public resources and by the inadequate use of urban policy legal tools expressed in the *Statute*. Urban management tools: sale of building potential, transfer or sale of building rights, public-private partnerships, priority zoning (environmental and social preserves), density zoning, and building enforcement (by progressive taxation).

III.2.2 Strategies

Finance strategy

On the question of managing impacts of shrinkage on local government finance in Germany, Mäding (2004) asks: «What reaction strategies can local government adopt toward demographic change and its fiscal consequences?». First, at the local level, the author recommends that municipalities should stand up powerfully by the goal of a “child (and family) friendly community”; even though it is not their place, or at least not in their hands, to effectively influence natural population change. Second, Mäding believes that a model of a “foreigner-friendly community” should be adopted, in order to prevent intolerance and failure to encourage integration from damaging a place’s image and hamper international immigration, wasting economic opportunities in the long run.

Third, the competition between and within cities and regions will increase even more. Mäding describes how as far as intra-national migration is concerned, direct local government influence tends to be seen in intra-regional residence-oriented migration rather than in inter-regional, economically oriented migration. Every municipality (more or less) pursues a local economic (development) policy in the hope of enhancing its attractiveness for industry and indirectly as a location offering job opportunities; every municipality (more or less) also pursues a local quality-of-life (promotion) policy to increase resident satisfaction, minimize out-migration, and enhance its attractiveness for potential in-migrants.

The author finds it is understandable that municipalities want to win this competition by spending more: (i) on developing and designating more land for residential use; (ii) by supporting home ownership; (iii) by revitalizing neighborhoods; (iv) by providing attractive infrastructures and green spaces; (v) by staging major events in the sports, business or culture. Finally, it is crucial for decision-makers to adopt an integrated policy, setting realistic spending priorities and not losing sight of the demographically determined fiscal risks. This strategy has a reactive character, seeking influence population change in order to solve

financial predicaments in shrinking cities. Rybczynski and Linneman (1999) suggest alternative measures (see section III.2.4).

Vacant property strategy

In what concerns German land law, Jessen (2006) believes it needs to be adapted to the requirements of urban renewal because there is a lack of legal options for activating real property. The availability of support cannot oblige proprietors either to invest themselves or to sell their devalued properties at a price close to the actual fair market value, which can considerably hamper the progress of regeneration. Kildee and Gillotti (2007) present the Genesee County²⁸ Land Bank (Michigan), as a leading example of the role land banks can play in preventing tax foreclosure and finding the opportunities in reusing tax reverted property; an idea that is widely used in smart growth approaches.

Schilling (2007) contends that shrinking cities must first focus their resources and programs to contain the spread of blight and then acquire, clean, and reuse these vacant properties through a centralized land banking²⁹ program and green infrastructure initiative. Both could act as core strategies for right-sizing cities. Schilling (2008) presents the four fundamental vacant property strategies recommended in the Blueprint Buffalo³⁰: (1) develop a regional real property information system; (2) institute a comprehensive code enforcement approach; (3) establish a multi-purpose land bank authority or program and green infrastructure initiative to right-size the city's most distressed neighborhoods; (4) create a holistic policy framework for the redevelopment of greyfields and brownfields throughout the region.

For the specific vacant property strategies and tools set forth, there are four leadership actions which provide them support: (1) launch a citywide vacant properties initiative led by the Mayor and his Offices of Strategic Planning and Economic Development; (2) develop a first-tier suburban vacant property agenda, spearheaded by local elected officials and civic/business leaders from first-tier suburban communities; (3) create a regional Vacant Properties Coordinating Council as a vehicle for ongoing communication and information sharing among city, county and suburban jurisdictions and to develop institutional capacities and partnerships; (4) establish a Vacant Property Living Laboratory through a series of

²⁸ Genesee County is a county in the US state of Michigan. In the US, a county is a local level of government below the state (or federal territory). Counties are used in 48 of the 50 states. Alaska and Louisiana call their county-type governments boroughs and parishes, correspondingly.

²⁹ A land bank is a public authority created to hold, manage and develop tax-foreclosed property for productive use, in the future. Commonly, land banks are funded by local administration's budgets or the management and disposition of tax-foreclosed property.

³⁰ Buffalo is a city in the US state of New York. It is the principal city of the Buffalo-Niagara Falls metropolitan area and the seat of Erie County.

innovative policy initiatives, done in partnership with relevant federal and state agencies and the regional vacant properties coordinating council.

The Living Laboratory would incubate policy innovation and pilot projects that create new models of urban regeneration: coordination and integration of economic development and community revitalization resources; performance-based regulatory standards; revitalization authorities; right-sizing through green infrastructure; green business attraction strategy, etc. The Living Lab should offer, in Schilling's opinion, a wide range of avenues for building civic and neighborhood organizations, engaging residents, and motivating new leaders, such as: (1) Living Laboratory Study Circles and Charrettes: which focus not only on the physical redesign but also the redesign of policy and regulatory structures; (2) Circle of Elders (retired public and private sector officials); (3) Circle of Young Leaders (young professional, entrepreneurs, and nonprofit leaders); (4) Living Laboratory Fellows (international teams of professors and graduate students); (5) Living Laboratory Educational Consortium.

Schilling believes that other shrinking cities, beyond Buffalo and Erie County, could benefit from the Living Lab policy framework. Despite the fact pointed out by the author that communities have innovative programs and projects – Youngstown's smart decline comprehensive plan, Genesee County's land bank authority and Philadelphia's urban greening initiatives – no American city has yet to organize these individual reclamation programs into a cohesive and comprehensive right-sizing initiative. The author states that a national organization, such as the National Vacant Properties Campaign, could perhaps facilitate and manage such a network of Living Labs to share model practices and collaboratively problem solve.

De-suburbanization and social capitalization strategy

Hayashi and Sugiyama (2003) suggest a planned urban regeneration in Japan, proposing de-suburbanization and social capitalization of land as dual strategies to address shrinkage. The goals of this strategy are to create a regional planning and development system which will be continuously improved by the citizens whilst satisfying the need for sustainability. To solve the problem, policies should: (i) induce de-suburbanization so as to create a compact city form; (ii) renovate built-up areas in inner cities so as to provide a better living environment and thus attract people to move from the suburbs.

The idea, already presented in previous research, is to reduce built-up areas in the suburbs and save on infrastructure and maintenance costs, in order to use these savings to subsidize the return of households to the central areas. Hayashi and Sugiyama suggest the following requirements to implement this dual strategies: (i) consensus on future goals for land use

amongst landowners and inhabitants, as well as the public in general; (ii) coordination of building control and taxation; (iii) provision of incentives for social capitalization in the real estate market; (iv) and transfer of development gains to conservation areas.

Kato et al. (2003) define social capitalization as a physical and qualitative stock of buildings, which is considered of social value and can be used by future generations, creating social capital. Its components can be divided into the following three groups: (i) social capital (roads, rivers, parks, etc.); (ii) private buildings; and (iii) urban space formed by (i) and (ii) including open space, landscape and so on. The concept should include two groups of factors: (a) physical factors: endurance and safety against disasters such as earthquakes; (b) social factors: the level of service, harmony with landscape and the environment.

Hayashi (2007) proposes a shift from smart growth to a “smart shrinking strategy”. The smart shrinking strategy’s main concept is this dual strategy of stock formulation in the inner area and retreat of population from the suburbs. Concrete methodologies including substantial reform of zoning, evaluation of social value and social cost of a site, and the introduction of preferential tax, are proposed to give incentives to move back to *good* shrinking urban areas. In the same, but more general way, Lindsey (2007) highlights what she define by “smart decline”: effective strategies for managing decline by exploring methods in shrinking cities.

Attraction-retention strategy

Based on two well-known shrinking cities –Leipzig and Manchester– Mace et al. (2004) argue that there are two keys for the future: (i) becoming magnets for the young; and (ii) keeping the family builders; especially in a future in which one of the challenges for the cities will be competing for people. The authors state the key to both these processes – attraction and retention – is action on a number of fronts: the university base; the physical environment and transports; a conservative strategy in reaction to population decrease. For Leipzig expressly, Mace et al. (2004) recommend an anti-suburbanization development policy, by means of lowering prices for vacant inner-city sites and buildings, creating a family-friendly city, increasing the cost of mobility as an urban policy, and demanding more decision-making power for local authorities.

Mace et al. (2004) believe that cities must consciously develop policies that make themselves attractive to upwardly-mobile young people – both from their immediately surrounding region, and from beyond: the national catchment area – who will become tomorrow’s entrepreneurs and consumers. The main mechanism would be universities. The priority would be to retain graduates by building an economic base that would “allow” them to remain in the city if they wish to do so. This would evolve into a circular and cumulative process: the more

students put down personal and emotional roots, the more would be drawn to remain, providing a potential labor force and a pool of entrepreneurs. Keeping the family builders is considered by the authors equally important but less well understood: to retain these people at the critical point when they form stable partnerships and start to have children or to bring in the family market (Mace et al., 2004; Mace et al., 2007).

However, Mace et al. (2004) state that the same qualities that attract the young graduates may appear negative to couples combining a dual career with a third taxing job of rearing and educating small children. Consequently, the major risk, at this point, is that families decide that they have no alternative except leaving for suburbs or small rural towns. To counter this danger, cities need to pursue conscious policies in urban regeneration; education; transport; and security. To achieve these policy objectives, cities need to acquire and to use the following key policy levers: physical redevelopment powers; flexible housing subsidies; and discretionary spending powers. In a time when cities throughout the world find themselves drawn into a new kind of global competition: to attract people, the authors argue no one kind of place will have a unique advantage, unless cities are smart in developing policies both to attract and to retain the young, the family builders, and the old. In their words, people are the only significant raw material in the knowledge economy.

Regional strategy

According to Pallagst (2007), urban shrinkage is a factor that widely addresses the scale of regions, however planning practice is to a large extent concentrated on either managing urban growth or tackling redevelopment, not in a regional way, but in a fragmented manner. Jessen (2006) also agrees that the mandatory integrated urban development concept should really be expanded into an integrated regional development concept. The argument lies on the fact that only on the regional scale can duplicate investment be prevented in competing for population and jobs, avoiding greater landscape consumption (despite a surplus of buildings and serviced land). In Jessen's words: «This could lower the risk of desperate action by local authorities in the form of dubious beacon projects, make more efficient use of public finance in adapting the technical and social infrastructure (especially the network infrastructure) to changing demand, and regain scope for local government action beyond mandatory functions.»

Troeger-Weiß and Domhardt (2007) also recognize the importance of regional (and national) planning in proposing spatial planning approaches to face the demographic change in rural areas. The authors consider that regional development plans, more than metropolitan, are capable of overcoming local limitations and of supporting inter-municipal co-operation. Again, Strohmeier and Bader (2004) advocate that opportunities can only be exploited if

municipalities collaborate with their regions, if they openly debate the demographic problems in spatial planning and development policy, identify and take account of localized impacts, and find regionally differentiated solutions, by taking advantage of specific resources or through purposive downsizing. In sum, population decline can provide opportunity for a dialogue on coping with demographic change and, ideally, a basis for developing a new fundamental societal consensus for municipalities and regions.

III.2.3 Recommendations

Recommendations for technical infrastructure

According to Koziol (2004), low-cost urban renewal strategies, i.e. economically sustainable urban redevelopment, need to be placed high on the agenda in order to avoid, or at least limit, higher added costs and the resultant deterioration of location conditions in the municipalities. An examination of how urban redevelopment affects the technical infrastructure in Germany provided the author with valuable insights which can be transferred to other aspects of urban renewal. Several recommendations for adapting technical infrastructures in ongoing urban redevelopment are put forward by Koziol:

- Utility sector concerns should be taken into account at an early stage in drawing up and updating municipal redevelopment plans;
- Urban redevelopment planning must be based on serious development prospects and not on best case assumptions;
- Technical infrastructure extensive downsizing should have priority over dispersed downsizing; if possible it should be carried out from the ends of networks (cost-effective adjustment by concentrating points of main effort). Partial demolition should be undertaken only where population density falls by up to 30 per cent;
- Urban development restructuring should use existing networks when possible. Clear decisions about substitute uses of demolition areas should be made at an early stage;
- No extensive demolition should be undertaken on the remaining main network axes where possible;
- In the environs of less utilized sections of networks or in the vicinity of potential demolition areas, no further constructional development should take place outwards;
- Distributed solutions should be envisaged to attain a long-term advantage;
- The adaptability of networks should be taken into account and enhanced in the course of any remedial measures required;
- Planning should take account of developments and demand in the city suburban complex;

- New service lines and facilities should be kept within reasonable dimensions;
- Investment intensity should be optimized in keeping with the urban redevelopment strategy adopted.

However, Koziol recognizes that implementing these recommendations is not always compatible with short-term housing industry and urban development requirements. Thus, it is crucial for sustainable urban development under conditions of shrinkage that strategies and measures are carefully weighed up and processes comprehensively coordinated and mediated.

Recommendations for transportation planning

Ahrens (2005) makes recommendations on how to adjust transportation planning to a situation of urban shrinkage or stagnation. In short-term or mid-term planning, age-specific particularities have to be considered. The needs of the future majority of the population, the elderly, have to be better matched. To be on the safe side, short-term and mid-term planning has to face further growth in automobile traffic; however, the growth rates will break. In the long run, planning will deal with an overall reduced use of transportation infrastructure driven by demographic changes described in. Moreover, financial burdens of fewer taxpayers will increase for infrastructure and social services, and the available budget of private households for mobility will decrease as the costs for transportation increase; this is considered to be an extra factor reducing transportation demand. In this context, the author suggests that the focus should be on low-cost, so-called soft measures, not on costly large scale hard infrastructures.

First, Ahrens argues that the so-called low-cost soft policies are a flexible way to face present and future problems in the transportation sector. The author considers it is important to improve and maintain the existing transportation system and to make it more efficient. Second, some infrastructure measures that were planned on the basis of growth assumptions have to be re-examined and checked whether they really meet the future demand and whether they are still affordable especially with respect to maintenance and operating costs (for instance, through updated cost-benefit analysis). In a more general way, Ahrens advocates that there is a need for new innovative solutions to break causal chains that begin shrinkage. Holz-Rau and Scheiner (2004), cited by Ahrens, suggest three guidelines for an adjusted integrated transportation planning:

1) **Accessibility and safety.** Rising motorization and regional development led in the past to increasingly decentralized spatial structures, resulting in longer distances and higher speeds. However, a socially-oriented society has to increasingly consider the mobility needs of people without a car, such as children, juveniles, handicapped and the poor. In an aging society, high speed becomes a risk factor, scaring elderly people in local traffic and on

freeways, and in turn reducing their mobility. Therefore, mixed land uses where facilities can be reached within walking distance or easily by public transportation should be emphasized.

2) **High quality of existing facilities.** Maintenance, repair and other operating costs for transportation facilities raise from year to year, as population taxpaying potential decreases. Thus, each additional infrastructure investment (e.g. new links and nodes) increases these costs and should be given careful consideration.

3) **Consequences and consistency for sustainable development.** The planning adjustments due to population decrease can meet the requirements of a more sustainable development of our transport systems; providing the opportunities are used consequently by not increasing freeway networks and by reducing the space for urban and regional traffic through the extension of zones with traffic calming.

Recommendations for housing policy

The EUROCITIES (2008) provides a set of recommendations for action for EU policies and to the cities in order to respond to the challenges recognized in a report on demographic change and its impact on housing. The underlying assumption of the recommendations is that demographic change is not a phase that leads to new fixed structures, but an ever-ongoing process. This Network (2008) emphasizes that policies that aim to respond to demographic change are even more challenged by the increasing mobility and fluidity of households; or more generally put, by the flexibility and transience which characterize the evolving structures that lie beneath demographic change.

Recommendations for EU policies

1) To give more attention to population aging and its social consequences in European programs and funding, because: it represents the key European mega-trend, also in the cities, and family ties are becoming weaker and family networks more spatially spread, due to increasing residential mobility and migration.

2) To consider an increased risk of poverty of older people at the local level, in terms of quality of life and appropriate housing, because it is a Europe-wide matter and many cities are overstretched by this new challenge. EU support is vital, in terms of knowledge-exchange on best practices and also of specific funding.

3) To accept urban shrinkage as one development trajectory analogous to growth, because shrinking cities currently need even more attention and support for their specific demands with regard to policies and governance.

4) To rethink urban planning and policies given the population decline in many European cities, and consequences such as vacant housing, an increasing phenomenon in general and an evolving new challenge in suburbia, since building activities depend largely on the interests of private investors and developers.

5) To take an anticipating ('counter-cyclical') approach and tackle issues which are seemingly not yet critical (e.g. aging suburbia), paying attention to the long-term effects and possible future challenges (granted by the increased availability of demographic prognoses) in EU policies. Here, the demographic debate converges with discussions on sustainability.

Recommendations to the cities

In the future, EUROCITIES believes that there needs to be an increased sharing of information in terms of lessons learned – both on good and poor practice examples. This has not been so partly due to demographic processes' complexities, with their interdependencies and changing dynamics, and because demographic change has only recently been given prominence. As concrete measures EUROCITIES recommends: (1) development of local monitoring systems; (2) age mainstreaming (awareness of the needs and circumstances of the elderly); (3) fostering communication between cities and between neighborhoods; (4) building up local knowledge clusters to produce synergies and to keep status track; (5) capitalizing on the resources of publicly-financed scientific institutions; (6) deliberating distinction between population growth and economic development; (7) involving expert groups to give advice, recommendations and develop proposals; and (8) using the political arena to support immigrant communities.

III.2.4 Extreme measures

For Rybczynski and Linneman (1999), a shrinking city cannot simply retract its perimeter because population decrease is not felt homogeneously across all parts of a shrinking city. Rybczynski and Linneman state that the most common political response in the USA has been to counteract the social cost associated with a decreasing (and sometimes increasingly poor) population by raising taxes, which they believe to be a self destructive response. On the contrary, cities need to lower taxes, reduce onerous regulations, increase the levels of public services, and improve local infrastructure.

Rybczynski and Linneman suggest a number of alternative uses for the empty tracts. Empty land could be turned into parks, playgrounds and recreation sites, through a process of rehabilitation, soil replacement, and landscaping. The funding solution to undertake this expensive process would come from private corporations, in return of permission to use the space for the companies' advertisement – somewhat like a corporate sponsorship which could

provide on-going maintenance of the tracts. There could be commercial outdoor recreation possibilities, such as golf courses, environmental zones, and other potential uses of the sort.

Another option put forward by the authors would be to take advantage of the availability of empty land to begin to transform the vertical city into something that more closely resembles the horizontal post-war prototype (see section II.3.2). Down-zoning of residential areas – built at now commercially unacceptable densities – would allow lower densities and thus permit to adjust typologies to current housing demand; always bearing in mind that such densities are only affordable if cities greatly reduce their development costs and regulations. The combination of much lower density housing with easy access to high-density downtown amenities might be the starting point for a new, post-industrial, urban prototype.

The authors mention other solution for shrinking cities: regional government. Whenever metropolitan areas as a whole were expanding, linking shrinking cities to growing suburbs could provide the former with access to the financial resources of the latter³¹. There are, in their perspective, practical difficulties with the regional government proposal. Rybczynski and Linneman argue regional government can be constitutionally difficult. These cities have little to offer to suburban (USA) counties: suburbanites can be expected to oppose and the central cities themselves will resist this solution.

Whereas size may generate some modest economies of scale with respect to infrastructure and finance, it also greatly increases inefficiencies of scale for the delivery of many services. The authors find remote regional governments would be less responsible to the voters, resulting in more corruption and inefficiency. Finally, regional government, while it may solve the problems of servicing poor areas, will not address issues like an old and non-competitive housing stock and the population gaps already prevalent in vertical cities.

The authors believe that shrinking cities should also consider even more drastic alternatives. They propose de-annexation of parts of shrinking cities' territory to private developers. In their opinion, if large tracts were to be sold as de-annexed, unincorporated areas with associated suburban cost structures, perhaps developers would find this an attractive opportunity to create new "suburban" municipalities in the central areas of the city³². New municipalities would be legally independent of the city, preserving a high degree of autonomy and probably a degree of exclusiveness.

³¹ There is evidence that new growing cities in the USA that have annexed suburban counties have many advantages over older cities whose boundaries remained largely unchanged.

³² Prototypes include such communities as River Oaks in Houston and Highland Park and University Park in Dallas. These "suburban" communities have been developed within the fabric of the city boundaries.

First, the sale of the land would generate funds, which would be used to offset years of deferred maintenance of urban infrastructure. The city would also no longer be responsible for the maintenance and security once it becomes a legally independent community. Third, although the city itself would shrink, the city's urban fabric would be enhanced as the new municipality developed; and some of the population gaps in the fabric could be filled in. Therefore, the sale by the city of such property would create a more viable smaller city.

Critical impediments to altering the current state of vacant urban tracts include what Rybczynski and Linneman name as irrational environmental standards which entail that massive tracts in urban areas are forever condemned to be economically undeveloped: soil remains contaminated, the chemicals continue to seep into the groundwater, children continue to play in these abandoned lots, and the urban fabric continues to deteriorate. A compromise solution could involve using federal funds, in the USA context, to clean up these properties. Alternatively, development could be allowed if it notably improved the environmental quality of the property, even though such clean-up might fall short of current standards.

In the authors' view, consolidation and de-annexation are not a "desirable" option for a city; nonetheless, for many shrinking cities, they see no other practicable alternative, particularly when population loss has passed a certain point. In addition, rehabilitation, which has usually worked only in downtown areas, has proved to be only marginally effective where it has succeeded, and is highly dependent on the infusion of federal or state funds (referring specifically to the USA), which are not always available to allocate for this purpose.

Summary of Chapter III

In the end of this chapter, it is important to draw attention to the essential aspects debated. Our intention was not to evaluate planning in conditions of population decrease, since it would be precocious to evaluate results. Instead, our purpose is to be acquainted with the corollary that population decrease may, or may not, have had in urban and regional planning. It should also be reminded that our intent was not to extensively review the approaches, strategies, and recommendations, but instead look at their specific interaction with shrinkage. Although, in overall, the body of knowledge in this research field of planning is still under development, hence fragmented, lacking permanence and thickness, there are renovation mechanisms in progress (Jessen, 2006). Despite the difficulty of the task, there are attempts to identify and describe fields of action composed by a group of urban concepts. With Oswalt (2008), we have seen four synthesis fields, based on a number of concepts.

In a broader way, looking at the approaches, strategies and recommendations, we can distinguish between mainstream planning and planning for shrinkage. While the former is reactive and aspires (re)growth, as a result of negativism against shrinkage, and optimism toward population change; the former is adaptive and accepts shrinkage, having a positive position toward shrinkage, being realistic and pragmatic toward population change. A myriad of strategies and approaches have been applied throughout the world to shrinking territories. Bearing in mind that mainstream planning has been an option in many places, it is complex to differentiate the ones concerning shrinkage. The most common approaches are quite general: culture and creative industries, knowledge, innovation and systems of innovation, information and communications technology, community involvement, environmental sustainability issues, and housing and integrated regeneration.

In the later, we can find the most innovative, or drastic, approaches to population decrease. The remaining approaches lay on the expectation that they will be able to pull the cord that will cause population growth once more. Strategies are diverse: whereas the finance strategy, and attraction-retention strategy are fairly traditional, the vacant property strategy, de-suburbanization and social capitalization strategy, and regional strategy are concerned with the best way to deal with shrinkage, suggesting tools, models and adequate managerial levels. Findings show that recommendations are reasonably sensible, focusing on hard factors such as infrastructure and housing and on soft factors such as population aging (prior to decrease) and its implications for planning. There is not a real shift in the planning paradigm but shrinkage is increasingly becoming a concern, especially when the issue is in one's backyard. Ultimately, rather than the strategy itself, maybe strategic flexibility (Wiechmann, 2007) is more important as regards adaptation to shrinkage, stagnation, or any other change.

CHAPTER IV. Shrinkage in Portugal

In Chapter IV, we first examine the general population trends in Portugal from 1864 to 2001. Second, we describe recent trends in Portugal for the period between 1991 and 2007. Third, we present the future forecasts concerning this matter, based on published projections. Fourth, we set out to identify recent patterns of development in Portugal regarding three aspects: demography, labor market and economy. We start at a larger geographical scale – NUTS-2 – and we narrow it down, further and further, to the parish level, whenever statistical data availability allows that to happen. This draws from the necessity to assess and obtain evidence of the true scale of a phenomenon – shrinkage – that in Portugal is frequently depicted as a simple coast-interior divide.

Aware of the complexities intrinsic to the definition of city, we take a step back to look at the city level, still an intermediate scale of analysis which combines urban characteristics with an acceptable level of data support. We look at the Portuguese cities, but also at their close and extended surroundings; not only to their individual population change behavior but also to their combined performance. At last, this leads to a preliminary typology of shrinking cities by population size and by geographic incidence of population change. Finally, this paves the way to a first group of conclusions on the subjects of population decrease and shrinkage in Portugal, stemmed by the analysis.

IV.1 Methods and materials

IV.1.1 Goals and questions to be answered

The rationale for the empirical analysis is to provide original evidence from Portugal relating the recent patterns of shrinkage, specifically focusing on evidence regarding city shrinkage, its characteristics and/or consequences (and less on the causes for city shrinkage; Chapter I). The most important goals of this part of the empirical analysis are: 1) to identify the recent patterns of shrinkage in Portugal at a macro level; more specifically 2) to describe the recent patterns of development of Portuguese cities; 3) to determine whether shrinking cities are in fact a reality in Portugal; and 4) to compare later on, in the final discussion of Chapter VI, the results of this analysis with similar analyses done by other authors in different countries.

Beginning to approach the goals expressed above means that a number of steps have to be taken to illustrate the broader context in which city shrinkage did or did not take place. Accordingly, we look at national general and recent population trends as well as future population forecasts, followed by a brief macro scale analysis at different levels concerning demography, economy and labor market. The spatial focal points of the micro scale analysis are city, municipality and extended region, i.e. the total area comprised by the municipality and the first ring of neighboring municipalities.

IV.1.2 Data acquisition

Pursuing the goals stated above involves the acquirement of a broad and diverse set of data. The main source of statistical information used in this empirical research is the *Instituto Nacional de Estatística* (INE – Statistics Portugal). We examine variables and indicators over a ten to twenty year period at different geographical levels. The geographical levels examined are parish (*freguesia*), municipality (*concelho*), NUTS³³-3 (groups of municipalities), NUTS-2 (plan-regions) and “statistical cities” (see next subsection for operational definition), depending on data availability and on the nature of the variables/indicators. When considered relevant, parishes are differentiated by means of INE’s urban area typology (predominantly urban area; averagely urban area; and predominantly rural area; also see next subsection).

Population is used as the main indicator of development (Turok and Mykhnenko, 2007; see subsection II.2.1, p. 18), with a focus on shrinkage, but other variables/indicators are used in order to enhance the empirical analysis. In effect, Franz (2004) finds that in studying the effects of shrinkage, a bundle of complex interactions between economic and demographic factors have still to be unfolded (see subsection II.2.3). According to Franz, this is rendered

³³ Nomenclature of Territorial Units for Statistics.

more difficult by the circumstance that important indicators of economic growth are influenced by changes in economic performance and in population and employment figures. Notwithstanding, to make up for the fact that population does not give a complete picture of urban change, in this case shrinkage, other labor market and economic variables/indicators are analyzed (for details see Table 6).

The reference years and time intervals examined are determined by data availability. The majority of the population and labor market data is derived from the Censuses and regular estimates released by Statistics Portugal. The last Census is not as recent as it would be desirable for an entirely updated research. The most recently published Census dates from 2001, and the next Census moment will only take place in 2011, too late for this research. There are estimates from INE for the period 2002-2008, but geographical coverage is limited down to the municipal geographical level. Economic data periodicity is not a problem; it can be obtained through the National and Regional Accounts, nonetheless data disaggregation is merely feasible for NUTS-3 regions.

A number of parishes' administrative boundaries changed and/or were amalgamated over the last thirty years, making it more difficult to achieve a long-term perspective of population change. Those differences are mostly found between the *Census 1981* and the *Census 1991*, because INE has made its own revision for the parishes which changed between 1991 and 2001. Consequently, it was necessary to make several adjustments in order to compare data from 1981 and 1991 at the parish level. The rule of proportionality was applied to the parish area before and after disunion/amalgamation. Nevertheless, there were cases where neither INE nor STAPE³⁴ had information relating the area before and/or after changes occurred.

Table 6. Matrix of variables/indicators obtained and analyzed for each territorial unit

Variables/indicators ³⁵	Territorial Unit			
	NUTS-2	NUTS-3	Municipality (a)	Parish
Population				
Resident population; 1981 (nr.)	✓	✓	✓	✓
Resident population; 1991 (nr.)	✓	✓	✓	✓
Resident population; 2001 (nr.)	✓	✓	✓	✓
Resident population; 2008 (nr.)	✓	✓	✓	x

³⁴ *Secretariado Técnico dos Assuntos para o Processo Eleitoral/STAPE* is a department of the Portuguese Ministry of Internal Administration, responsible for electoral management.

³⁵ Variables designation is in accordance with the Statistical Office of the European Communities/Eurostat or in alternative, when unavailable, with the translation made by Statistics Portugal.

Variables/indicators ³⁵	Territorial Unit			
	NUTS-2	NUTS-3	Municipality (a)	Parish
Resident population growth rate; 1981-1991 (%)	✓	✓	✓	✓
Resident population growth rate; 1991-2001 (%)	✓	✓	✓	✓
Resident population growth rate; 2001-2008 (%)	✓	✓	✓	×
Resident population growth rate; 1981-2008 (%)	✓	✓	✓	×
Internal repulsion rate; 2001 (%)	✓	✓	✓	×
Crude rate of natural increase; 1981 to 2008 (%)	✓	✓	✓	×
Crude rate of increase; 1981to 2008 (%)	✓	✓	✓	×
Crude rate of net migration; 1981 to 2008 (%)	✓	✓	✓	×
Aging index; 1981 (nr.)	✓	✓	✓	✓
Aging index; 1991 (nr.)	✓	✓	✓	✓
Aging index; 2001 (nr.)	✓	✓	✓	✓
Aging index; 2008 (nr.)	✓	✓	✓	×
Change in the aging index; 1981-2008	✓	✓	✓	×
Total fertility rate; 1992 (nr.)	✓	✓	✓	×
Total fertility rate; 2008 (nr.)	✓	✓	✓	×
Labor Market				
Activity rate; 1991 (%)	✓	✓	✓	✓
Activity rate; 2001 (%)	✓	✓	✓	✓
Change in the activity rate; 1981-1991 (pp)	✓	✓	✓	×
Change in the activity rate; 1991-2001 (pp)	✓	✓	✓	✓
Unemployment rate; 1991 (%)	✓	✓	✓	✓
Unemployment rate; 2001 (%)	✓	✓	✓	✓
Change in the unemployment rate; 1981-1991 (pp)	✓	✓	✓	×
Change in the unemployment rate; 1991-2001 (pp)	✓	✓	✓	✓
Working age population renewal ratio; 2001 (nr.)	✓	✓	✓	✓
Working age population renewal ratio; 2006 (nr.)	✓	✓	✓	×
Employment's polarization index; 2001 (nr.)	✓	✓	✓	×
Economy				
Gross Domestic Product (GDP) <i>per capita</i> ; 1991 to 2007 (thousands of Euros)	✓	✓	×	×
Productivity; 1991 to 2007 (millions of Euros)	✓	✓	×	×
Gross value added (GVA); 1991 to 2007 (millions of Euros)	✓	✓	×	×

(a) This territorial unit level data is not as relevant when data for lower territorial unit levels is available.

IV.1.3 Operational definitions

It is important to clearly define some of the terminology used in this empirical analysis.

Predominantly urban areas comprise the following situations: (i) urban parishes; (ii) semi-urban parishes, contiguous to urban parishes, included in the urban area according to planning regulations; (iii) semi-urban parishes which constitute alone predominantly urban areas according to planning regulations; (iv) main parishes³⁶ with a resident population higher than 5,000 inhabitants. **Averagely urban areas** comprise the following situations: (i) semi-urban parishes not included in the predominantly urban areas; (ii) main parishes not included in the predominantly urban areas (with resident population lower than 5,000 inhabitants). **Predominantly rural areas** comprise the parishes not included in the predominantly urban areas and in the averagely urban areas.

Statistical cities, henceforth designated only as cities, largely correspond to the adjustment of the urban perimeter, provided in land use plans and regulations, to the statistical subsections used by Statistics Portugal in the Information Reference Geographical Database (BGRI). Whenever the urban perimeter was not defined, INE resorted to spatial classifications: urban or urbanized areas; urbanizable areas; and green spaces, whose proximity and social, recreational and landscape relationship with urban spaces justified its inclusion. When it was not possible to use these spatial classifications, the delimitation was based on the place whose designation in the Census coincided with the delimitation of the cities, altering it (together with the local government) according to the analysis of the territorial dynamics. Industrial areas, harbors, airports or other areas of economic relevance located in the surrounding regions have also been included by Statistics Portugal in the city perimeters, given their strong functional relationships with the city.

When the adjustment to the statistical subsection was not approved by the local government, the solution found by Statistics Portugal was to consider an imaginary perimeter line. The subsection's statistical information was accounted for when the majority of the population resided in the area included in, and sustained by, the imaginary perimeter line.

We consider as **shrinking cities**, the cities whose resident population growth rate is negative, or five points below Portugal's resident population growth rate between 1991 and 2001 – calculated at 5 per cent by Statistics Portugal. We regard as **fast growing cities**, the cities whose resident population growth rate is at least five points higher than Portugal's resident population growth rate between 1991 and 2001.

³⁶ Translation for *freguesia sede de concelho*.

IV.2 Geography of population decline in Portugal

IV.2.1 General population trends in Portugal (1864-2001)

Resident population, hereafter population, in Portugal more than doubled between 1864 and 2001, from 4.3 (1st General Population Census) to 10.4 million individuals (14th Census). The evolution was not constant, including distinct phases of growth as follows in the description bellow. From 1864 to 1911, population grew continuously, at an annual average rate of 0.72 per cent, as a result of strong natural increases. In the beginning of the 20th century, the pace accelerated, but the annual average rate remained moderate (0.88%). The following period, from 1911 to 1920, was characterized by a weak annual growth (0.15%), as a consequence of: the World War I; a flu epidemic, known as pneumonic (in 1918 occurred the only strong negative natural increase up until 2007); and the first Portuguese emigration surge, for the most part to Brazil, of contemporary history.

A period of growth recovery followed, between 1920 and 1960, marked by strong growth between 1920 and 1940, with average rates higher than 1 per cent per year, whose pace softened until reaching the annual rate of 0.44 in the 1950s. Thus, 1940 constituted the turning point in population growth ascending trend. Portugal did not register a baby boom after World War II perhaps because the country did not take part in this war. The growth slowdown trend culminated in population decrease between 1960 and 1970. During the great cycle of the Portuguese emigration to Europe, the negative net migration more than doubled in relation to the previous decade and the TFR started to diminish (Carrilho e Patrício, 2002).

The period from 1970 to 1981 registered high annual average growth rates (1.3%). It was a strongly diversified period marked: by a migratory exodus, mainly clandestine, which coincided with the colonial war, up to 1973; and by a demographic explosion, in 1974 and 1975, associated to the decolonization process, which resulted in a massive return movement of the Portuguese from the former colonies. In 1976 began a steady demographic growth, during which the decline of the natural increase, as a consequence of the fertility fall, was compensated by the reduction of the emigration figures and by the acceleration of the return movement of Portuguese emigrants, mostly from countries like France and Germany.

From 1981 to 1991, the absolute values of population stabilized, in consequence of a feeble natural increase and of the resurgence of a negative net migration, less intense than before. It was at the beginning of this period that the fertility diminished to levels below those needed to guarantee generation replacement. According to the results of the *Census 2001*, and if existing projections are correct, current population slightly exceeds 10 million inhabitants. A

small increase in births and a strong increment in immigration, accompanied by the decline of the emigration outbreaks in the second half of the 1990s and at the beginning of 2000, explain the substantial increase in population between 1991 and 2001, in relation to the natural increase. In 2001, women in Portugal had, on average, about two children less than in the 1960s (Carrilho and Patrício, 2002).

IV.2.2 Recent population trends in Portugal (1991-2007)

Since 1992, there has been continuous population growth in Portugal, which accelerated from the end of the 1990s onward, culminating in 2002 in the highest value ever known, to become slower again in 2003 (Carrilho and Patrício, 2003). This positive evolution resulted from the entrance flows of immigrants with foreign nationality and of “returned” Portuguese citizens (from the former African colonies). The relative importance of the natural increase in population growth has weakened, while the migratory component strengthened its position, explaining four fifths of population change.

Presently, there is additional evidence concerning the population change observed since the end of the 20th century. The dynamics of population growth in Portugal in the period 2000-2005 were characterized by the strong reduction of natural increase, that became practically null, motivated by the fall in births and the important addition in mortality, particularly in 2005 (but the worse was still to come). In 2007, Portugal registered a natural increase with negative values, a situation that had only occurred by the end of World War I (1918, as mentioned earlier. At the same time, the strong positive net migration diminished as a consequence of the decline in migratory entrance flows and of the increase in the exit flows (Carrilho and Patrício, 2007).

For more than twenty five years, Portugal has been a low fertility country, with a TFR lower than required to secure the replacement of current generations. Only two other Southern European countries, Spain and Greece, have a lower TFR (Carrilho and Patrício, 2007). Life expectancy continued to increase in the period 1991-2007, especially between men, diminishing the difference in the average life expectancy between genders. However, the indicator is not as favorable to men as for women in the European Union context. These dynamics contributed to a severe population aging, with major socio-economic implications.

Since the year 2000, the ratio of aged people exceeds the ratio of young population. Decline in infant and adult mortality, women’s deep autonomy, difficulties in conciliating family, professional and personal life, more accessibility to safe contraceptive methods and job precariousness are factors that weigh in the decision to have children, and in its time lag. The delayed entry in the labor market, due to longer education, implying the dependency of the

younger generations, is an equally decisive factor in this matter. On the other hand, the implementation of the social security system gave more independence to aged people, and the retirement pension's schemes have separated the function of procreation from guaranteeing support for parents in the old age.

In Portugal, less children are born, children of immigrants gain influence in the annual number of births, the only child option is the most popular, the proportion of births with cohabitation of the parents increased, parents are older, choose *de facto* union as a conjugality form and get divorced more frequently. Regarding the fertility patterns, maternity after thirty is more frequent, and maternity in adolescence remains high although substantially and increasingly reduced (Carrilho and Patrício, 2004). All of the former confirm the recent alterations in the household models in Portugal.

Portugal only rather recently became an immigration country, with diversified origin countries, but remains an emigration country, although mostly of temporary nature. The strong immigration flows registered in recent years allowed the Portuguese population to go over the 10 million inhabitants' barrier. The course that migratory flows assume in the future will determine the positive or negative variation of the population and the greater or minor degree of population aging; therefore maintenance of fertility levels below generation replacement seems irreversible in the near future, especially in an economic crisis context.

The phenomenon of demographic aging is a consequence of the demographic transition; that is to say of the shift from a demographic model of high mortality and birth rates, to a model where both phenomena assume low levels. This situation narrows the bottom and widens the top of the age pyramid, transforming it into a tree. As stated earlier, the proportion of elderly exceeds that of the youngsters, since the beginning of this century. Given that the immigrants' age structure is generally younger than the host population's structure, immigration can attenuate aging. However, it is known that its effect on the population age composition is more modest than the impact of fertility reduction. Therefore the immigrants tend to steadily take on the patterns of fertility and mortality of the host societies, and they age themselves.

In sum, demographic aging emerges, at least in the short and medium-term, as an irremediable phenomenon in Portugal and, for this reason, remains as one of the greatest challenges that the Portuguese society faces (Carrilho and Patrício, 2008a, 2008b). As we will see in the next subsection, recent projections point to the reduction of the population and the progression of the phenomenon of aging, even if fertility levels increase and net migration continues positive.

IV.2.3 Future population forecasts in Portugal (2008-2060)

Statistics Portugal produced projections for 2060 using the cohort component method, a method widely used for producing population projections at the national level, allowing the elaboration of diverse demographic scenarios, based on alternative assumptions for the evolution of fertility, mortality and migration. The launch population used was the estimated population in Portugal on 1 January 2008, circa 10.6 million individuals. The results are presented according to four scenarios: the central scenario, which combines a set of assumptions considered as the most plausible in view of recent demographic developments, the low scenario, the high scenario and the no migration scenario (adopted only for comparative purposes) (INE 2009a, Table 7).

Table 7. Conjunction of hypotheses in different scenarios

scenarios/hypotheses	Total fertility rate	Average life expectancy at birth	Net migration
Low scenario	pessimist	moderate	reduced
Central scenario	moderate	moderate	moderate
High scenario	optimist	optimist	high
No migrations scenario	moderate	moderate	no migrations

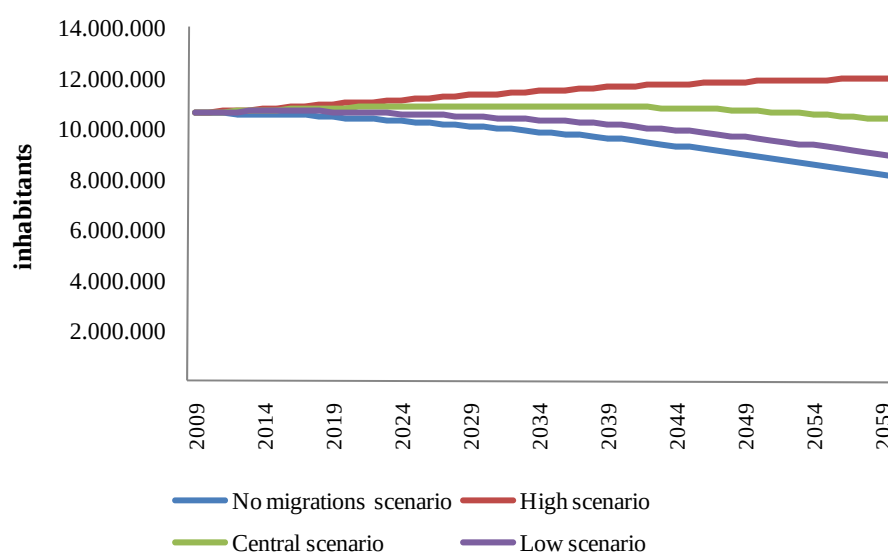
Source: Statistics Portugal. *Projeções de População Residente em Portugal 2008-2060*.

According to the central scenario, population in Portugal will continue to grow slowly until 2034, reaching 10.9 million, and will start to decrease in 2053 reaching values below launch in 2060 – a total population of 10.4 million. For this evolution, contributes not only the direct effect of annual net migration, but also the effect it has on the components of mortality and fertility in particular, given the age selectivity associated with migratory flows (Figure 7). In the high scenario, population in Portugal will continue to increase throughout the projection period, coming to its maximum value in the year 2060 with 12 million individuals, as a result of a greater volume of immigrants per annum, together with a more significant increase of the fertility levels than those considered in the central scenario. In contrast, in the low scenario, the results indicate a population decrease, which may start in 2016, reaching values below launch population in 2023, until 2060 when population would fall to 8.9. There is also a combination of direct and indirect effects of the considered annual net migration, jointly with less favorable fertility levels than those considered in the central scenario.

In the absence of external migration flows and maintaining the central scenario assumptions for fertility and mortality components – no migration scenario – Portugal would lose population throughout the projection period. Population could be reduced to 8.1 million individuals until 2060, representing a decrease of around 25 per cent over the next 50 years. These results demonstrate the effect of migration on the total population volume. In

conclusion, the four scenarios point toward negative natural increases all through the projection period, a trend only softened in the high scenario; as a result of the combination of an increase in the number of deaths and a decrease in the number of live-births. The decrease of the latter is only avoided in the high scenario, although the number of live-births is still insufficient to counterbalance the negative natural increase.

The results regarding the demographic structures confirm that the aging process will continue. This occurs as a consequence of the decreasing proportion of the young population and the increasing proportion of the elderly. An increase of the aging index and a decrease of the potential support ratio³⁷ may be anticipated. The results also highlight a possible decrease in the working age population, particularly at its younger ages, contributing to its aging. Positive net migration will not be enough to compensate the demographic aging, both in the total population or in the working age population. However, the combination of positive net migration and higher fertility levels, as admitted in the high scenario (which also points to a higher life expectancy), contributes to a slower demographic aging. At the same time, it allows some compensation for the low numbers expected in the potential support ratio.



Source: Statistics Portugal. Author's computation.

Figure 7. Projections by scenario in Portugal between 2009 and 2060

³⁷ Potential support ratio is the relationship between working age population and elderly population, usually defined as the ratio between the number of people aged 15 to 64 years and the number of people aged 65 years or more.

IV.2.4 Macro scale analysis

Demography

According to the Demographic Statistics 2008 (INE, 2009b), the main recent demographic trends in Portugal – slow population growth and aging – have remained untouched: the effective growth rate stood at 0.09%, well below the European Union 27 (EU27) average – 0.43%. Population³⁸ is mostly concentrated in the North and Lisbon regions; and more than half is located in the North and Center, which jointly with Lisbon and Tagus Valley, account for 86.5% of total population (Appendix D). Between 1981 and 1991, while the Center and Alentejo regions suffered the biggest population decline; the Algarve, North and Lisbon regions grew (Figure 8) and continued to grow more intensely between 1991 and 2001. The Center region reversed the trend of the past decade. Alentejo, whose population decrease had slowed down in 1991-2001, has since then lost more residents than in the earlier decennium. The other NUTS-2 regions grew in 2008 relatively to 2001 (Statistics Portugal's estimates).

In the overall period 1981-2008 there is a diverse situation at this geographical scale: manifest growth in Algarve, stagnation in the Center, decline in Alentejo, (above) average growth in Lisbon and in the North regions. Looking at the NUTS-3 region, the positive influence of the metropolitan areas and the coast versus the negative influence of the interior is underlined (e.g. Península de Setúbal and Algarve versus Pinhal Interior Sul; Figures 9, 10 and 11). At the parish level, population generally decreased, although less in coastal areas. Examining the NUTS-2 level in 2001, the internal repulsion rate³⁹ was the highest in Lisbon (2.9%) and Alentejo (2.6%), whereas the lowest was found in the North (0.8%); all below the national (Mainland Portugal) average – 6.7%. The previous trend is confirmed in the NUTS-3 regions and in the municipal levels: once more, the highest repulsion rate can be found in the municipalities of Alentejo Litoral, Baixo Alentejo and especially in parts of Greater Lisbon and Greater Oporto (e.g. municipality of Oporto).

In Portugal, the latest 2008 population growth rate slowdown has been led by a drop in net migration⁴⁰, together with a low natural increase⁴¹ (very close to zero; Figure 13).

³⁸ Resident population is the people who regardless of being present or absent in a given housing unit at the moment of observation – 0:00 a.m. of the reference day – live there during most of the year with their family, or have there all or most of their belongings.

³⁹ Internal repulsion rate is the relation between the resident population who five years before resided in the territorial unit and no longer resides there and the territorial unit's resident population, expressed in percentage.

⁴⁰ Crude rate of net migration is the ratio of the net migration during the year to the average population in that year. The value is expressed per 1000 inhabitants.

⁴¹ Crude rate of natural increase is the difference between the number of live births and the number of deaths occurring during a given period, usually a calendar year divided by the mid-year population of that period* (usually expressed per 100 (10^2) or 1000 (10^3) inhabitants).

Considering 1981-2008, the natural increase has been constantly and evenly declining in the North (although with values still above Mainland average), Center and Alentejo (with ups and downs) and in their respective NUTS-3 regions, with few exceptions (Figures 14, 15, 16 and 17). In the Algarve, natural increase has been faintly recuperating (Figure 18). In general, there was an inversion of the recent positive crude rate of net migration (CRNM) from 2001 onwards (Figures 19, 20, 21, 22 and 23). All Northern sub-regions behaved worse than Mainland average, except for Ave and Cávado. The crude rates in Lisbon replicate the Mainland average trend line, especially Península de Setúbal.

Population has been constantly aging, as a result of the drop in fertility and higher longevity. Low fertility is responsible for aging at the base of the age pyramid, with the TFR⁴² standing at 1.37 children per woman in 2008. There has been also an increase in longevity, which has contributed to aging at the top of the pyramid. In 2008, the aging index⁴³ reached 115. The aging index constantly increased in all the NUTS-2 regions between 1981 and 2008, with the exceptions of the Alentejo and the Algarve. Alentejo has the highest aging index in the Mainland, whilst the North has the smallest aging index, but the trend is picking up. The greatest change happened in Alentejo and the most tenuous can be found in Algarve. Looking at data from a NUTS-3 (Figures 24, 25 and 26) or a parish scale perspective, we can conclude that the aging index has generally increased, more in the interior than in the coast, in a divide very similar to the population change partition. The lowest total fertility rate can be found in the North and in the Center, approximately 1.2. In 2008, the region with the highest TFR was the Algarve (1.8) that jointly with Lisbon are the sole regions with a TFR above the average. In the North, the reduction was around 25% in 1991-2008, and even more intense in 2001-2009 (16%), whereas Lisbon (8.3%) and Algarve (2.3%) are the only regions with a growing TFR. In sum, at the regional and sub-regional level, it is visible again a division between the coastal areas and the interior areas (Appendix D).

⁴² Total fertility rate is the mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year. It is therefore the completed fertility of a hypothetical generation, computed by adding the fertility rates by age for women in a given year (the number of women at each age is assumed to be the same). The total fertility rate is also used to indicate the replacement level fertility; in more developed countries, a rate of 2.1 is considered to be replacement level.

⁴³ Aging index is the ratio of the number of elderly persons of an age when they are generally economically inactive (aged 65 and over) to the number of young persons (from 0 to 14).

Labor market and economy

Regarding the activity rate⁴⁴ and the unemployment rate⁴⁵, in 1991 and 2001, Alentejo stands out for the wrong reasons, while Algarve and Lisbon are noticeable for good reasons concerning the former and the later respectively. Generally speaking, the activity rate grew in all Mainland NUTS-2 and NUTS-3 regions, but also did the unemployment rate in all NUTS-3 regions, except for the Algarve region. The analysis of the NUTS-3 regions and parishes emphasizes yet again the greater resilience of the metropolitan areas, and of their close surroundings, as well as of the coastal areas. The working age population renewal (WAPR) ratio⁴⁶ in Mainland Portugal decreased from 141.3, in 2001, to 118.6, in 2006. In the two reference years, the NUTS-2 region with the highest WAPR ratio was the North region. Despite having the smallest WAPR ratio in 2001, Alentejo was not the most affected in 2006. On the contrary, regions like Lisbon (102.8) and Algarve (109.9) were the most affected generally decreasing from North to South. Similarly to the unemployment rate, the most thriving regions suffered the most considerable losses and not the other way around. The NUTS-3 regions and municipalities analysis proved these trends; actually Matosinhos and Oporto are some of the worse in the North region, and Greater Lisbon also declines. Not surprisingly, the highest employment's polarization index in 2001⁴⁷ belongs to the regions of Lisbon and Algarve (1.0), slightly above the Mainland average and the other NUTS-2 regions (0.9). At the NUTS-3 level, Greater Lisbon also has the maximum employment's polarization index (1.1), in opposition to Península de Setúbal which has the minimum (0.7).

In the period between 1995 and 2007, the country's annual real growth of Gross Domestic Product (GDP) stood at 2.1%, in average, which in the Mainland was not exceeded solely by the North (1.6%) and Alentejo (1.8%) regions. In 2007, Greater Lisbon presented the highest GDP *per capita*, amongst the Portuguese NUTS-3 regions, closely followed by Alentejo Litoral. It is possible to observe a division between the North and the Interior of the Center region, with lower values, and the coastal NUTS-3 regions of the Center and South of the country, that exceeded national average. The analysis of the new series (1995 – 2007) of the Regional Accounts shows a slight increase in regional disparities. Statistics Portugal (2009c) advocates that these regional disparities suggest differentiated productive profiles,

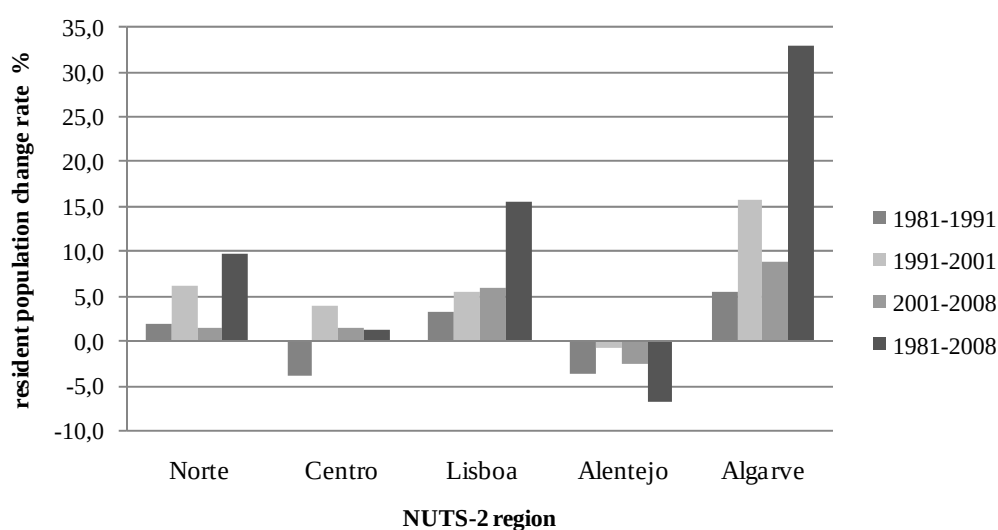
⁴⁴ The activity rate is the ratio of the labour force to the working age population, expressed in percentages.

⁴⁵ The unemployment rate represents unemployed persons as a percentage of the civilian labour force.

⁴⁶ Working age population renewal ratio is the ratio between the population that is potentially entering and that which is leaving the labour market, normally defined as the quotient between the number of people aged between 20 and 29 years and the number of people aged between 55 and 64.

⁴⁷ Employment's polarisation index is the ratio between a region's labor force and the labour force which resides in the same region.

technological levels and innovation processes. In 2007, the higher productivities (measured by VAB generated by each individual employee) were located mostly in the South, linked to the tertiary sector (Greater Lisbon, Algarve, but also Greater Oporto). Studies by INE (2009c) assert it was possible to identify cases of high productivity associated with the performance of the secondary sector, namely: Alentejo Litoral, Baixo Alentejo and Península de Setúbal. More than two thirds of the NUTS-3 regions had levels of productivity below the national average (27.3 thousand Euros). A large majority of these sub-regions had, in turn, VAB proportions in the tertiary sector below the national average (73%), which can be associated with productive specializations in lower productivity services (INE, 2009c). In conclusion, INE finds a duality between, on the one hand, the Coastline and the South and, on the other hand, the North and Interior Center with smaller values of productivity⁴⁸.



Source: Statistics Portugal. Author's calculations.

Figure 8. Resident population change rate by NUTS-2

⁴⁸ A shift-share analysis for the Metropolitan Areas of Lisbon and Oporto can be found in Appendix A.

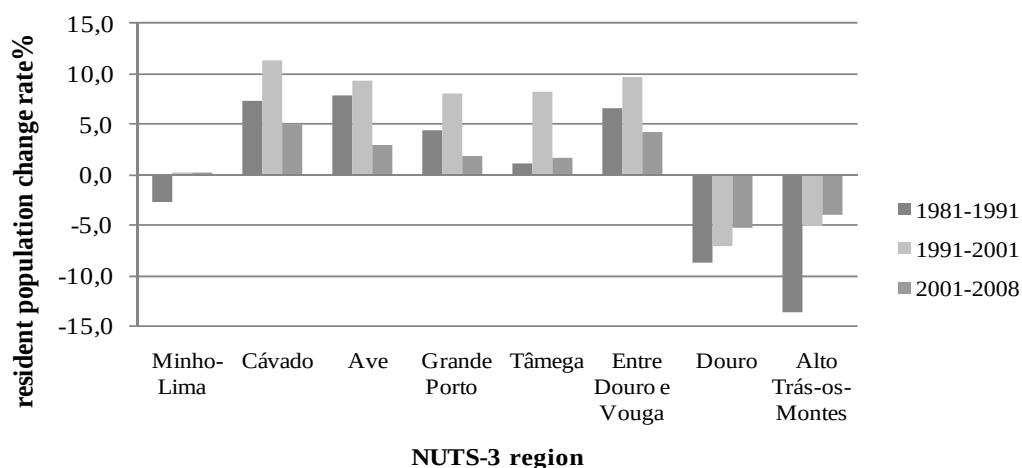


Figure 9. Resident population change rate by NUTS-3 – North region

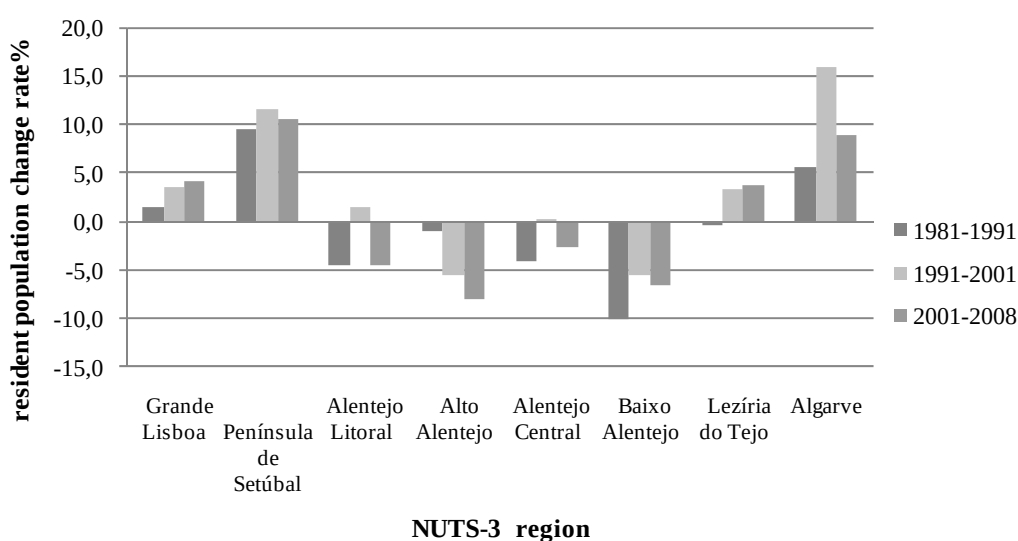
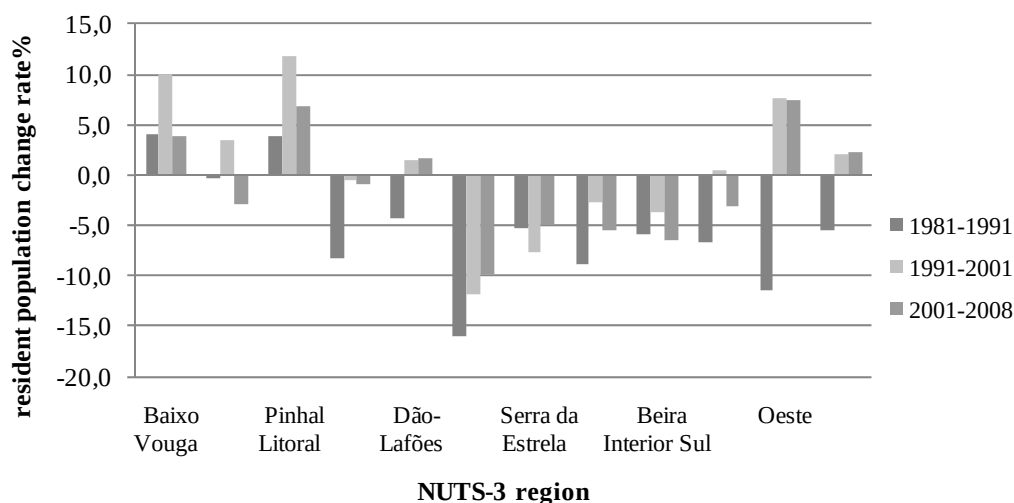
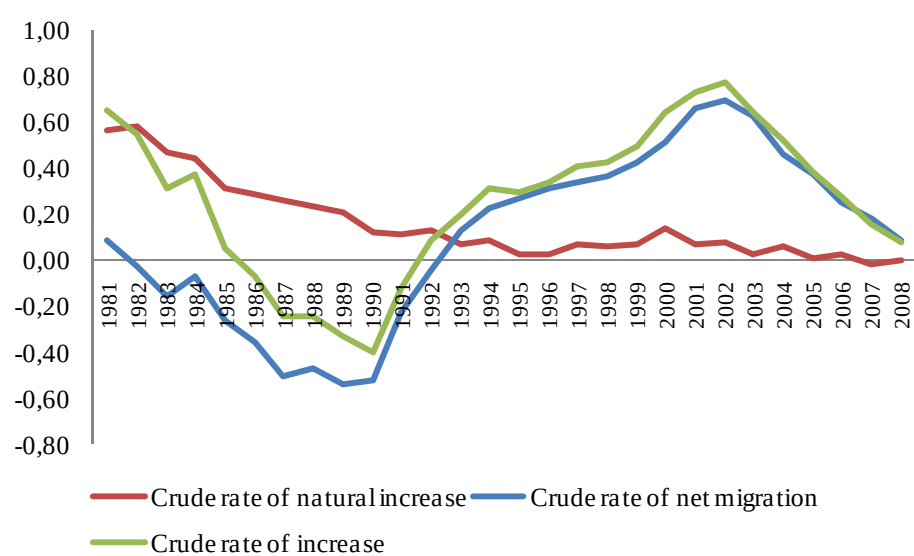


Figure 10. Resident population change rate by NUTS-3 – Lisbon, Alentejo and Algarve regions



Source: Statistics Portugal. Author's calculations.

Figure 11. Resident population change rate by NUTS-3 – Center region



Source: Statistics Portugal. Author's computation.

Figure 12. Crude rate of natural increase, crude rate of net migration and crude rate of increase in Mainland Portugal between 1981 and 2008

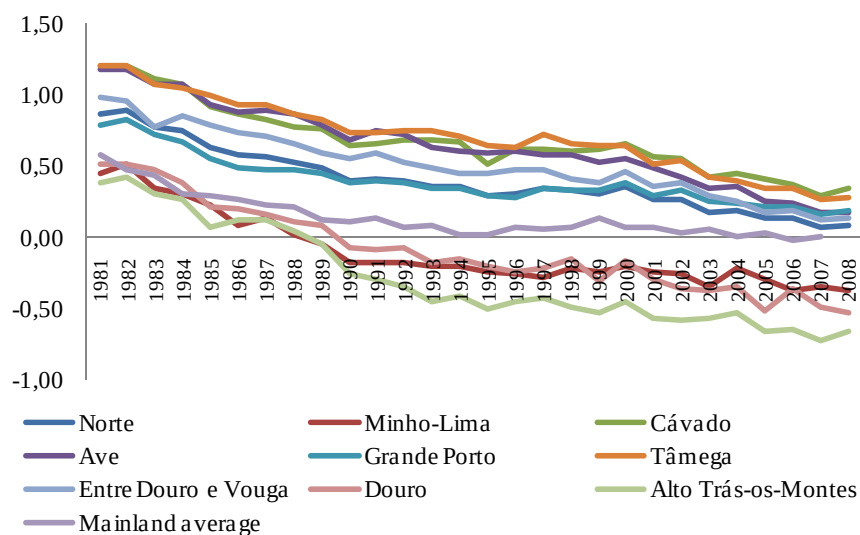


Figure 13. Crude rate of natural increase in the North region between 1981 and 2008

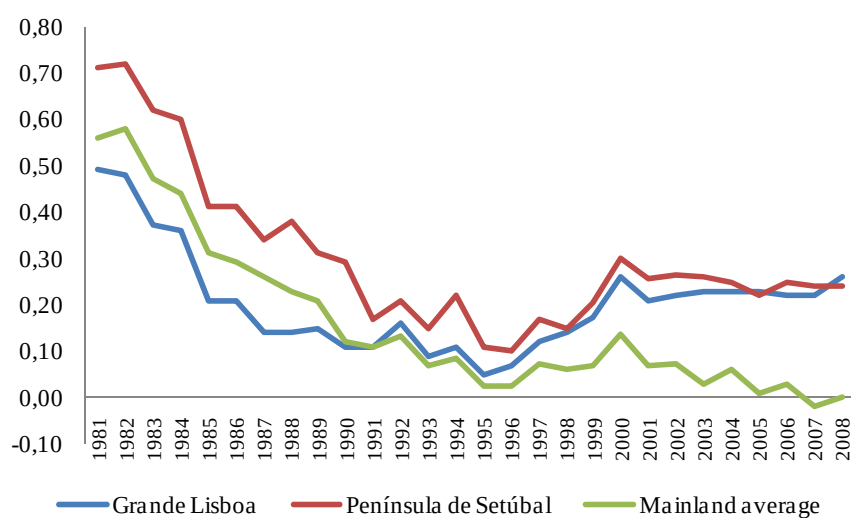
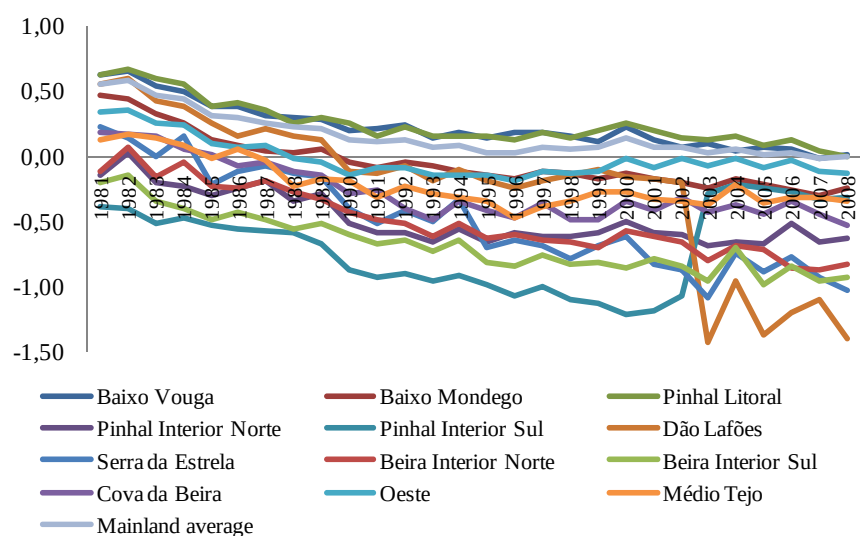


Figure 14. Crude rate of natural increase in the Lisbon region between 1981 and 2008



Source: Statistics Portugal. Author's calculations.

Figure 15. Crude rate of natural increase in the Center region between 1981 and 2008

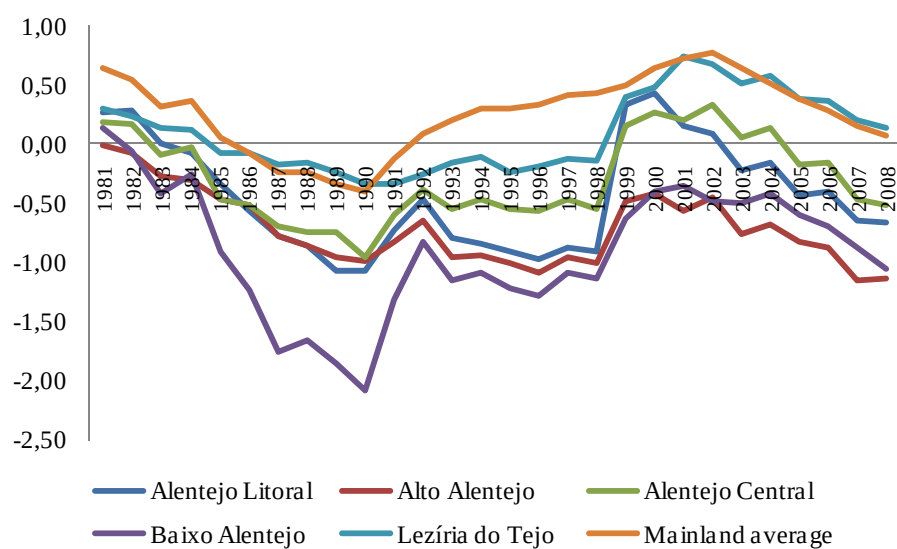
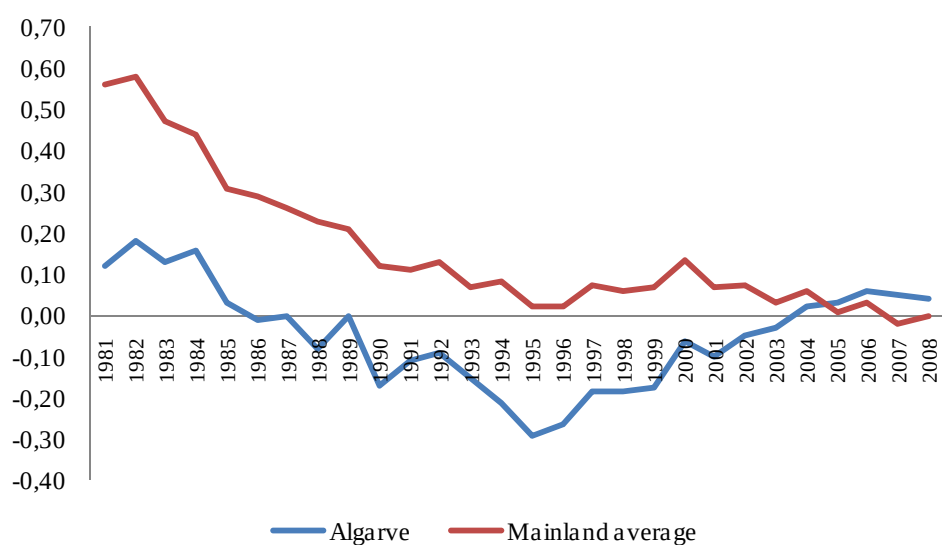


Figure 16. Crude rate of natural increase in the Alentejo region between 1981 and 2008



Source: Statistics Portugal. Author's computation.

Figure 17. Crude rate of natural increase in the Algarve region between 1981 and 2008

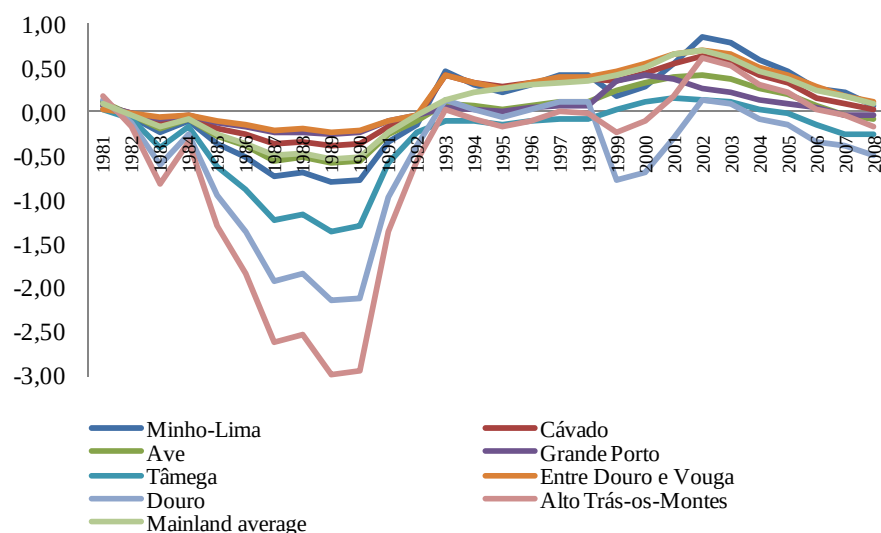


Figure 18. Crude rate of net migration in the North region between 1981 and 2008

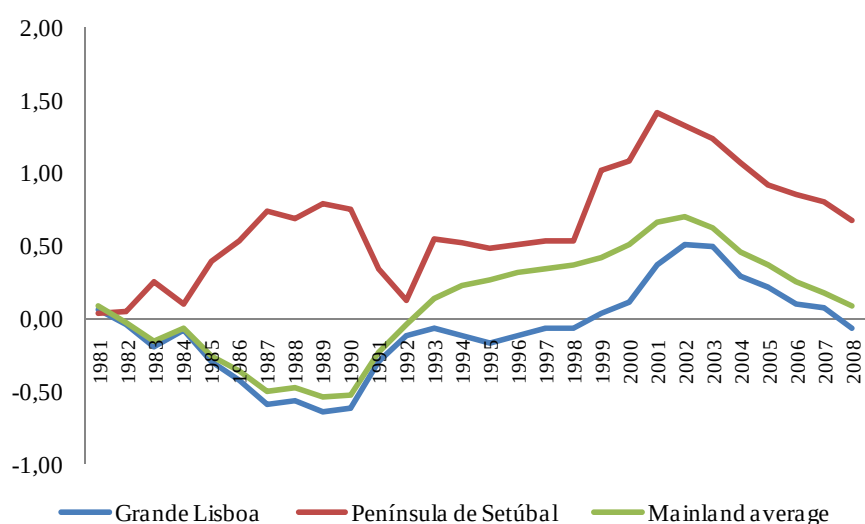
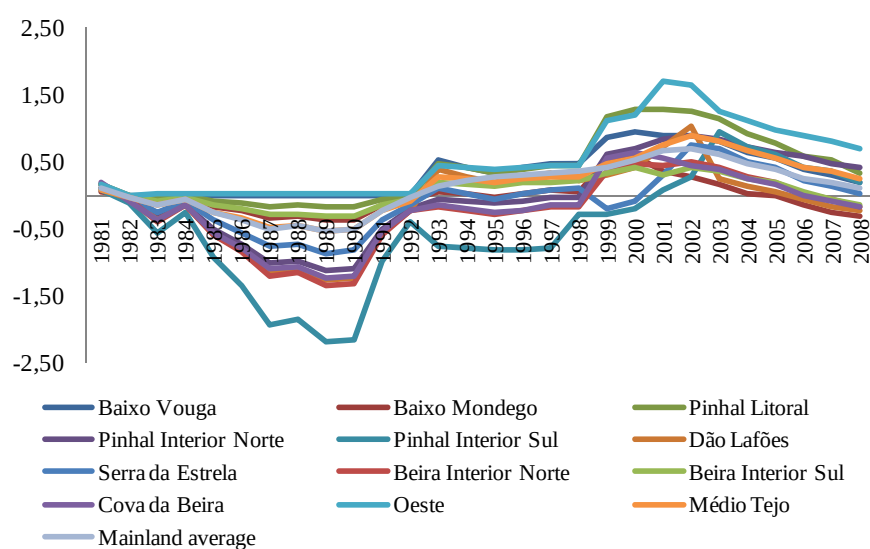


Figure 19. Crude rate of net migration in the Lisbon region between 1981 and 2008



Source: Statistics Portugal. Author's calculations.

Figure 20. Crude rate of net migration in the Center region between 1981 and 2008

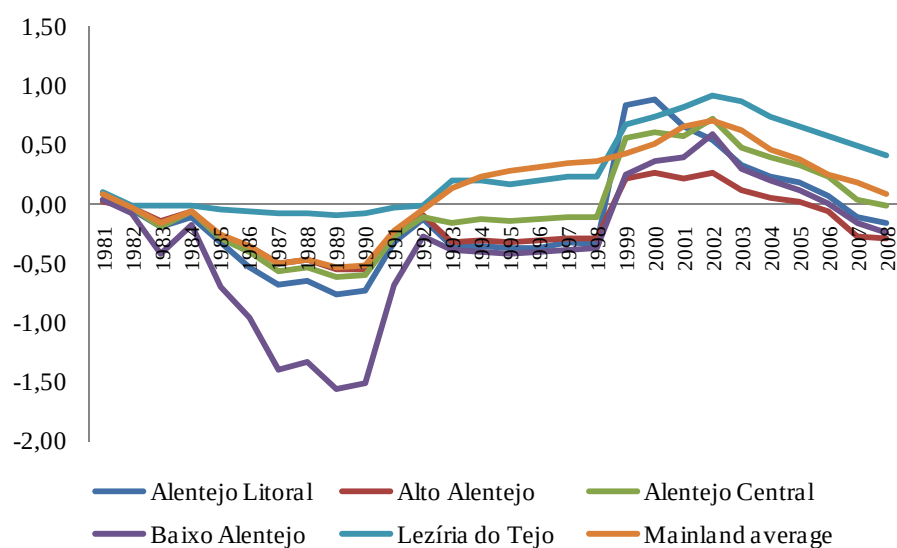
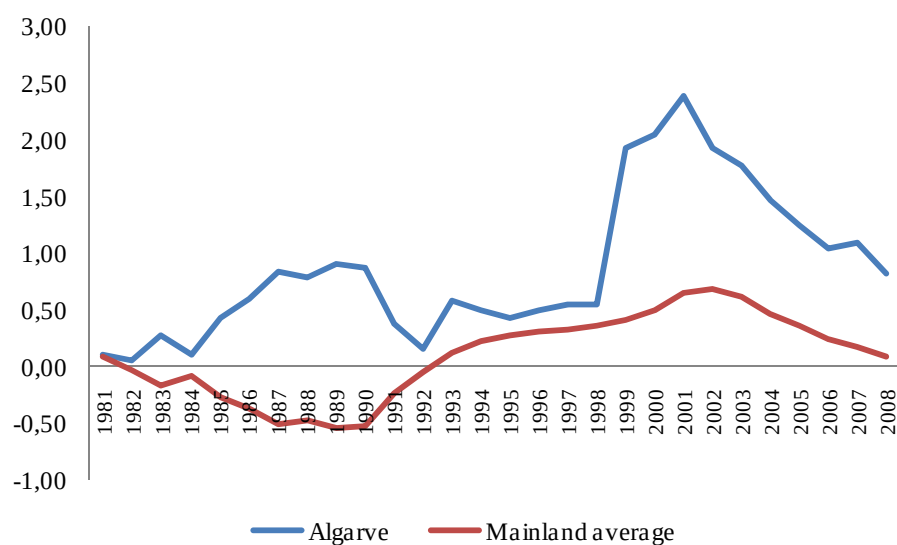


Figure 21. Crude rate of net migration in the Alentejo region between 1981 and 2008



Source: Statistics Portugal. Author's computation.

Figure 22. Crude rate of net migration in the Algarve region between 1981 and 2008

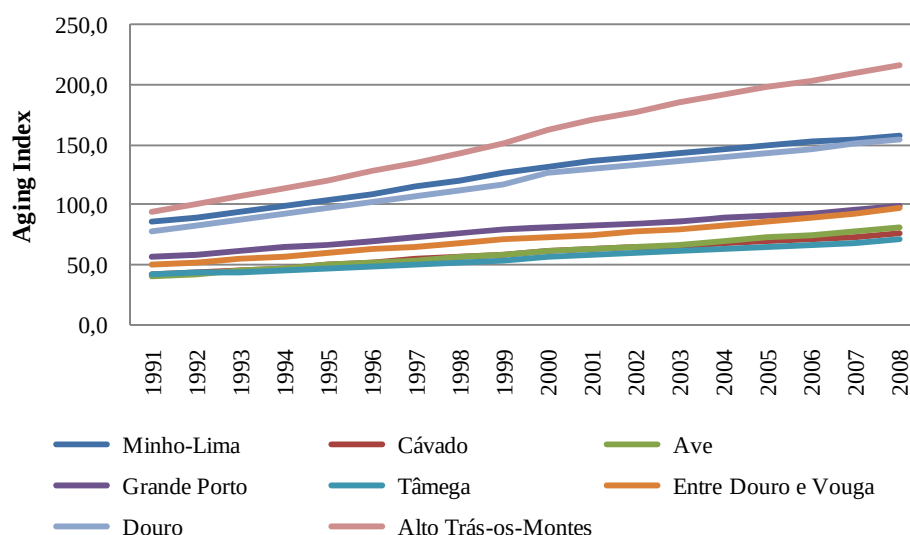


Figure 23. Aging index by NUTS-3 – North region

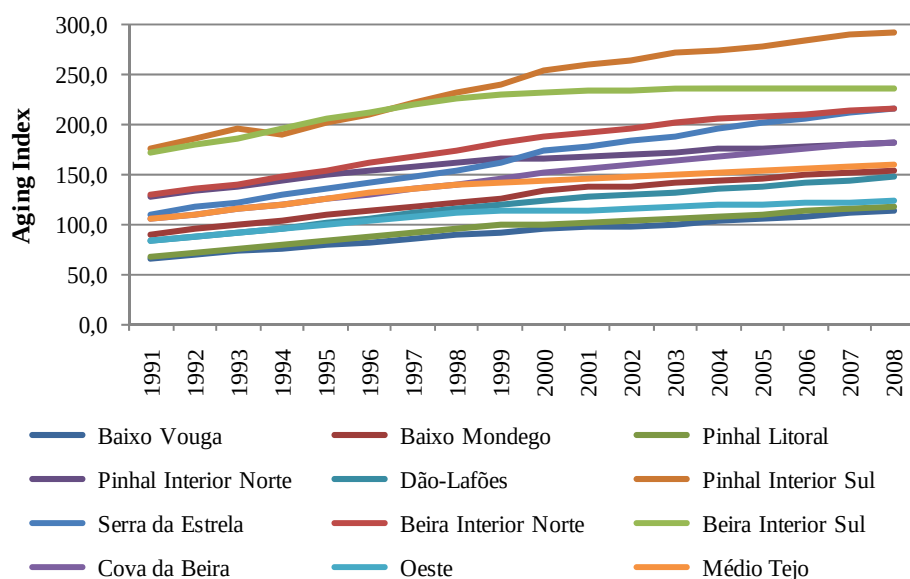
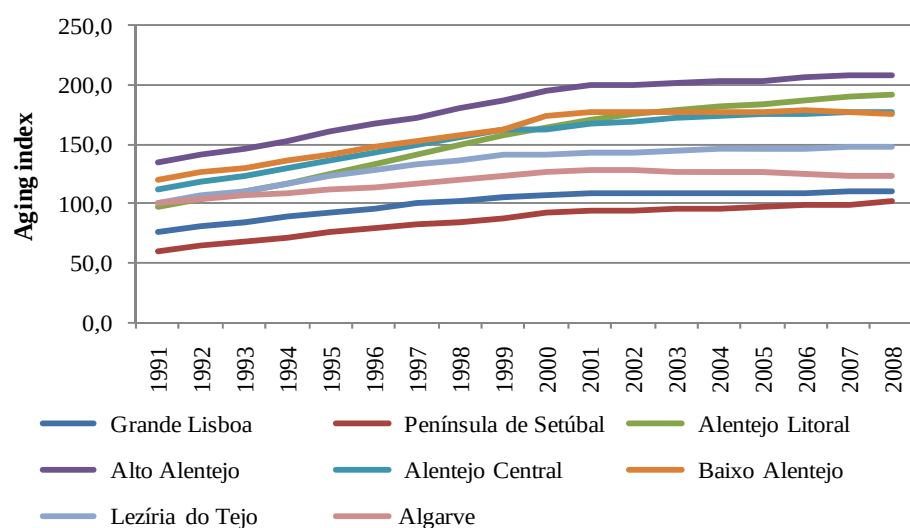


Figure 24. Aging index by NUTS-3 – Center region



Source: Statistics Portugal. Author's computation.

Figure 25. Aging index by NUTS-3 – Lisbon, Alentejo and Algarve regions

IV.3 Geography of shrinking cities in Portugal

IV.3.1 Micro scale analysis

The previous analysis although necessary, mainly illustrates common knowledge about the studied variables/indicators' behavior patterns. Hence, the macro scale analysis is a necessary confirmation of wide spread assumptions about recent demographic, labor market and economic trends in Portugal, but does not entirely answer the goals of this empirical analysis. Therefore, "statistical cities" (see section IV.1.3) and its surrounding regions come into view as an appropriate geographic level of analysis. There are 123 cities/towns in Mainland Portugal (Figure 26), ranging in size from Miranda do Douro (with 1960 inhabitants) to Lisbon (with 564657 inhabitants). Four size bands emerge from the preliminary analysis, as follows:

- (i) 1st size band – 5 cities (4%), Braga, Amadora, Vila Nova de Gaia, Oporto and Lisbon, with between 109460 and 564657 inhabitants;
- (ii) 2nd size band – 6 cities (5%), Aveiro, Queluz, Agualva-Cacém, Setúbal, Coimbra and Almada, with between 55305 and 101500 inhabitants;
- (iii) 3rd size band – 33 cities (27%) with between 21658 and 52181 inhabitants;
- (iv) 4th size band – 79 cities (64%) with between 1960 and 21589 inhabitants.

While the population of Portugal grew by 5 per cent of its 1991 population between 1991 and 2001, the population of cities, taken together, grew around 1 percentage point less than the national and the Mainland growth rate. In the Mainland, the population increased from 9.4 million to 9.9 million, between 1991 and 2001; and population residing in urban areas also increased, from 6.8 to 7.4 million individuals. In total, urban population increased 8.4 per cent, whereas rural population went downwards 3.2 per cent. Nevertheless, these figures mask important differences between cities.

Twenty four (24) shrinking cities (Table 8; Figure 27) were found, approximately 20 per cent of the total existing cities, between 1991 and 2001 (Table 9); among them are the country's two most important cities: Lisbon and Oporto. This despite the fact that the Oporto city-region and the Lisbon city-region have grown, the former as a result of an extensive metropolization process and of the expansion of the existing diffuse settlement structures, and the latter on account of an intensive process (Marques, 2004). The population loss in the centers of Portuguese city-regions may reflect the processes of desurbanization affecting the historic city, as a result of the residential repulsion exerted by them.

Looking to the parish level population data, extreme cases of negative change in the population between 1991 and 2001 occur in the center of the cities of Lisbon, Braga, Oporto

and Coimbra (1st and 2nd size band cities), more significant than in the interior of the country. Braga and Coimbra are not, although, shrinking cities according to the operational definition used. Demographic processes are also apparently felt in a fragmented way, as dynamic areas stand together, side by side, with regressive areas. Only time will tell which trend will prevail in the future, by containment or spill.

Regarding the size factor, negative change in the population in this period is more significant in the 1st size band cities – 60 per cent. This trend was not good news for the large cities. However it does not represent a new development. Broadly speaking, the trend of the 1990s was a continuation of the trend of the 1980s, or even of 1970s, in Oporto's and Lisbon's case. Amadora has also been affected in the 1990s, although to a much lesser extent than the others. Notwithstanding, around 15 and 19 per cent of the 2nd, 3rd and 4th size band cities also have negative population change (Table 9). It should be noted however, that the medium-sized cities showed a significant population dynamics especially in the last decade, while some small urban centers in areas in loss diminished its population (Marques, 2004).

The location factor, including the coastal factor, apparently does not influence in a perceptible manner, either positively or negatively, population change in cities in this period. In 1991-2001, the cities of Lisbon and Oporto were two of the cities with higher negative population change rates (two digits). In these regions (North and Lisbon), it is mainly in their proximity that also exist other cities with negative population change rates. In the Center region, cities in these circumstances are found both in coastal and interior areas. In the Alentejo region, those cities are found in the interior (Alto Alentejo). Silves is the only city, quite small, in the Algarve region with negative change rate in the population (Table 10). Evidence found corroborates Marques' argument that dichotomy cost-interior is simplistic.

Table 8. Cities with negative change in the resident population between 1991 and 2001 by NUTS-2 – Shrinking cities

Cities	North	Center	Lisbon	Alentejo	Algarve
1st size band	Oporto		Lisbon, Amadora		–
2nd size band			Almada		–
3rd size band	Matosinhos, Santo Tirso	Figueira da Foz	Odivelas, Barreiro		–
4th size band	Lamego, Lixa, Lourosa, Espinho, Fiães, Penafiel	Alcobaça Gouveia, Mangualde, Marinha Grande, Tomar	Vila Franca de Xira	Portalegre, Elvas	Silves

Source: Statistics Portugal. Author's calculations.

Table 9. Proportion of cities with negative change in the resident population between 1991 and 2001 – Shrinking cities

Cities	Total number	Negative change in the resident population (nr. of cities)	Negative change in the resident population (% of cities)
1st size band	5	3	60
2nd size band	6	1	17
3rd size band	33	5	15
4th size band	79	15	19
total	123	24	20

Source: Statistics Portugal. Author's calculations.

Thus far, the analysis in this research based on size shows strong differences between cities. However, this does not necessarily mean that city size is the cause of different trajectories – for example that large cities are doing badly because they are large cities and are suffering from suburbanization or desurbanization trends. It may be the case that city-level trends are driven by wider municipal or regional characteristics. To explore this possibility, we will also examine population change both at the municipal and the extended region level. To begin with, an observation can be made regarding Lisbon and Oporto situation in 2008, bearing in mind that the city area corresponds in both cases to the municipality area. From population estimates from Statistics Portugal for 2008, it is possible to infer that Lisbon and Oporto lost 26.2 per cent and 28.6 per cent of their population respectively between 1991 and 2008, more than 1.5 per cent per year (if estimates comply), confirming the population loss trend.

In the period between 1991 and 2001 it is possible to observe that 33 per cent of these shrinking cities accompanied their own municipality population behavior, although located in a growing region (Table 6; Appendix B). It follows that, considering 2008 estimates for the municipality and the extended region⁴⁹, the figure decreases to 24 per cent of the total shrinking cities (Table 11; Appendix B). Seventeen per cent of the shrinking cities are situated not only in a shrinking municipality but also in a shrinking region in 2001, increasing to 20 per cent in 2008 according to estimates. Conversely, regarding the fast growing cities, 78 per cent are located in equally growing municipalities and growing regions both in the periods 1991-2001 and 1991-2008⁵⁰. Additionally, more than 10 per cent of these cities have shrinking close and extended surroundings, i.e. municipalities and boundary municipalities and are consequently gaining population from the core out (Table 12; Appendix B).

⁴⁹ The numbers for resident population in 2008 are estimates provided by INE. There are no estimates available for resident population in statistical cities in 2008. Lisbon and Oporto are the only exceptions because their statistical city boundary corresponds to their municipality boundary.

⁵⁰ Idem.

Table 10. Relative and absolute population changes in shrinking cities, 1991-2001

Territorial unit	Resident population change rate 1991-2001 (%)
Alcobaça	-16,2
Almada	-5,5
Amadora	-3,3
Barreiro	-14,7
Elvas	-4,4
Espinho	-12,8
Fiães	-12,5
Figueira da Foz	-1,3
Gouveia	-2,0
Lamego	-1,4
Lisbon	-14,9
Lixa	-26,8
Lourosa	-13,3
Mangualde	-4,0
Marinha Grande	-0,5
Matosinhos	-2,7
Odivelas	-0,7
Penafiel	-9,5
Portalegre	-8,7
Oporto	-13,0
Santo Tirso	-1,1
Silves	-3,0
Tomar	-5,5
Vila Franca de Xira	-2,4
Portugal	5,0
Mainland	5,3
Urban areas	8,4
Non urban areas	-3,2
Portuguese cities (average)	3,9
Metropolitan Area of Lisbon	5,4
Metropolitan Area of Oporto	8,1

Source: Statistics Portugal. *Census 1991 and 2001* and *Atlas das cidades 2002*.

Table 11. Relative and absolute population changes in shrinking cities, municipalities and extended regions, 1991-2001

Territorial unit	Resident population growth rate (%)				
	1991-2001			1991-2008	
	City	Municipality	Extended region	Municipality	Extended region
Alcobaça	-16,2	1,8	9,9	4,8	15,7
Almada	-5,5	6,0	17,8	9,4	33,2
Amadora	-3,3	-3,3	0,9	-5,3	3,3
Barreiro	-14,7	-7,9	13,4	-9,2	27,7
Elvas	-4,4	-4,6	-5,1	-9,6	-9,7
Espinho	-12,8	-3,6	13,7	-15,7	21,2
Fiães	-12,5	14,6	12,7	24,2	19,0
Figueira da Foz	-1,3	1,7	2,6	2,6	4,6
Gouveia	-2,0	-7,4	0,0	-11,9	-2,2
Lamego	-1,4	-6,9	-9,6	-14,3	-15,5
Lisbon	-14,9	-14,9	-6,3	-26,2	-2,9
Lixa	-26,8	12,4	10,8	20,0	13,8
Lourosa	-13,3	14,6	12,7	24,2	19,0
Mangualde	-4,0	-3,8	2,4	-3,0	4,1
Marinha Grande	-0,5	10,4	11,3	15,1	17,6
Matosinhos	-2,7	10,1	2,0	11,6	-1,4
Odivelas	-0,7	2,9	0,6	18,1	2,0
Penafiel	-9,5	4,9	11,2	5,0	15,9
Portalegre	-8,7	-0,5	-4,6	-9,1	-13,2
Oporto	-13,0	-13,0	6,8	-28,6	7,9
Santo Tirso	-1,1	-29,4	14,7	0,2	22,1
Silves	-3,0	2,8	15,6	9,8	26,2
Tomar	-5,5	-0,3	0,6	-2,8	1,6
Vila Franca de Xira	-2,4	18,7	10,7	37,3	19,7

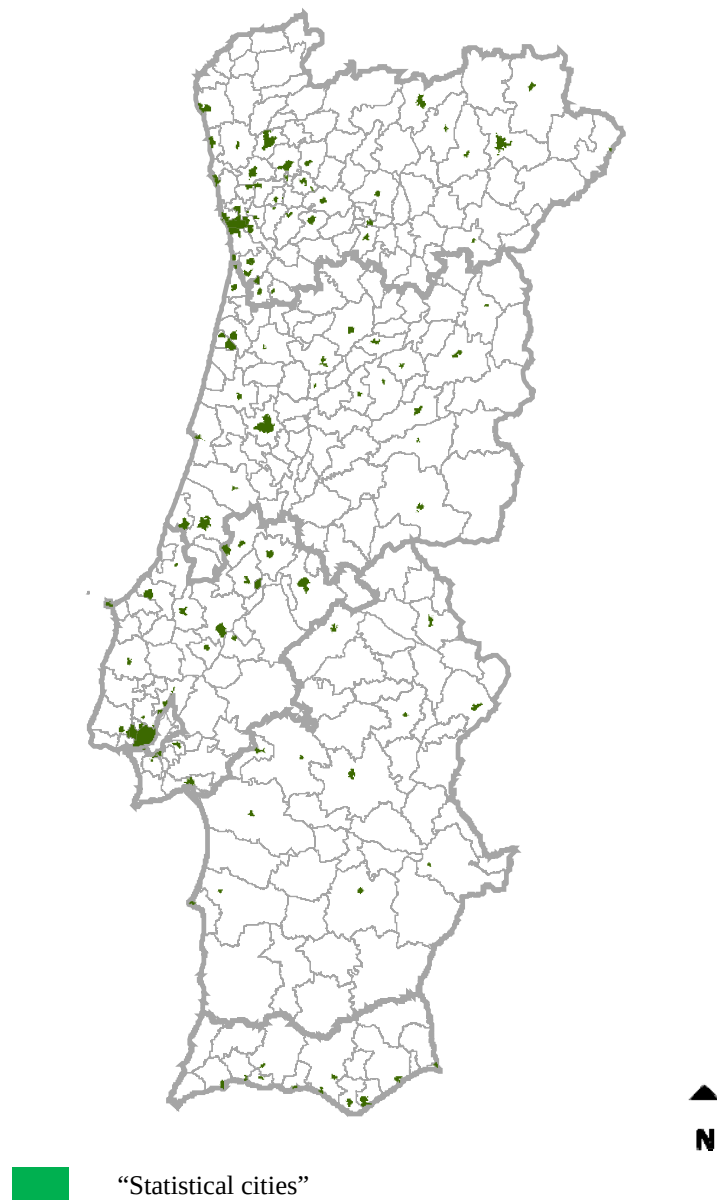
Source: Statistics Portugal. Author's calculations.

Table 12. Relative and absolute population changes in fast growing cities, 1991-2001

Territorial unit	Resident population change rate (%)				
	1991-2001			1991-2008	
	City	Municipality	Extended region	Municipality	Extended region
Agualva-Cacém	44,2	39,4	13,2	70,9	25,6
Águeda	11,8	11,3	7,2	13,2	8,5
Albufeira	50,5	50,6	24,0	86,0	39,9
Alverca do Ribatejo	20,4	18,7	10,7	37,3	19,7
Amora	9,9	28,5	12,0	50,4	23,7
Barcelos	20,5	9,3	10,8	11,5	16,1
Braga	23,3	16,2	11,4	24,7	16,5
Bragança	20,1	5,1	-4,0	4,0	-8,0
Caldas da Rainha	18,2	13,1	6,3	22,3	10,6
Cantanhede	15,8	2,1	5,7	4,8	4,0
Castelo Branco	15,2	2,6	-3,4	-0,7	-8,5
Chaves	23,4	6,7	-7,5	7,6	-11,0
Entroncamento	26,8	27,8	4,4	52,9	10,5
Ermesinde	11,4	16,0	16,4	31,0	25,7
Esmoriz	11,0	11,2	8,7	16,8	12,3
Esposende	11,2	10,7	9,9	18,1	13,7
Fafe	33,2	10,2	9,4	12,0	11,0
Faro	20,8	14,4	18,6	15,6	27,8
Fátima	56,3	15,0	8,6	26,6	13,5
Felgueiras	9,9	17,2	10,8	20,0	13,8
Freamunde	13,3	19,9	13,4	27,5	19,7
Fundão	19,6	-0,6	-2,6	-2,6	-8,0
Gafanha da Nazaré	22,3	12,0	11,6	24,2	16,6
Gondomar	15,6	14,6	8,0	21,5	10,8
Guarda	35,1	13,8	-0,6	14,6	-5,1
Guimarães	9,5	10,8	11,8	13,0	16,0
Lagoa	30,0	23,1	12,2	48,2	25,3
Lagos	20,4	18,0	12,0	34,2	20,9
Leiria	33,2	16,6	11,0	25,1	18,0
Loulé	26,4	27,0	17,2	40,5	26,9
Loures	40,6	3,6	3,3	1,5	7,6
Macedo de Cavaleiros	17,3	-7,8	-4,0	-11,4	-8,1
Maia	32,2	28,9	5,6	51,2	5,7
Marco de Canaveses	49,2	8,9	4,6	14,8	4,8
Miranda do Douro	14,4	-7,5	-9,6	-16,1	-17,5
Mirandela	36,8	2,4	-8,7	1,0	-13,8
Montijo	9,3	8,7	11,5	15,0	24,6

Territorial unit	Resident population change rate (%)				
	1991-2001			1991-2008	
	City	Municipality	Extended region	Municipality	Extended region
Oliveira do Hospital	17,7	-2,1	-4,2	-4,2	-6,4
Ovar	12,0	11,2	8,7	16,8	12,3
Paços de Ferreira	21,1	19,9	13,4	27,5	19,7
Paredes	29,8	14,2	14,0	19,4	21,1
Pombal	23,9	9,6	9,0	16,6	14,4
Portimão	11,6	15,4	12,2	28,5	23,7
Póvoa de Santa Iria	68,4	18,7	10,7	37,3	19,7
Póvoa de Varzim	26,6	15,8	12,0	21,7	16,8
Quarteira	46,9	27,0	17,2	40,5	26,9
Queluz	29,5	39,4	13,2	70,9	25,6
Rio Tinto	13,0	14,6	8,0	21,5	10,8
São João da Madeira	14,4	14,4	11,7	17,9	17,9
Seixal	19,0	28,5	12,0	50,4	23,7
Sines	12,2	10,0	0,8	10,8	-2,4
Tavira	17,8	0,6	15,4	2,2	24,2
Tondela	10,4	-2,8	6,2	-4,2	8,8
Torres Vedras	14,5	7,5	13,1	15,4	31,2
Trofa	14,9	14,5	15,4	23,9	24,9
Valongo	36,4	16,0	16,4	31,0	25,7
Valpaços	12,8	-13,6	-3,6	-17,9	-6,0
Vendas Novas	11,0	10,9	10,9	17,3	19,8
Vila do Conde	28,7	14,7	15,3	19,3	23,1
Vila Nova de Famalicão	24,5	11,6	12,0	18,0	16,3
Vila Nova de Foz Côa	13,5	-4,4	-11,3	-11,0	-19,3
Vila Nova de Gaia	16,8	16,2	4,5	25,8	3,8
Vila Real	14,0	7,9	-0,7	8,3	-1,6
Vila Real de Santo António	28,8	24,7	15,8	28,7	18,0
Viseu	18,6	11,8	1,8	18,4	6,1

Source: Statistics Portugal. Author's calculations.



Source: Statistics Portugal. Author's computation.

Figure 26. "Statistical cities" in Mainland Portugal

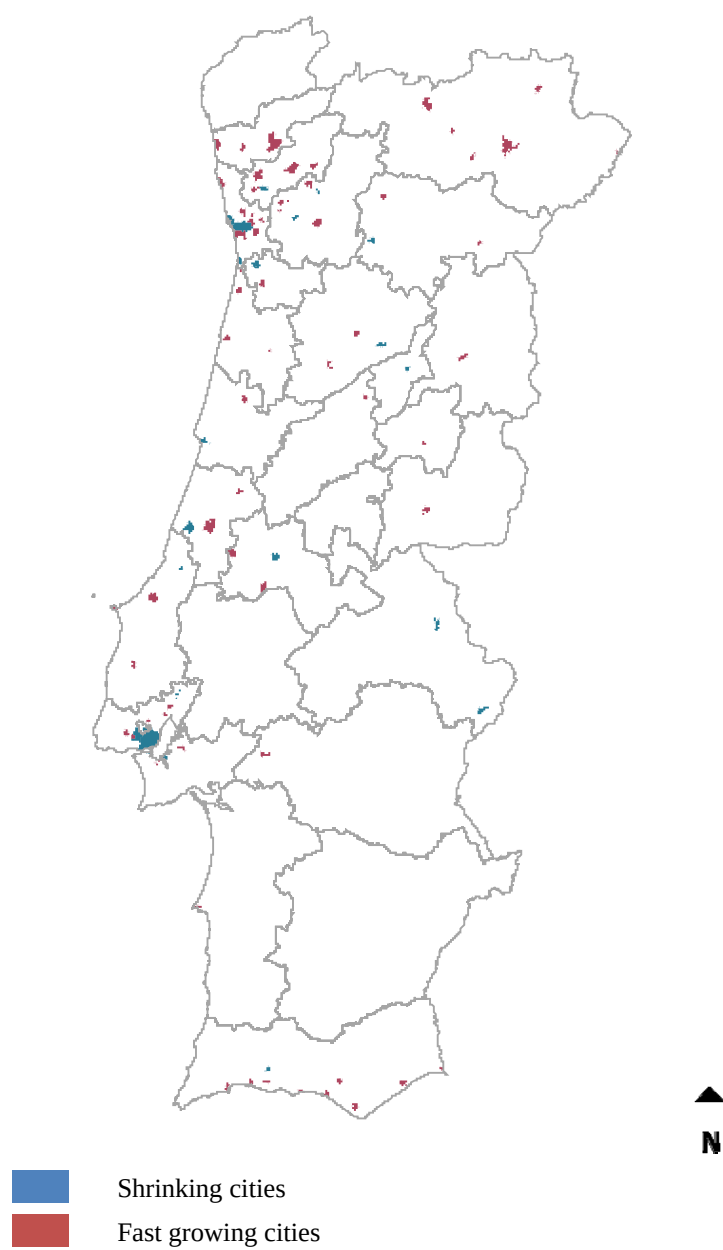


Figure 27. Shrinking cities and fast growing cities in Mainland Portugal

Summary of Chapter IV

Despite fluctuations mainly owed to important historical events, Portugal has grown population wise since 1864. However, since the 1980s that fertility levels are below generation replacement and the crude rate of natural increase is steadily declining. It was also in this period, that the population growth trend line started to follow net migration, explaining the continuation of growth. Recent population trends in Portugal are by and large due to the second demographic transition. Additionally, the latest financial crisis exposed a not so recent structural economic crisis, and the ensuing unemployment is expected to contribute to an even lower net migration and fertility rate; adding to the causes that make Portugal the fastest aging country in the European Union. Only in the very optimistic scenario of the future population forecasts for 2060, is this tendency (just slightly) overturned.

There is a general acceptance that Lisbon and the Algarve are the most thriving regions; whilst Alentejo contains more deprivation, more lethargic economies, and is less successful. Our research underlines the base on which these perceptions are founded, while highlighting some variations in a strong territorial pattern. At a macro scale, there is a noticeable influence of the metropolitan areas of Lisbon and Oporto and the coastal areas, regarding demography, labor market and economic spatial distribution patterns. In fact, population concentrates, grows, and is younger in the former areas, with better performing labor and economic indicators than in the remaining areas – the divide coast-interior is quite clear. In addition, and in spite of the population loss and aging in the metropolitan cores of Oporto and Lisbon, rural population has been declining more rapidly than urban population.

However, in Portugal, population change trajectories are more than a coast-interior partition and population decrease is already about more than movement outwards to the edge of cities. Shrinking cities are not merely concentrated in declining regions; neither growing cities are concentrated only in growing regions. Hence, city shrinkage does not appear directly linked with wider metropolitan or regional decline. Regions like Alentejo, traditionally labeled as declining only have two shrinking cities. On the contrary, it is mainly in the above mentioned metropolitan and/or coastal areas that shrinking cities are located and population decrease has unquestionably more expression in Portugal. Likewise, shrinkage is not limited anymore to the central core of the metropolitan areas. There are suburban/peripheral cities losing population as well as medium and small sized cities/towns in the same circumstances. Cities with apparently different base characteristics are shrinking in the framework described above, a country in a swift aging process, and therefore with strong shrinkage prospects.

CHAPTER V. Typology of shrinking cities in Portugal

The present chapter intends to find a classification of the Portuguese shrinking cities of the country's Mainland territory, using cluster analysis.

This classification is obtained through an exploratory multivariate statistic technique, cluster or group analysis, based on a number of indicators which characterize the most common consequences of population decrease identified in the literature concerning the 21 shrinking cities diagnosed in the previous chapter, their municipalities and their extended regions. This technique was considered relevant for the reasons explored in the beginning of this chapter and because a qualitative analysis did not prove able to give us the typological information that cluster analysis potentially provides.

Therefore it is also studied the significance of the geographical scale of analysis and the existence of different typologies of shrinkage according to this same geographical scale: cities, municipalities and extended regions. Data analysis took into consideration several methodological questions and other practical considerations mentioned in section V.2.1. After multi-scale shrinking cities clustering, the typology of shrinking cities is characterized and finally the main conclusions are presented.

V.2 Cluster Analysis

Classification is considered the true or ideal aggregate arrangement of those which are equal and the separation of those which are different, with the purpose of building and retaining knowledge; analyzing the structure of the phenomenon; and relating the different aspects of the phenomenon in question (Branco, 2004). Cluster analysis is one way to produce classifications, acting over a set of data and using mathematic, usually automatic, methods, to obtain a classification, grouping variables, or objects, in homogeneous or compact groups in relation to one or more common characteristics. This cluster analysis aims to achieve the following specific goals: data exploration (initially, it is unknown whether the data is structured or not and it is expected that the analysis can reveal the underlying structure); hypotheses generation (the analysis can reveal unexpected groups, which may suggest conjectures and hypotheses to explain the revealed structure); and prediction; which correspond to three of the specific goals pointed out by Branco (2004). Although both cluster analysis and discriminant analysis can classify objects (or cases) into categories, the latter would require knowledge of group membership for the cases used to derive the classification rule. In cluster analysis, you do not need to know who or what belongs in which groups, or even the number of groups (Norušis, 2008). In fact, the goal of the analysis is to identify the actual groups of Portuguese shrinking cities.

V.2.1 Methodological questions and other practical considerations

In order to undertake the cluster analysis, several methodological questions and practical considerations had to be taken into account and unraveled (Branco, 2004; Maroco 2003). The first was associated with the selection of the objects or cases to be clustered. This was actually the easiest answer because this task had already been fulfilled previously. The objective is to study, classify and obtain conclusions for a determined set of objects (shrinking cities), with descriptive purposes. Secondly, it was necessary, on the one hand, to define the variables – the characteristics of the objects, which identify them – that should be included in the analysis and, on the other hand, to determine if the variables should be submitted to any kind of transformations.

The choice of the number and nature of the variables influences the results of an analysis. It seems reasonable that the number of variables should be as smaller as possible according to its relevance and discriminatory power. However, this quantitative issue is controversial and different authors reveal diverse opinions. Hands and Everitt (1987; referred to by Branco, 2004) assert that increasing the number of variables improves cluster identification, but Price (1993; referred to by Branco, 2004) sustains that, on the contrary, it weakens it. Bearing in

mind the assumed emergent nature of the phenomenon, the choice was to expand possibilities by selecting a broader number of variables. Standardization is justified mainly by three reasons: the variables are measured in different units, the variables have very different variances, and the variables are from different types. Its advantage is the elimination of arbitrary effects that non-standardized variables have in the construction of similarity indexes, balancing its contribution in this construction. Nevertheless, standardization can make the distance within clusters bigger than the distance between clusters, making the results less clear (Hartigan, 1975; referred to by Branco, 2004).

Thirdly, the choice of the clustering method – hierarchical or non-hierarchical – is essential. Hierarchical cluster analysis (HCA) is an exploratory tool designed to reveal natural groupings (or clusters) within a data set that would otherwise not be apparent. It is most helpful when you want to cluster a small number of objects (less than a few hundred – 200), which was the case – 21 shrinking cities. The hierarchical cluster analysis procedure has the following unique features in SPSS: ability to compute a range of possible solutions and save cluster memberships for each of them; several methods for cluster formation, embedded variable transformation, amongst others. In addition, providing all the variables are of the same type, the HCA procedure can analyze interval (continuous), count, or binary variables. Moreover, hierarchical methods do not require prior knowledge of the number of clusters. Nonetheless, there are disadvantage to HCA: every time a shrinking city is attributed to a cluster, it can never leave that cluster.

Generally speaking, agglomerative algorithms have been most popular than divisive ones, because the latter are very demanding computational wise (Branco, 2004; Maroco, 2003). The most common agglomerative hierarchical methods are single linkage (nearest neighbor) and complete linkage (furthest neighbor), average-linkage-between-groups method (UPGMA), centroid (UPGMC), median (WPGMC) and Ward. Single linkage, usually selected by default in most software, tends to maximize connectivity between clusters and has the tendency to create a smaller number of clusters. Nevertheless, it is particularly robust to the existence of structural relations between the initial data and has been a favored method in social sciences. Complete linkage tends to create a bigger number and produce compact clusters, to minimize the distance between clusters in each step. In comparison, the remaining methods tend to produce intermediate cluster solutions.

There is not a better hierarchical criteria and the general suggestion is to use several methods. If most criteria and methods produce similar interpretable solutions, it is possible to conclude that the data matrix presents natural, rather than artefactual, groups (Maroco, 2003). However, Pereira (2006) considers that the agglomerative hierarchical methods with best

performance are Ward and average linkage. The proximity measures depend on the nature of the characteristics observed in the objects. Thus, it is important to know how to build proximity measures when the variables are quantitative and qualitative (nominal and ordinal). For quantitative variables, the most known dissimilarity measure is Euclidian Distance. This dissimilarity measure is not always satisfactory, if the variables are measured in different units, if they have very different variances and if they are correlated. To overcome these inconveniences of Euclidian Distance there are some derived measures. City block is a measure often mentioned (Pereira, 2006).

Non hierarchical clustering methods are intended to group objects (not variables) in a set of clusters whose number is defined by the analyst. The main advantage of these methods is the simplicity of applying it to big data matrixes. In addition, non hierarchical methods are able to regroup objects in a different cluster from the initial cluster it was assigned to, conversely to hierarchical methods where the inclusion of an object in a cluster is definitive. Thus, the probability of mistakenly classifying an object in a certain cluster is smaller. A common suggestion is to operate hierarchical and non-hierarchical methods, compare the results, verify if they are consistent and finally select the solution with the easiest interpretation. Another suggestion is to produce a hierarchical solution to determine the number of clusters and use it in the non-hierarchical methods (Branco, 2004; Maroco, 2003). Experience and good sense say that both methods should work complementarily. The option of choosing one is not advisable, unless the choice is clearly natural (Branco, 2004). Furthermore, using different methods and algorithms has the advantage of revealing different aspects in the data structure and works as a validation procedure (see below).

The fourth question is connected with the credible validation of the analysis' results. It is essential to evaluate the results to see whether they constitute a useful summary or if, on the contrary, they represent an inconsistent structure imposed upon them (given that cluster analysis always produces a classification and different methods can lead to different results). From this perspective, validation procedures for the cluster analysis should be applied, as follows: (i) the same analysis should be carried out with different distance measures and aggregation methods; (ii) variables should be deleted and simplified and aggregation carried out once more; (iii) when applying *k*-means clustering, the procedure should be repeated with a different case order until the solution is stabilized, because, in non-hierarchical procedures, the solution can depend on the order of the cases in the set of data (Pereira, 2006); and (iv) methods should be used with and without variable standardization; (v) finally the respective results should be compared.

V.2.2 Data analysis

The software used was PASW Statistics 18 (formerly SPSS Statistics) from IBM SPSS.

In total 34 general indicators were signalized (Table 16); then 12 were selected for the city and 41 for the municipality and extended region (remembering: a group of the first line of neighboring municipalities for each city). The municipalities and extended regions considered are those that contain a shrinking city. These indicators represent the shrinkage situation in each city, municipality and extended region, concerning the consequences of population decrease. Tables 13, 14 and 15 present a variable description in terms of mean, standard deviation, minimum and maximum values verified by city, municipality and extended region. In SPSS, K-means clustering does not include the possibility of standardizing measures. The procedure **Descriptive Statistics** was used for variable standardization, whenever necessary that all variables equally contributed to the analysis.

Table 13. Descriptive Statistics – City

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Population density (nr./ km ²)	24	490	11102	3224,81	2784,290
Buildings aging index (nr.)	24	47	752	225,27	215,764
Proportion of derelict buildings (%)	24	1	8	3,40	1,796
Proportion of buildings not exclusively residential (%)	24	71,73	92,02	84,6175	5,31324
Proportion of vacant conventional family dwellings (%)	24	7	22	11,96	3,137
Average mortgage charge resulting from the purchase of a usual residence conventional family dwelling (€)	24	171	343	273,04	43,207
Average rent for usual residence conventional family dwellings, leased and subleased, built after 1990 (€)	24	109	313	188,43	52,733
Proportion of the population over 21 years of age attending or that attended tertiary education (%)	24	4	21	10,76	3,783
Illiteracy rate (%)	24	4	11	6,37	1,382
Old-age dependency ratio (nr.)	24	13,98	36,44	24,0233	5,79324
Aging index (nr.)	24	54	203	113,07	36,627
Unemployment rate (broad sense) (%)	24	4	10	6,99	1,679
Valid N (listwise)	24				

Table 14. Descriptive Statistics – Municipality

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Population density (nr./ km ²) 2001	24	37	7389	1606,58	2335,653
Population density (nr./ km ²) 1991	24	38	7839	1681,08	2560,897
Population density change rate (%) (1991 - 2001)	24	-14,9	18,7	1,729	9,0051
Dwelling density (nr./ km ²) 2001	24	19	3463	753,75	1120,281
Building density (nr./ km ²) 2001	24	14	1124	238,92	276,018
Buildings aging index (nr.) 2001	24	35	709	155,17	169,587
Proportion of derelict buildings (%) 2001	24	,70	7,80	3,3583	1,71259
Proportion of buildings not exclusively residential (%) 2001	24	3	22	9,88	4,637
Proportion of buildings not exclusively residential (%) 1991	24	5	28	9,96	5,377
Proportion of buildings not exclusively residential change rate (1991 - 2001) (%)	24	-56,3	60,6	6,129	26,1289
Dwellings change rate (1991 - 2001) (%)	24	4	33	18,17	9,078
Buildings change rate (1991 - 2001) (%)	24	-13	23	8,92	8,423
Proportion of vacant conventional family dwellings (%) 2001	24	7	15	10,67	2,496
Per-inhabitant purchasing power 2005	24	58	216	100,08	34,131
Per-inhabitant purchasing power 2002	24	55	220	100,00	38,896
Per-inhabitant purchasing power change rate (2002 - 2005) (%)	24	-11,4	34,7	2,238	9,5693
Relative dynamism factor of purchasing power 2005	24	-1,61	1,45	-,4854	,58791
Relative dynamism factor of purchasing power 2002	24	-1,59	1,27	-,4767	,55121
Relative dynamism factor of purchasing power change rate (2002 - 2005) (%)	24	-725,0	298,7	-36,492	183,7474
Average monthly mortgage charge resulting from the purchase of a dwelling (€) 2001	24	217	334	274,46	36,383
Average monthly amount for renting conventional dwellings (€) 2001	24	70	182	114,12	23,553

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Proportion of resident population which completed tertiary education (%) 2001	24	2	21	7,42	4,283
Proportion of resident population which completed tertiary education (%) 1991	24	0	11	3,17	2,713
Proportion of resident population which completed tertiary education change rate (1991 - 2001) (%)	24	68,8	217,7	136,517	42,8097
Illiteracy rate (%) 2001	24	4	13	8,04	3,000
Illiteracy rate (%) 1991	24	4	18	9,37	4,332
Illiteracy rate change rate (1991 - 2001) (%)	24	-26,1	6,6	-11,354	10,1253
Proportion of the most socially valued professionals (%) 2001	24	,94	3,44	1,8354	,65319
Proportion of the most socially valued professionals (%) 1991	24	,32	1,80	,8579	,34600
Proportion of the most socially valued professionals change rate (1991 - 2001) (%)	24	67,7	236,2	122,429	46,0464
Social diversification index (nr.) 2001	24	,56	,76	,6846	,05233
Old-age dependency ratio (nr.) 2001	24	13	47	24,46	8,822
Unemployment rate (broad sense) (%) 2001	24	3	10	6,17	1,834
Criminality rate (‰) 2005	24	18	78	35,83	13,074
Criminality rate (‰) 2001	24	16	86	36,79	18,361
Criminality rate (‰) 1998	24	11	88	35,00	19,415
Criminality rate change rate (1998 - 2005) (%)	24	-31,0	103,4	13,267	32,0072
Tax revenue change rate (%) (1991 - 2001)	24	84	512	240,17	99,806
Tax revenue change rate (%) (1991 - 2007)	24	46	485	276,13	122,668
Tax revenue change rate (%) (2001 - 2007)	24	-40	109	12,50	33,734
Per-inhabitant electricity network (km/inhabitant)	24	,003	,052	,02021	,012101
Valid N (listwise)	24				

Table 15. Descriptive Statistics – Extended regions

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Population density (nr./ km ²) 2001	24	32,99	4804,75	1273,8013	1556,98869
Population density (nr./ km ²) 1991	24	34,62	5720,21	1382,0117	1860,54416
Population density change rate (%) (1991 - 2001)	24	-17,1	30,9	3,454	12,8239
Dwelling density (nr./ km ²) 2001	24	16,92	2404,92	611,5987	780,24583
Building density (nr./ km ²) 2001	24	12,94	645,10	190,8583	178,76120
Buildings aging index (nr.) 2001	24	24,88	334,74	131,7746	83,24433
Proportion of derelict buildings (%) 2001	24	1,12	5,22	3,0054	,92008
Proportion of buildings not exclusively residential (%) 2001	24	6,08	15,87	9,2521	2,59717
Proportion of buildings not exclusively residential (%) 1991	24	4,78	17,19	8,9483	3,08017
Proportion of buildings not exclusively residential change rate (1991 - 2001) (%)	24	-49,4	36,4	7,192	18,3886
Dwellings change rate (1991 - 2001) (%)	24	6,33	37,65	23,4638	9,44231
Buildings change rate (1991 - 2001) (%)	24	1,86	27,03	11,9212	6,47103
Proportion of vacant conventional family dwellings (%) 2001	24	7,77	13,22	11,0317	1,28080
Per-inhabitant purchasing power 2005	24	63,68	157,82	99,1667	27,12376
Per-inhabitant purchasing power 2002	24	57,15	168,98	99,8713	32,28225
Per-inhabitant purchasing power change rate (2002 - 2005) (%)	24	-7,5	12,4	,863	6,3874
Relative dynamism factor of purchasing power 2005	24	-1,41	3,80	-,3446	,97490
Relative dynamism factor of purchasing power 2002	24	-1,15	4,06	-,3138	,97810
Relative dynamism factor of purchasing power change rate (2002 - 2005) (%)	24	-73,8	65,8	-4,754	37,0792
Average monthly mortgage charge resulting from the purchase of a dwelling (€) 2001	24	207,11	332,61	281,7067	37,36969
Average monthly amount for renting conventional dwellings (€) 2001	24	66,63	184,18	121,0800	23,91908

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Proportion of resident population which completed tertiary education (%) 2001	24	4,02	16,04	8,1162	3,41390
Proportion of resident population which completed tertiary education (%) 1991	24	1,51	9,35	3,7750	2,32395
Proportion of resident population which completed tertiary education change rate (1991 - 2001) (%)	24	71,6	179,3	134,467	35,9963
Illiteracy rate (%) 2001	24	5,09	16,79	8,8600	3,74660
Illiteracy rate (%) 1991	24	5,24	21,31	10,7988	5,09766
Illiteracy rate change rate (1991 - 2001) (%)	24	-29,1	-,3	-15,600	7,4342
Social diversification index (nr.) 2001	24	,61	,75	,6950	,03683
Old-age dependency ratio (nr.) 2001	24	14,54	41,80	24,1083	7,56677
Proportion of the most socially valued professionals (%) 2001	24	,98	2,77	1,8263	,51739
Proportion of the most socially valued professionals (%) 1991	24	,38	1,40	,8329	,29577
Proportion of the most socially valued professionals change rate (1991 - 2001) (%)	24	73,4	159,4	125,642	24,5143
Unemployment rate (broad sense) (%) 2001	24	3,95	9,13	6,7521	1,26348
Criminality rate (‰) 2005	24	20,29	70,07	34,9617	11,66183
Criminality rate (‰) 2001	24	16,95	59,44	34,4362	12,94950
Criminality rate (‰) 1998	24	16,44	60,04	32,4904	13,87960
Criminality rate change rate (1998 - 2005) (%)	24	-24,5	38,0	12,617	16,9983
Valid N (listwise)	24				

Table 16. Variables/Indicators by consequence or group of consequences and geographical location

Consequence or Group of Consequences	Variable/Indicator ⁵¹	Geographical Location	
		City	Municipality/Extended Region
GROUP 0: sinking population density	Population density (nr./ km ²)	✓	✓
	Population density change rate (%)	×	✓
GROUP 1: over dimensioned and underutilized infrastructure	Per-inhabitant electricity network (km/inhabitant)	×	✓
higher transaction and per unit costs of public services			
GROUP 2: smaller tax base and declining tax revenues	Tax revenue change rate (%)	×	✓
GROUP 3: surplus of spaces and buildings declining purchasing power falling property prices slack housing market	Dwelling density (nr./ km ²)	×	✓
	Building density (nr./ km ²)	×	✓
	Buildings aging index (nr.)	✓	✓
	Proportion of derelict buildings (%)	✓	✓
	Proportion of buildings not exclusively residential (%)	✓	✓
	Proportion of buildings not exclusively residential change rate (1991 - 2001) (%)	×	✓
	Dwellings change rate (1991 - 2001) (%)	×	✓
	Buildings change rate (1991 - 2001) (%)	×	✓
	Proportion of vacant conventional family dwellings (%)	✓	✓
	Relative dynamism factor of purchasing power	×	✓
	Relative dynamism factor of purchasing power change rate (2002 - 2005) (%)	×	✓
	Per-inhabitant purchasing power	×	✓

⁵¹ Variables designation is in accordance with the Statistical Office of the European Communities/Eurostat or in alternative, when unavailable, with the translation made by Statistics Portugal.

Consequence or Group of Consequences	Variable/Indicator ⁵¹	Geographical Location	
		City	Municipality/Extended Region
GROUP 4: decreasing population heterogeneity and growing segregation cumulating social problems increasing crime incidence	Per-inhabitant purchasing power change rate (2002 - 2005) (%)	x	✓
	Average monthly mortgage charge resulting from the purchase of a dwelling (€)	x	✓
	Average monthly amount for renting conventional dwellings (€)	x	✓
	Average mortgage charge resulting from the purchase of a usual residence conventional family dwelling (€)	✓	x
	Average rent for usual residence conventional family dwellings, leased and subleased, built after 1990 (€)	✓	x
	Proportion of resident population which completed tertiary education (%)	x	✓
	Proportion of resident population which completed tertiary education change rate (1991 - 2001) (%)	x	✓
	Proportion of the population over 21 years of age attending or that attended tertiary education (%)	✓	x
	Illiteracy rate (%)	✓	✓
	Illiteracy rate change rate (1991 - 2001) (%)	x	✓
	Proportion of the most socially valued professionals (%)	x	✓
	Proportion of the most socially valued professionals change rate (1991 - 2001) (%)	x	✓
	Social diversification index (nr.)	x	✓
	Old-age dependency ratio (nr.)	✓	✓
	Aging index (nr.)	✓	✓
	Unemployment rate (broad sense) (%)	✓	✓
	Criminality rate (‰)	x	✓
	Criminality rate change rate (1998 - 2005) (%)	x	✓

V.2.3 Shrinking cities clustering

City

As mentioned before, the cluster analysis at the City level through hierarchical method was made using several methods and distance measures. Generically, analyzing the outputs, especially dendrograms, all the methods (average linkage and Ward) and distance measures used (block and squared Euclidian) point to 3 or 2 clusters, in which one has two distinct groups. In the absence of variable standardization, the city of Odivelas appears as an outlier, very far apart from the rest of the cities. With variable standardization, Odivelas is integrated in a cluster and does not stand out from the rest. It should be noted that Lisbon and Oporto always belong to the same cluster, either isolated or jointly with other metropolitan cities. The same procedures described above were applied to the selected variables excluding the “population density” variable (which presented the highest standard deviation) and some differences were detected in the outputs. Usually 2 clusters are found, in which frequently one of them has two distinct groups (Appendix E). Once more, Lisbon and Oporto are clustered, alone or with other metropolitan cities. There is a tendency for Silves to appear as an outlier, especially when using average linkage.

To verify if Odivelas and Silves were outliers, z-scores were used as an identification method. In fact, bearing in mind that the data set was small (less than 50), there were values above 2.5 in the variable “z-population density” – 2.83, in the Odivelas case; and in the variable “z-illiteracy rate” – 3.24, in the Silves case that confirm that these cases are outliers. Therefore it was necessary to decide what to do with these dissenting observations/outliers. K-means clustering is very sensitive to outliers, since they will usually be selected as initial cluster centers and thus this will result in outliers forming clusters with small numbers of cases. A solution would be to, after screening the data set for outliers (Norušis, 2008), remove Odivelas and Silves from the initial analysis. Although this would be the simplest and most common way to handle them, this approach is only advisable and justified if the outliers are due to errors without viable correction. Otherwise, outliers should be treated carefully because they contain relevant information on the underlying data and these characteristics may be decisive in the knowledge of the cases, especially because they are not a sample, they constitute the “total population” of cities.

K-means clustering was then applied with and without variable standardization, including and excluding “population density”, with estimated missing values for Odivelas, for 2 and 3 clusters solutions, but also for a 4 clusters solution so that the cities of Odivelas and Silves

had the *space* to create separate clusters. The final cluster solution and conclusions are presented later in the chapter, in section V.2.4.

Municipality

At the Municipal level, there were three variables with missing values for the Odivelas case. The variables were: “criminality rate 1998”, “criminality rate change rate (1998-2005)”, “tax revenue change rate (1991-2001)”, and “tax revenue change rate (1991-2007)”. The elimination of objects with missing values is not advisable when the number of objects in this circumstance is big (Gordon, 1999). Although this is not the case, it was considered important to maintain all the objects – cities. It was decided to replace the missing values through estimation using SMEAN in PASW. The “criminality rate change rate (1998-2005)” value was obtained through calculation using the “criminality rate 1998” estimate value.

Through the cluster analysis for the municipality using the hierarchical methods mentioned before is possible to make several remarks. Whether the variable “population density” is considered or not, the resulting outputs do not differ considerably from each other. Both the average linkage and the Ward’s method suggest 2 to 3 clusters. The average linkage method, using not only the squared Euclidian distance but also the block distance measure, suggest Silves as an outlier providing standardized variables are used. The municipalities of Lisbon, Oporto and Amadora, on the one side; and Espinho, Matosinhos, Almada and Barreiro, on the other, are the most striking clusters. Occasionally, there are some variations in the grouping of these eight municipalities, but Lisbon and Oporto are always included in the same cluster.

In order to take a step further in the validation of the results of cluster analysis the following variables “proportion of not exclusively residential buildings change rate (1991-2001)”, “proportion of resident population which completed tertiary education change rate (1991-2001)”, and “proportion of the most socially valued professionals change rate (1991-2001)”, were substituted by “not exclusively residential buildings change rate (1991-2001)”, “resident population which completed tertiary education change rate (1991-2001)”, and “most socially valued professionals change rate (1991-2001)”. This was done in order to verify if the simplified variables would produce different results from the composed variables. There were not significant changes, or none, in the number of clusters or in their composition.

To verify if Silves was an outlier, we used z-scores as an identification method. In effect at the municipal level, bearing in mind that the data set was smaller than 50, there were values above 2.5 in the following variables: “z-relative dynamism factor of purchasing power”, z-average monthly amount for renting conventional dwellings, “z-tax revenue change rate”, and “z-per-inhabitant electricity network”. K-means clustering was then applied with and without

variable standardization, with and without variables' simplification, and with and without population density for 2 and 3 clusters solutions, but also to 4 clusters so that Silves had the *space* to create a separate cluster. The final cluster solution and conclusions are presented later in the chapter, in section V.2.4.

Extended regions

Looking at the hierarchical methods outputs for the Extended Region, it is possible to conclude that there are, once more, no considerable differences between the procedure with and without the “population density” variable. Generally, the dendrograms show 2 clusters. Bearing in mind that one of these clusters has two differentiated groups of cities, a three cluster solution is also suitable at this level. The average linkage method, using block measure and with no standardization, accentuate Almada position as an outlier; at the same time, with standardized variables, the same method and measure show the extended region of Silves with an isolated positioning. The same happens with Silves when the squared Euclidian distance is used for the clustering. In addition, Lamego is perceptible as an outlier when using: average linkage method; squared Euclidian distance; and standardized variables.

As usual the cities of Lisbon and Oporto persistently belong to the same cluster, jointly with other cities from their metropolitan areas. The same step taken in the Municipalities clustering – substituting the three variables mentioned previously – was adopted here. Once again, there were not noteworthy changes, or even no changes, in the number of clusters originated and neither in their composition. To confirm if Almada, Lamego and Silves were outliers, the usual identification method was used. Unlike Almada, bearing in mind the size of the data set, there were values in three and four standardized variables that substantiate that Lamego and Silves, respectively, are indeed outliers. K-means clustering was then applied in the same conditions described above.

Global

The Global clustering analysis includes all the variables used for the three level clustering analyses – cities, municipalities and extended regions – and for that reason underlying it are all the considerations regarding the cases and variables mentioned before. Looking at the hierarchical methods outputs it is possible to see that there are no significant differences between the procedure with and without the “population density” variable. Normally, the dendrograms show 2 clusters, taking into consideration that one of these clusters has two apparent groups of cities. Thus, a three cluster solution is also acceptable. The results are actually very similar to the Municipalities level cluster analysis, but not as stable.

The resultant outputs do not differ considerably from each other, whether the variable “population density” is included or not. The average linkage method, using not only the squared Euclidian distance but also the block distance measure, suggest Silves as outlier providing standardized variables are used. Lamego also stands out when squared Euclidian distance measure is used in the analysis. The municipalities of Lisbon, Amadora and Oporto, on the one hand; and Espinho, Matosinhos, Almada and Barreiro, on the other hand, are the most striking clusters found in the analysis. Seldom, there are some variations in the grouping of these eight extended regions, although more than in the Municipalities clustering, but Lisbon and Oporto are always in the same cluster.

There were not changes worth mentioning, or even no changes, in the number of clusters created and neither in their composition, as a result of the simplification of the variables in the Municipalities clustering subsection. Finally, K-means clustering was applied in the same conditions described formerly in this section.

V.2.4 Cluster characterization and conclusions

Considering the city level, it is possible to identify three clusters (Figure 28), corresponding to different types of shrinking cities, as follows.

The **cluster 1 – “Metropolitan cores and (de)industrialized areas”** is constituted by six cities: Almada, Barreiro, Lisbon, Oporto, Tomar and Vila Franca de Xira. These are cities with relatively high population density, generally with an aged and derelict building stock, very tertiarized (with less than one third of exclusively residential buildings), and with an above city average dwellings vacancy rate. Population aging and unemployment are expressive, namely through a high old age dependency index and aging index, and unemployment rate. The cities are mostly from the Lisbon region, except for Oporto and Tomar located in the North and Center. Regarding size, this cluster is composed by large and very large cities from Lisbon and the North and medium and small cities from Lisbon and the Center, characterized by strong population decrease in the metropolitan core cities, and strong to average population decline in the other cities. In overall, these are some of the most affected cities in Portugal both by shrinkage, or at least population loss and its consequences.

The **cluster 2 – “Small interior and coastal cities and towns”** comprises the cities of Elvas, Portalegre, Silves, Figueira da Foz and Gouveia – the first two located in the interior Alentejo, the third in Algarve and the two later in the Centre coast and interior respectively, mainly from the 4th size band identified, whose decrease ranges from -1.3 to -8.7 per cent, “growing” from North to South, and from the coast to the interior of the country. This group of cities has a population density below average, a not so aged building stock, lower shares of population with/in tertiary education and a higher illiteracy rate, in addition to an aged and dependent population. Generally speaking, this is the group of cities where the consequences typically associated with shrinkage are more visible than population decrease itself. We can call this an intermediate cluster, with less (or no) influence from the two metropolitan areas.

The **cluster 3 – “Northern cities, small Central cities or towns and Greater Lisbon suburban cities”** is the most heterogeneous of the three clusters; it includes the cities of Alcobaça, Amadora, Espinho, Fiães, Lamego, Lixa, Lourosa, Mangualde, Marinha Grande, Matosinhos, Odivelas, Penafiel, Santo Tirso, that is to say cities from all the size bands identified. With some exceptions belonging to the metropolitan areas (e.g. Odivelas), population density is lower than city average. Almost all the consequences are not as remarkable as in the other clusters: the aging phenomenon is not as noticeable, both concerning population and the building stock, but the proportion of the population over 21 attending or that attended tertiary education is lower. It includes all of the Northern shrinking

cities, except Oporto; small towns located in the Center region, and suburban cities found in Greater Lisbon NUTS-3 region. Unlike cluster 2, this cluster includes some of the cities where the consequences of population decrease are milder. On the contrary, population decrease ranges from -13.3 per cent in Lourosa to -0.5 per cent in Marinha Grande, which together with Matosinhos (-0.7%), is comparatively closer to stagnation rather than shrinkage. Among the other geographical levels of analysis defining a typology is not straightforward. Bearing in mind the steadiest/logical solution, municipalities can be divided in three clusters. **Cluster 1** corresponds undoubtedly to the “**Metropolitan cores**”, that is to say to the cities/municipalities of Lisbon and Oporto. These cities have a similar population density (although the exclusion of this variable does not change the clustering solution), population density change rate, and similar dwelling density (jointly with Amadora), high building density (although much higher in Lisbon), building aging index, proportion of derelict buildings (only comparable to Lamego), negative building change rate (stronger in Oporto), similar vacancy rate (although not alone), and the two highest per-inhabitant purchasing powers and highest criminality rates, but decreasing. The cities also have two of the highest proportions of population which completed tertiary education and most socially valued professionals. In addition, Lisbon and Oporto have the lowest tax revenue change rates, which actually decreased between 2001 and 2007.

Cluster 2 includes the municipalities of Alcobaça, Elvas, Gouveia, Silves, which have cities comprised by the 4th size band, excluding the North. These municipalities do not have major common characteristics, except maybe for the proportion of population which completed tertiary education and the illiteracy rate. **Cluster 3** is constituted by Almada, Amadora, Barreiro, Espinho, Marinha Grande, Matosinhos, Odivelas, and Vila Franca de Xira, which in comparison with the previous cluster do not have striking similarities between them. It should be noted that these municipalities are part or in the vicinity of the metropolitan areas. Given the unconvincing results it is also possible to choose a two clusters solution both for the municipal and global level, which includes a cluster composed by the metropolitan municipalities: Almada, Amadora, Barreiro, Espinho, Lisbon, Matosinhos, Odivelas, Oporto; and a second cluster composed by the rest of the cities.

As a final point, neither the extended region nor the global cluster analyses provide stable and/or interpretable typology solutions. Apparently as we broaden the geographical scale, the more watered down the results become; a fact that may be interpreted as supporting the urban/city scale of the shrinkage phenomenon.

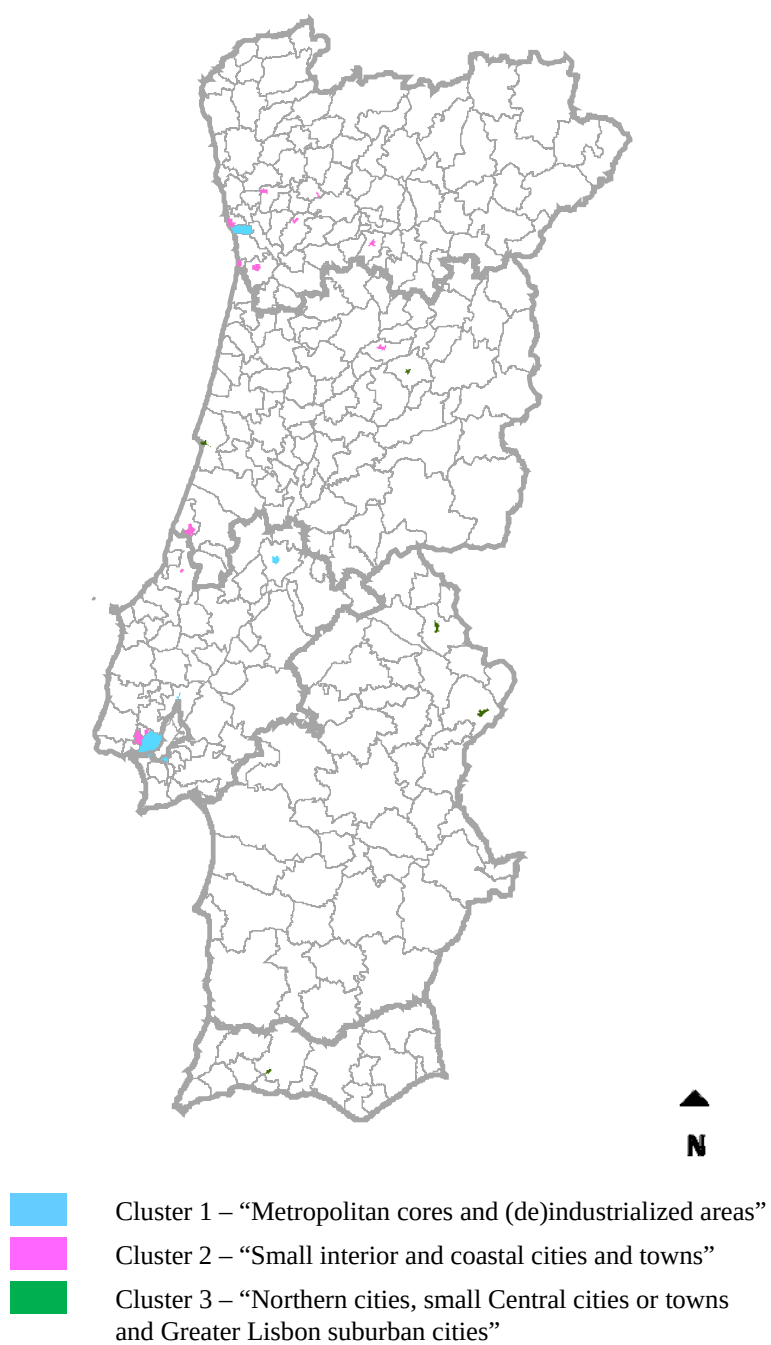


Figure 28. Clusters identifying map grouping the cities according to the level of urban shrinkage

Summary of Chapter V

In order to accomplish the goal of clustering cities in similar levels of shrinkage, i.e. obtaining a typology of shrinking cities, we applied a cluster analysis in four steps to the variables concerning the cities, municipalities, extended regions and the previous three geographic levels considered as a whole – global. To determine homogeneous groups of cities it was first used the agglomerative hierarchical clustering method and, second, a non-hierarchical partitioned method was applied, K-means, using the number of clusters obtained through the former clustering method. The hierarchical cluster analysis was made using different cluster methods and distance measures, with variations as described in the chapter. It followed an analysis through a non-hierarchical method, considering 2, 3 and 4 clusters. K-means clustering was applied to the four geographical levels of analysis, as expressed all the way through subsections V.2.1, V.2.2 and V.2.3.

From the beginning the results regarding the cities were much clearer than the other results. Widening the geographical level to the municipality or extended regions did not help to characterize shrinkage; on the contrary it diluted any results obtained for the cities. Three clusters were identified at the city level – metropolitan cores and (de)industrialized areas; small interior and coastal cities and towns; and northern cities, small central cities or towns and Greater Lisbon suburban cities – in descending order of intensity of shrinkage. However, as the spatial scale broadened, the more artificial and weaker the clusters turned out to be, hinting either the variety of contexts in which shrinkage occurs and/or underlining the embryonic nature of shrinkage in Portugal. The cities of Lisbon and Oporto clearly stand out from the remaining cities, with a more evident degree of urban shrinkage than other cities, perhaps related to their urbanization level.

The first conclusion of this chapter is that the multivariate statistic techniques used were successful in identifying a typology of shrinking cities in the Portuguese Mainland territory, despite the emergent nature of the phenomenon. The second relevant conclusion of this chapter is related to the fact, mentioned previously, that urban shrinkage in Lisbon and Oporto is more matured than elsewhere. This reinforces the notion that shrinkage has a strong temporal/ urban maturity component, and that with time any city can be (more) affected by shrinkage. The final conclusion is that an analysis made at the city level highlights the frailty of an analysis using merely NUTS-2 and NUTS-3 regions, municipalities and extended regions, which partly hide this phenomenon. This reinforces the city level as the scale of shrinkage in Portugal, together with the interior regions, already demonstrated in Chapter IV.

CHAPTER VI. Spatial planning instruments and policy diagnosis

This chapter draws upon local, regional and national spatial planning instruments and policy documents so as to describe the relation between planning and shrinkage in Portugal, more specifically whether this issue is addressed and how it is translated into spatial planning documents.

This chapter is structured in four parts. The first opening part presents the framework of analysis, regarding questions and goals to be answered and data acquisition. The diagnosis is simple and unpretentious in order to get a feel of the general awareness concerning the shrinkage phenomenon. The second part describes the individual state of alertness in each selected city regarding shrinkage and the consequences of population decrease. The third and fourth parts of the chapter depict the regional and the national spatial planning contexts respectively, in which these shrinking cities are integrated.

The results give us a snapshot of the official spatial planning discourse in Portugal that allows for a comparison between this chapter and the literature review on planning and shrinkage (Chapter III), and a comparison between the current chapter and the results about shrinkage and typologies of shrinking cities in Portugal (Chapters IV and V) in the concluding chapter. Hence, this chapter aims to contribute further to the Portuguese angle on shrinkage, and improve the international discussion on this topic.

VI.1 Methods and materials

VI.1.1 Goals and questions to be answered

This spatial planning instruments and policy diagnosis aims at helping in the assessment of whether, and how, current land use and development policies align with the identified population decline and its most apparent consequences (Chapters IV and V). In other words, with this plain diagnosis, we set out to review the spatial planning instruments and policies applicable to selected cities, namely: Barreiro, Elvas, Espinho, Lamego, Lisbon, Matosinhos, Oporto, Tomar, and Vila Franca de Xira. These cities correspond to the cities where population decrease and/or consequences of shrinkage are felt more intensely and that are moderately representative (e.g. most affected regions, size bands and clusters). In addition, other documents are analyzed to define the regional and national framework.

The key goal of this content analysis is to shed light on how planning is reacting, according to the local (municipal) and central government's awareness of the shrinkage phenomenon. The diagnosis is not intended to grade the municipal and central governments' planning performance, but instead to be acquainted with the perception and policy formulation in situations of population decline and shrinkage. We do not use this diagnosis expecting to measure how well decision makers and planners are doing in planning for shrinkage, but to qualitatively assess how, in a first level of action, cities are dealing with shrinkage. This will in turn, almost surely, allow for the exposure of areas to progress in planning for shrinkage.

Reviewing the spatial planning instruments and policy documents implies answering a group of questions regarding aspects of shrinkage. To be precise: what do the documents say about:

- population decline and other related demographic issues, such as natural increase, net migration, elderly population, etc?
- population density? Is it perceived and in what way? What about its consequences?
- over dimensioned and underutilized infrastructure? Explicitly, is it a concern?
- higher transaction and higher per unit costs of public services and what it means for the city and their inhabitants?
- smaller tax base and declining tax revenues? What are the alternatives for increasing revenues?
- surplus of spaces and buildings? Is it a priority to revitalize existing built areas and (or) reprogram derelict land, or conversely urban expansion is the main concern?
- the inhabitants declining purchasing power? Accordingly, is it, for instance, making housing more attainable for low and moderate-income households a main concern?

- falling property prices? Is it considered an opportunity to renovate the building stock? Are the cities capitalizing it in any way?
- the slack housing market, and the role that government/privates can play?
- decreasing population heterogeneity and growing segregation in the city?
- cumulating social problems, as a consequence of several issues mentioned above?
- crime incidence? For example: is it a reality and an obstacle to good city marketing?
- death of social life, of public sphere, as a source of creativity and innovation?

Pursuing the goals and answering the questions stated above involve the acquirement of a number of documents and proceeding in a manner such as it is described below.

VI.1.2 Data acquisition

Land use and development policies are usually set out in the following types of documents:

- Municipal Master Plan: usually a comprehensive plan or, in some cases, simply a long range land use/zoning plan.
- Vision statements in Urban Development Plans, or less frequently in Detailed Plans.
- General statements in local or national building codes, subdivision regulations, urban rehabilitation programs, etc.
- Regional Spatial Plans, National Programs and Dossiers on relevant matters, such as the National Program for Spatial Planning Policies, and other pertinent documents from the Ministry for Environment, Spatial Planning and Regional Development (MAOTDR).

The full list of reviewed documents by geographical area can be found in Appendix C. The criterion is potential relevance rather than comprehensiveness and extensiveness. This diagnosis is organized into 13 sections. Each section represents a *characteristic/consequence* of shrinkage (e.g. "Population Decline"). The procedure consists in comparing the whole document against the *characteristics/consequences*. Ideally, we would judge the documents against best practices; however this is not possible because this field has not matured to a level that would allow proceeding as such. Three steps are taken to implement the diagnosis:

A. Listing the analysis/policy statements: The first column under each *characteristic/consequence* is marked ANALYSIS/POLICY STATEMENT. When there are analysis/policy statements in the reviewed document that address a particular *characteristic/consequence*, they are listed in this column, covering the most significant parts of the statement, including citations (e.g. "*PROURB*, Anexo 2, p. 4"). When there are no policy statements' in the documents reviewed addressing a particular *characteristic/consequence*, either positively or negatively, then "no statements found" is written.

B. Listing the goals and implementing code (if there is one): The second column under each *characteristic/consequence* is designated GOALS AND IMPLEMENTING RULES. In this column are listed whichever goals and/or implementing rules that address in any way each *characteristic/consequence* of shrinkage.

C. Evaluating the spatial planning instruments and policies: Once the first two columns are filled, each policy statement is evaluated according to two criteria: (1) did the policy statement demonstrate awareness of the *characteristic/consequence* under which it was listed; and (2) did the corresponding goals and implementing rules effectively support the policy statement, in the following manner:

- 1 – POOR, if the policy does not address or is at odds with the *characteristic/consequence*.
- 2 – RULES NEED IMPROVEMENT, if the goals and implementing rules do not entirely support the policy statements listed.
- 3 – POLICY NEEDS IMPROVEMENT, if the policy does address the *characteristic/consequence* but falls short of problem description and formulation.
- 4 – EXCELLENT if there is almost complete awareness of the *characteristic/consequence* in analysis/policy statements and the rules generally support the statements.

The diagnosis has obvious limitations caused by incongruity between the date of the several spatial planning documents, and between these and the occurrence of population decrease. The availability and the differences between the spatial planning documents are also a constraint to a straightforward content analysis. The rating is to some extent subjective, but helpful in getting an overall picture of the spatial planning instruments and policies, making out which statements demonstrate awareness of the *characteristic/consequence* or oppose it and whether the goals/implementing rules support or block the intent of the policy statements. Even though the content analysis is orientated in a way so as to answer the questions raised earlier in this chapter, these constraints can cause some disparity in the individual diagnoses related to the same content of the documents.

The reader should bear in mind that the diagnosis is not a description of reality; it is a report of the perception/awareness of reality. It was made a great synthesis effort, but detailed matrixes can be found in Appendix F. Figures 29, 33, 35, 39, and 43 are a quick visual representation of these individual matrixes. The next sections present a synthesis of the findings. In the end of the chapter before the summary, Figures 55, 56, 57 and 58 represent a comparison between cities and between regions and a synthesized comparison between characteristics/consequences of population decline in the studied cities and regions. These were obtained, using the individual ratings, through a simple average calculation.

V.2 Cities

VI.2.1 City of Barreiro

The Municipal Master Plan of Barreiro, from 1994, similarly to other plans from the same period, has a strong land use regulative or zoning nature, rather than a strategic character (Figure 30). It is mainly in the Program for Urban Rehabilitation of Old Barreiro (PROURB) 2008 that shrinkage related issues are equated. The documents mention population decrease, especially desertification/depopulation in Barreiro's old central area, and population aging that spills over to the municipality as a whole. However, the surplus of spaces and buildings and the slack housing market get the bulk of the attention in the planning documents. Old Barreiro is perceived as a degraded residential area (Figures 31 and 32). It is highlighted sharp deterioration of buildings and public spaces, loss of environmental quality and urban and architectural distinctiveness, social degeneration and economic decline – a “global loss”. Concerns go to high vacancy rates (housing and businesses), weak local economy, and loss of functional diversity, attributed to bad conservation state, small size and morpho-typological characteristics of dwellings (which do not meet modern living standards – unbalanced relation supply-demand), infrastructure paucity, and health and safety deficits. National factors such as housing rental policy and local/municipal factors, namely deindustrialization, are pointed out as drivers of these problems. Decreasing population heterogeneity, growing segregation – poor, inactive, illiterate or uneducated, and foreigners (namely Romany) – and (perception) of growing insecurity are worries. Shortage of public health and social support facilities sharpens social problems even more. All the above are seen as fostering a negative image that pushes current and potential inhabitants, causing the death of economic and social life.

There are relevant goals in the Urban Rehabilitation Detailed Plan of Old Barreiro, especially: protection of the built cultural heritage and rehabilitation of the buildings and the neighborhood as a whole, with special attention to notable buildings, housing stock and public spaces, to reinforce both image and urban environment, thus strengthening the “spirit of the place”; and promotion of the connection between the old center and the current center, to promote spatial cohesion and sustainability. Issues such as retrieving economic activities, stimulating urban voids' infill, incorporating sustainability and environmental quality criteria, and concerns with infrastructures, equipments, mobility and accessibility are also present. A significant acknowledgment is that, more than to develop new territory, it is important to improve the existing urban territory in which major investments have already been made – places with a strong cultural heritage presence but where only the most vulnerable remain. In

this sense, besides social support facilities for the elderly, it is argued that the needs of the young population have to be taken into account in a re-population strategy context. Quality facilities are considered as an attractiveness factor, essential for quality of life and social progress, for instance to combat situations of urban inequality and social exclusion. The reactivation of urban rehabilitation programs that encourage investment in Old Barreiro, in detriment of new developments, is sought for. Their symbolic value is seen as a contributor to the private sector's confidence, although it is recognized that they are not a panacea.

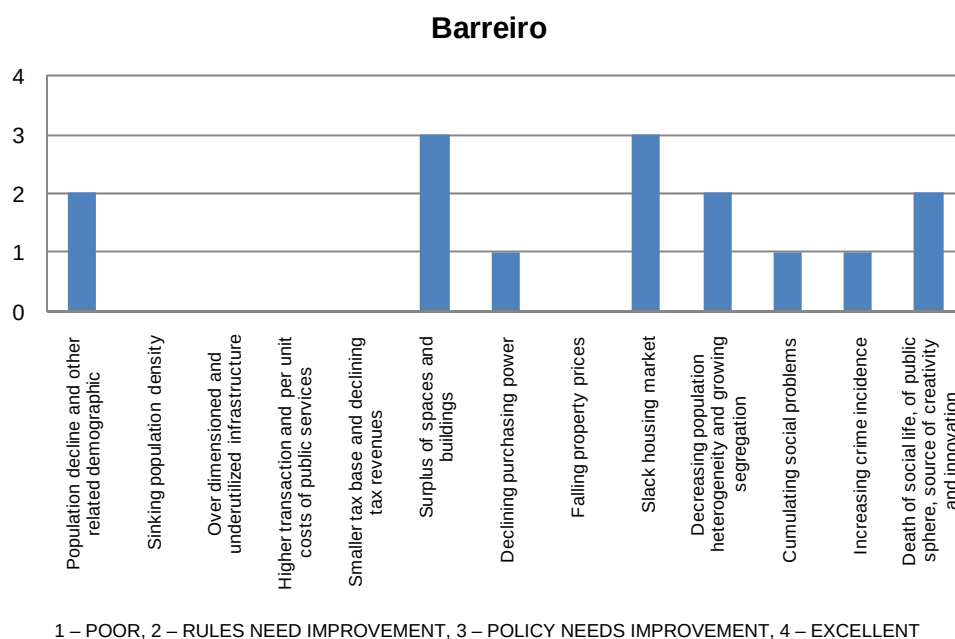


Figure 29. Synthesis of the spatial planning instruments diagnosis in Barreiro

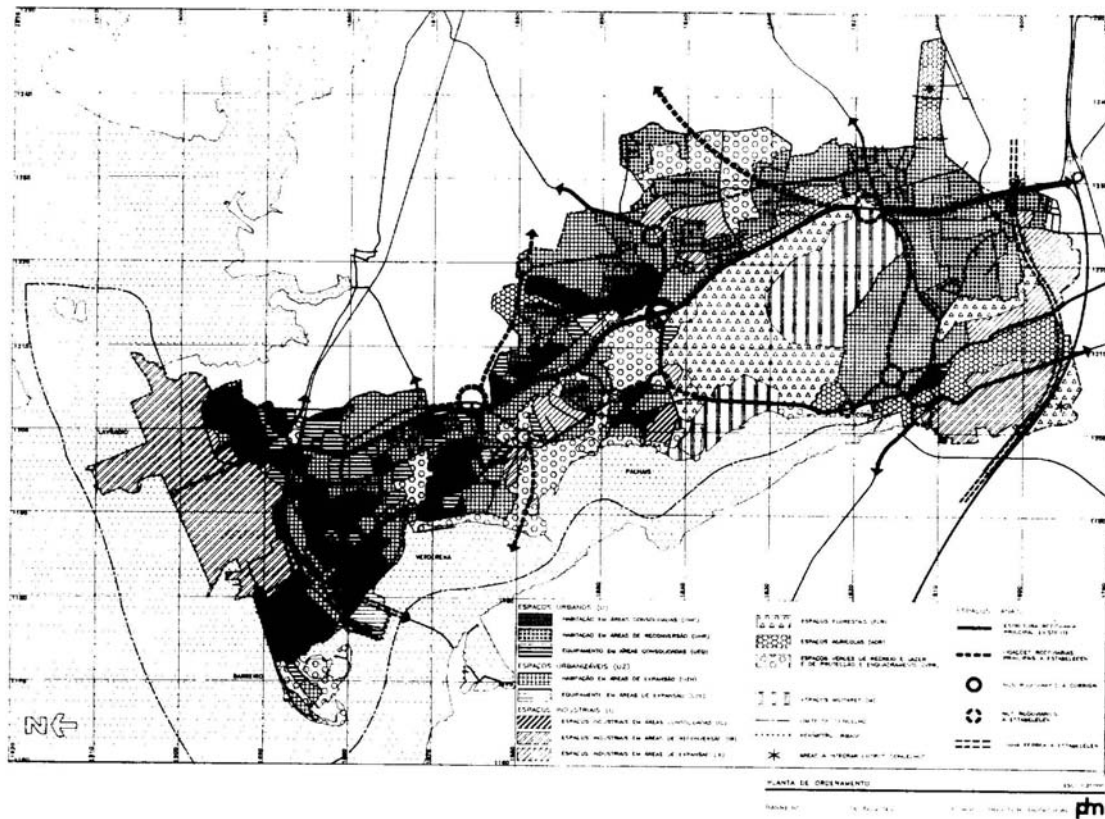


Figure 30. Municipal Master Plan of Barreiro: Zoning map

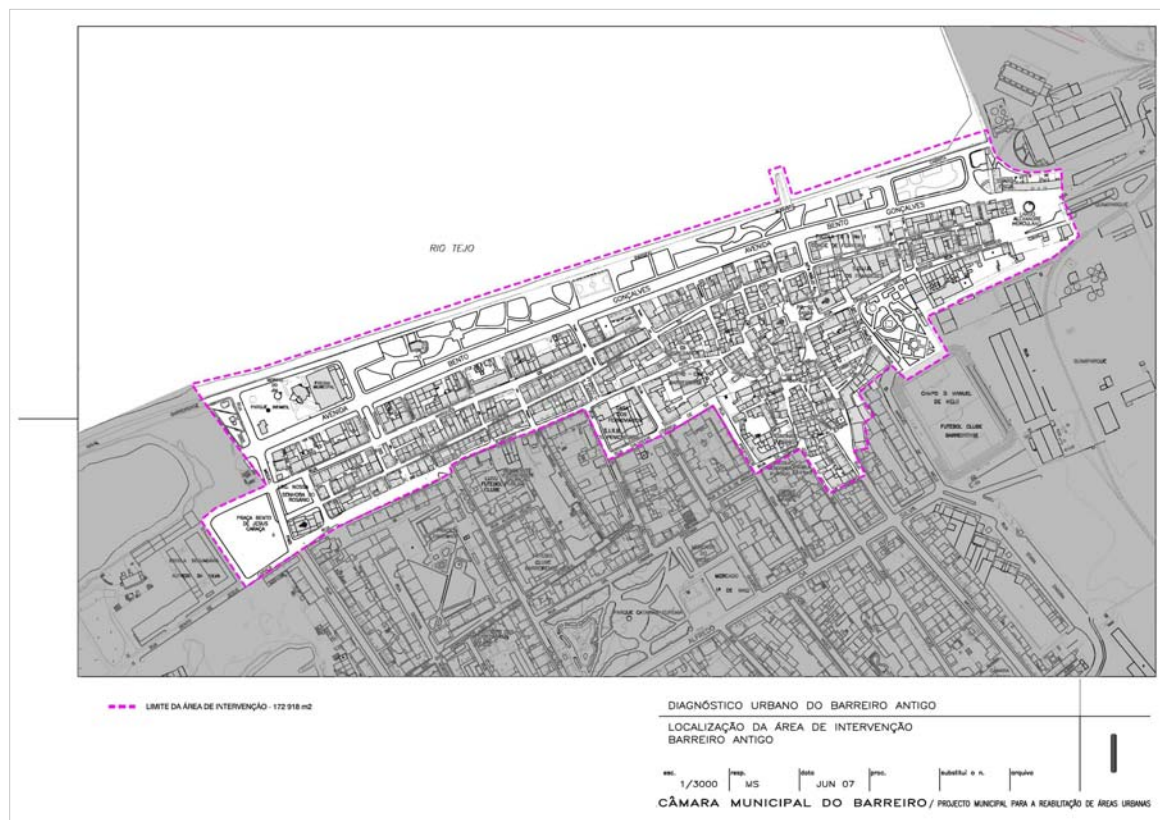


Figure 31. PROURB 2008: Limits of Old Barreiro

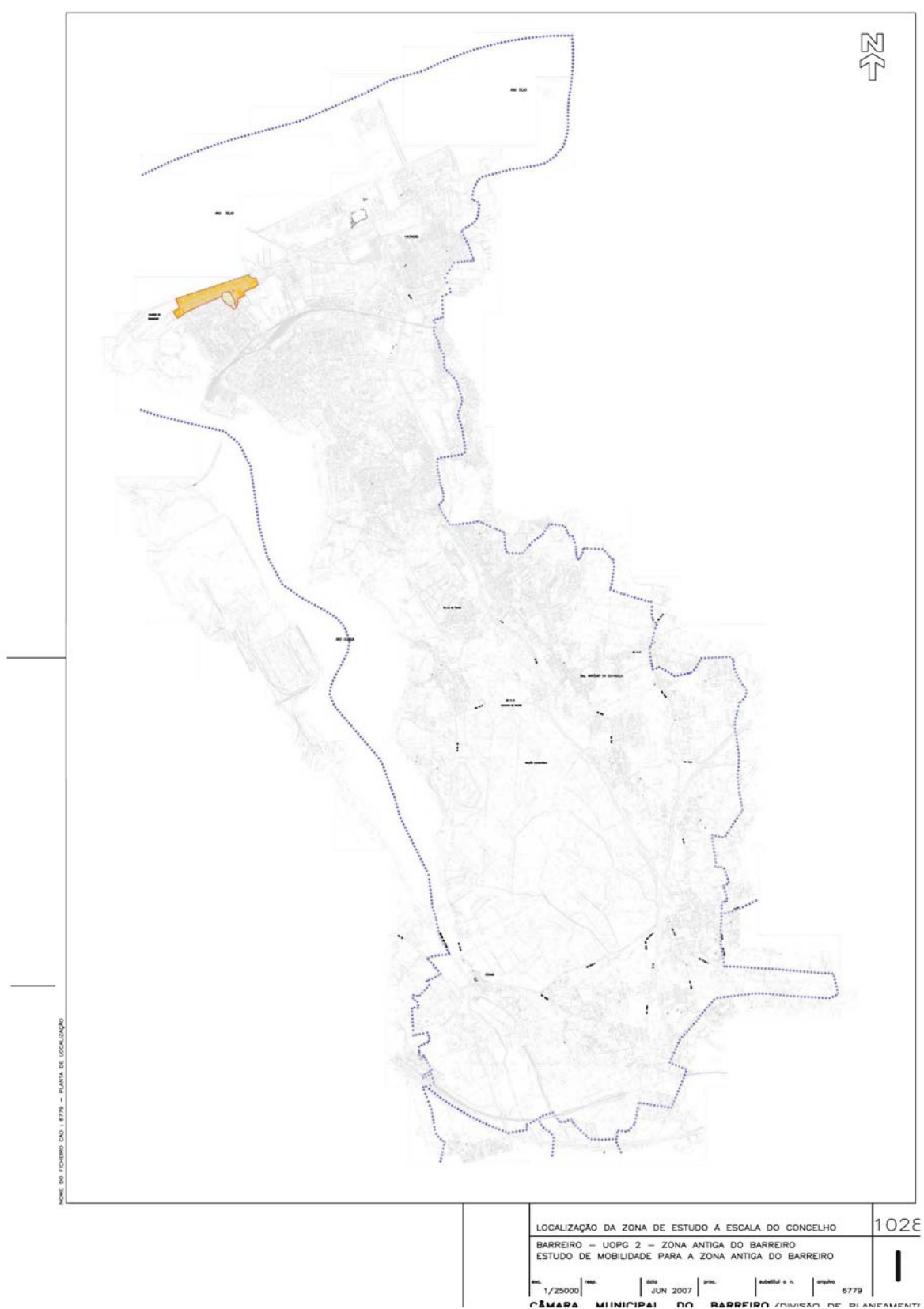


Figure 32. Mobility Study for the “Old Barreiro District”: Location of Old Barreiro in the municipality

VI.2.2 City of Espinho

In the Municipal Master Plan of Espinho revision is recognized demographic slowdown in the central core, in need of urban and environmental regeneration, versus its periphery in physical expansion disarray (Figure 34). The intentions of densification of secondary cores and infill of interstitial spaces are argued to have been largely unmet; instead it was recorded an increase of adjacent use of roads (Figure 35). It is also admitted a slight, current and future, demographic loss and population aging in the municipality, although spatially heterogeneous (more intense in the core), and still lower than in the city of Oporto. Moreover it is noted, that despite low average educational levels, both the working age population and the activity rate increased in the municipality. Population density is not generally a concern. Likewise, the core is described as a consolidated urban structure with a high population density and a high construction index. It is admitted that: there was relative generosity in the distribution of the right to build, namely over-dimensioning industrial perimeters; and spatial planning instruments were not helpful in channeling real estate investment to priority areas.

In the housing sector, specificities are said to justify greater care in defining strategies: the number of families and the housing stock grew; the surplus of dwellings rose and housing shortage decreased; over-occupation and dwelling sharing phenomena are a reality; and the weight of vacant and seasonal use dwellings increased – stressing some degree of market unevenness, chiefly in investment dynamics associated with supply-demand. Vacant dwellings are found significant particularly in the parishes with more construction thrust. On top of quantitative problems, qualitative problems, associated with housing equipment and infrastructure, are identified in the Plan. Furthermore, fast urban and population growth until the 1990s made access to housing more difficult, mainly for population with less resources.

The Plan gives emphasis to a set of trends, expectations and challenges whose central elements can be summarized in the following way: qualitative and quantitative demographic mutations; and importance of quality of life and sustainable spatial planning. Open questions are placed in the Municipal Master Plan of Espinho: How will the housing market respond to the demographic slowdown? And what repercussions will the overall improvement of accessibility have in the municipal housing sector? Nevertheless, the strategy is based on the concern of attraction to the Center and contention in the surrounding areas, opposite to former spatial planning logics. The articulation of the city with other cores and integration/infill of interstitial spaces are envisaged. Though intervention possibilities in the housing sector are thought of as limited, a complete set of recommendations is pointed out, divided in five groups: building actions, social and illegal housing, housing stock dynamic and mobility, land

market and municipal intervention mechanisms (Appendix F). At the social level, social support programs (integration, training, and employment) are promoted.

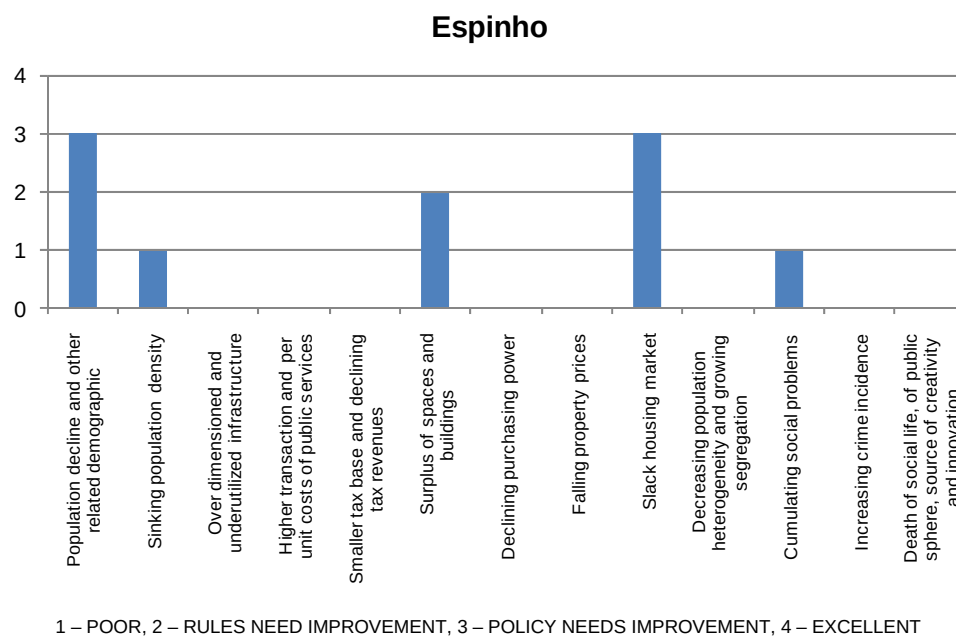


Figure 33. Synthesis of the shrinkage spatial planning instruments diagnosis in Espinho

VI.2.3 City of Lisbon

In Lisbon, population decrease is a growing concern, in particular in the historic areas – its reversal and population attraction and retention are considered fundamental and a strategic public interest (Municipal Master Plan and provisional version of the revision of the Municipal Master Plan; Figures 37 and 38). During the process of definition of the *Strategic Vision – Lisboa 2012* and revision of the Municipal Master Plan were compiled and edited several studies, whose analyses, conclusions and recommendations are described as fundamental to understand the city and develop a more coherent Plan revision proposal. These studies assert that density, human compactness and creative capacity have diminished, contributing concurrently to the development of a more disperse and less sustainable metropolis. Accordingly, population decline, affecting especially the young and labor force, had as a result: bottom up and top down population aging; degradation and depopulation of central areas; sprawl of dormitory towns and growth of low standard urban areas. In the studies it is stated that the sharp decrease of population led to population density figures relatively low for a European capital city. In the city of Lisbon as a whole, facility areas have a significant presence and dimension, but the issue of over dimensioned and underutilized infrastructure is not mentioned, probably because unlike residents, city users remain stable.

It is said that empty spaces have grown and housing supply has remained nearly unchanged. In addition, it is identified an important percentage of occasional use dwellings and found that the quantity of dwellings for sale seems to be higher than the real housing market needs. Moreover, it was detected a qualitative change in housing demand: there is now considered to be an unmet desire to live in Lisbon, due to lack of economically competitive housing supply. Regarding purchasing power, it is asserted that the current economic situation also contributes to the slack housing market as families refrain from investing. The studies sought to understand possible phenomena of segregation and territorial polarization between socio-economic groups, having concluded that these phenomena are not noteworthy. However, critical situations were detected in some areas of the city of Lisbon, security wise. Despite disruption in some sectors and management processes, it is argued that the city remains a vital place of identity, productivity and creativity. Quoting: «its different and diverse neighborhoods reiterate today's unique conditions for quality of urban life, where identity, culture, society and political values will strengthen in the future».

One of the urban goals of the Municipal Master Plan is the revival of the housing function, particularly in the center, containing tertiary sector, in order to attract and retain population. In this sense, it is considered important to improve/adapt the service level of facilities and

infrastructures to residents' and users' needs, especially in historic areas. Intentions include reviewing land use rules to maintain and promote residential areas (e.g. minimum percentage rule), encourage conversion operations through a diversified real estate promotion structure in consolidated industrial areas, and restructure/adjust inflexible real estate legal instruments. In these circumstances, it is assumed as fundamental a large scale rehabilitation campaign, integrating several aspects: cultural heritage recuperation; rental market increase; security in old depopulated neighborhoods; action against real estate speculation that includes vacant and degraded dwellings; and social cohesion. In general, it is considered necessary a series of sector measures, beyond housing policy, from urban policy to fiscal policy, in which partnerships between public sector, owners and/or private promoters play an important role.

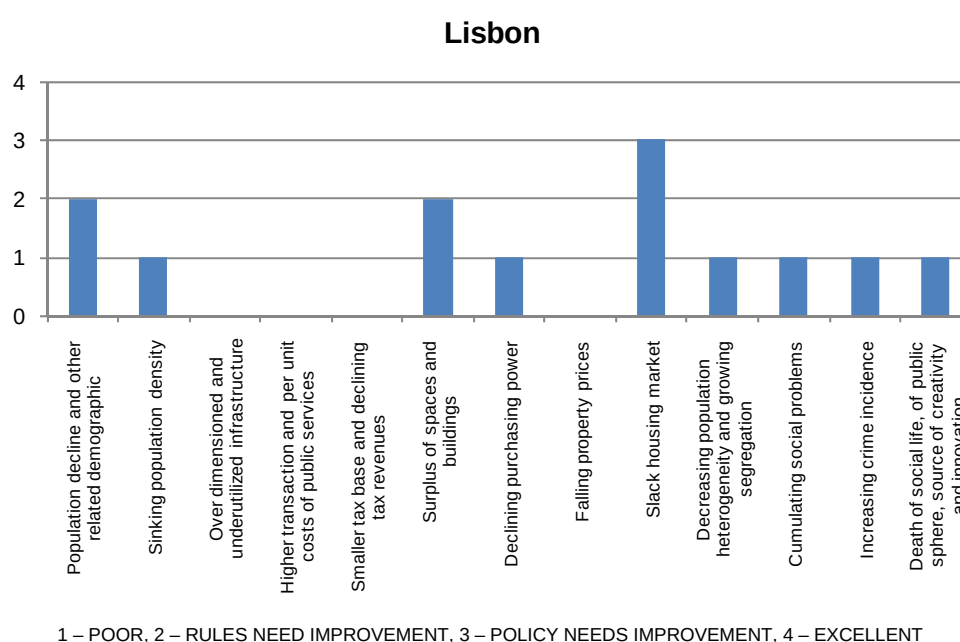
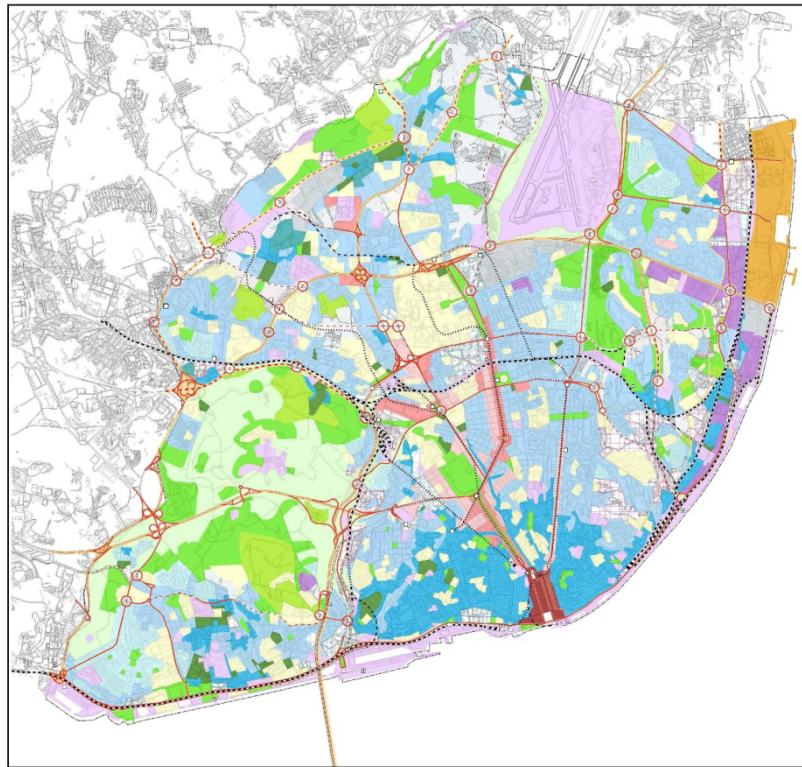
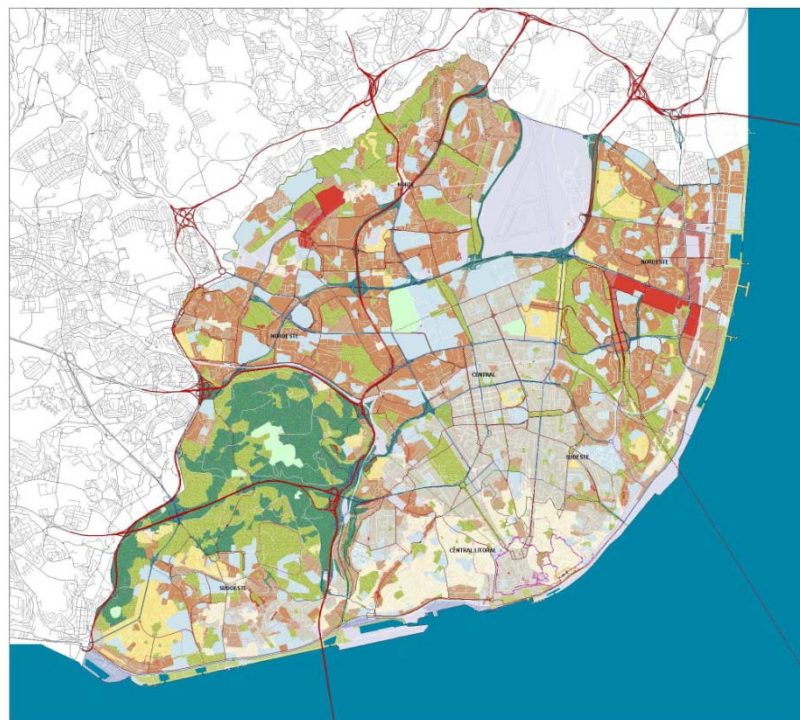


Figure 36. Synthesis of the shrinkage spatial planning instruments diagnosis in Lisbon



PDM de 1994 – Planta de Qualificação do Solo

Figure 37. Municipal Master Plan of Lisbon from 1994: Land use map



Revisão do PDM –Planta de Qualificação do Espaço Urbano

Figure 38. Municipal Master Plan of Lisbon revision: Urban space use map

VI.2.4 City of Oporto

In the city of Oporto, it is particularly the SRU Master Plan and the Historic Center Management Plan that address issues regarding the consequences identified with shrinkage. Nevertheless, the Municipal Master Plan also includes references to it (Figure 40). Together, demographic decline and population aging are considered the main development trends in Oporto which reflect the strong decentralization of the residential function to adjacent municipalities – more attractive and, mainly, affordable to reside – causing and/or caused by young population flight, tertiarization, negative natural increase and resettlement operations, promoted by local and central government. This phenomenon of depopulation is particularly detected in the historic center (without concerns) and in the Baixa District – considered heterogeneous. Sinking population density is not an issue in Oporto. It is noted that often buildings have a big human overload, affecting residents' conditions of habitability and comfort, harmful to the buildings' (infra)structures. Vacancies are mentioned and attributed to properties' medium or defective conservation state, deterioration/abandonment of buildings, difficult car parking and traffic, dirtiness, social environment degradation and even stigma, especially in the historic center. Despite it all, it is considered that the main difficulty of this territory is also its greatest virtue, because it contains a unique added value – the built heritage – when compared to its periphery competitors. From a social perspective, high unemployment and low levels of education are also mentioned for the historic center of Oporto (Figure 42).

The Critical Area of Urban Regeneration and Renovation has been continually extended in order to accelerate and make operational regeneration procedures (Figures 40 and 41). The goal is to re-populate, bringing new families, young and creative population, and new value-added businesses, retrieving social and economic capital – the confirmation of the historic center and the central area of Oporto as irreplaceable urban references in the metropolitan area. The solution is considered to be intensifying rehabilitation and revitalization of the center. For that, it is essential to respect its characteristics, its buildings, its people and their development model in the urban transformation process. Therefore it is regarded as necessary to act on the building stock, both in quantity and quality, without neglecting public space, urban environment and infrastructural networks, the housing market, public facilities and services, and proximity retail activities (bearing in mind environmental protection, rational energy consumption and technological innovation). It is also considered important to attract residents with various socio-economic standards. The Master Plan states that the mobilization of existing programs to support housing recovery is crucial, but that other policy measures are justified in critical areas (Appendix F). Regarding the housing market, several documents

suggest new housing policy, giving conditional support to owners and residents, and incentives for private investors, etc. The documents put emphasis on the (re)integration of resident population, promoting social development to combat segregation. In general, it is proposed reduction of urban asymmetries, fostering equitable distribution of public investment and strengthening social and territorial cohesion (e.g. controlled costs' housing). Renovation of social housing and achievement of high security standards are mentioned.

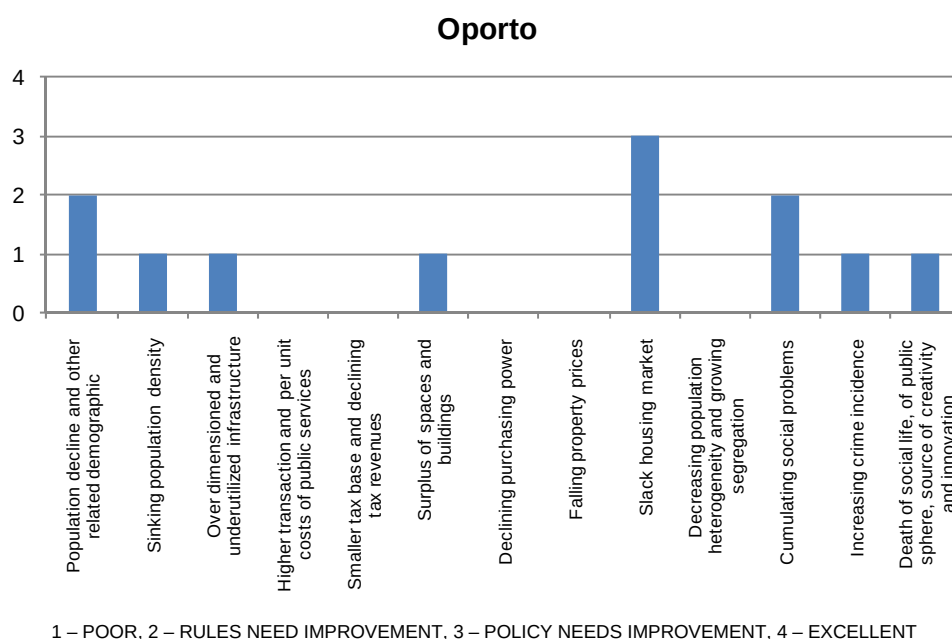


Figure 39. Synthesis of the shrinkage spatial planning instruments diagnosis in Oporto

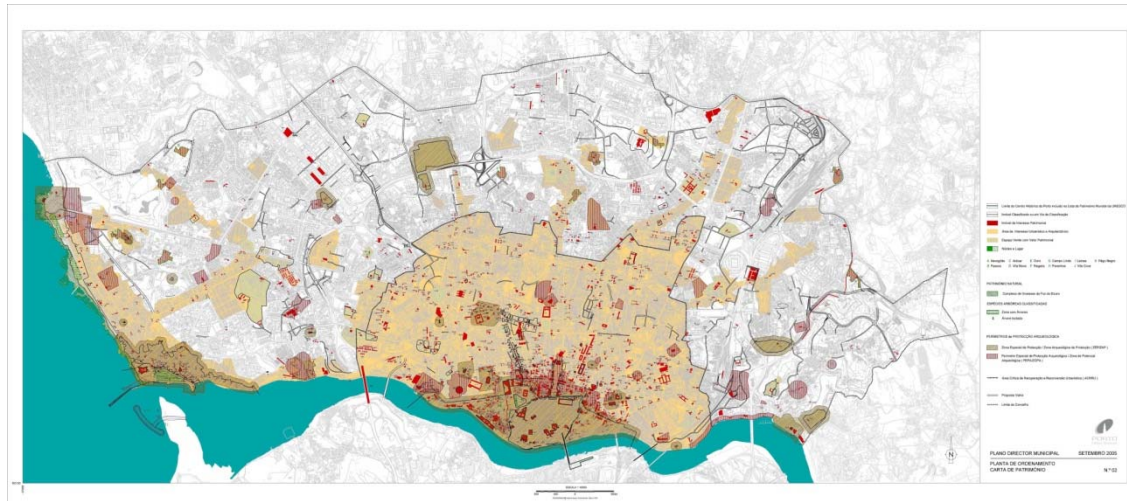


Figure 40. Municipal Master Plan of Oporto: Heritage



Figure 41. SRU Master Plan of Oporto: Administrative and intervention limits



Figure 42. Management Plan for the World Heritage Historic Center of Oporto: Intervention area

VI.2.5 City of Vila Franca de Xira

In the planning documents of Vila Franca de Xira, population decrease and aging are seen as a rural process and/or a central area emptying process phenomena, supported by the fact that despite that the number of households grew in the municipality (Figures 44 and 45).

In synthesis, several issues are pointed out as demographic threats both in the Municipal Master Plan and in the Strategic Plan, namely: slight decrease in the proportion of younger age groups and growth of older population; local employment supply-demand maladjustment trend; risk of inadequacy between demand and supply of facilities targeted at specific population groups (young and old); higher aging indexes in the most rural parishes; risk of disruption of rural communities by means of sprawl and greater demand for natural spaces; increase in residential mobility and implications. Population density is considered relatively modest, in the Metropolitan Area of Lisbon and Greater Lisbon context, but stabilized. Housing grew side by side with population. These dynamics are seen as a sign of the population attraction and retention capacity. However, housing is considered inadequate for population needs and available income; explaining discrepancies between vacant dwellings and estimated demand in Vila Franca. According to the Strategic Plan, pockets of old buildings in poor conservation state are a factor. In the context of the sub-region, the low levels of education are seen as a weakness. This is associated with the fact that Vila Franca de Xira has not been able to attract and retain more demanding population groups. Cultural and socio-economic stratification is considered as a weakness, causing difficulties to territorial cohesion and social integration. Additionally, growing buildings' density and inadequacy of spaces of sociability, deteriorating urban and social conditions, are seen as threats.

Hence, two of the main goals of the first revision of the Municipal Master Plan of Vila Franca de Xira are: creation of conditions for the settlement of new inhabitants in rural parishes, reversing the population decline/aging trend; control of urban sprawl in parishes further South, focusing on the creation of conditions for the establishment of new economic activities, which can generate employment. To attain these goals, the following Spatial Model principles are the most relevant: adjust and delimit urbanized areas according to the effective occupation or legal commitment; counteract urban expansion along the roads, where possible, through the interruption of urban perimeters (smaller agglomerations) or the implementation of urban ecological structure belts; correctly define the areas to develop according to development expectations and adjust them, releasing the waterfront of the excess urbanized areas previously programmed; redevelop industrial brownfields, taking advantage of Tagus' scenic qualities; define strategically located multiuse areas for logistics, business, scientific,

technological and research activities. The adjustment of urban perimeters to current and predicted population growth is often referred to. Overall, the challenge identified is to care for quality of life of residents, users and visitors. Measures include creation of support structures and initiatives to promote sociability, integration and participation, accessibility and mobility.

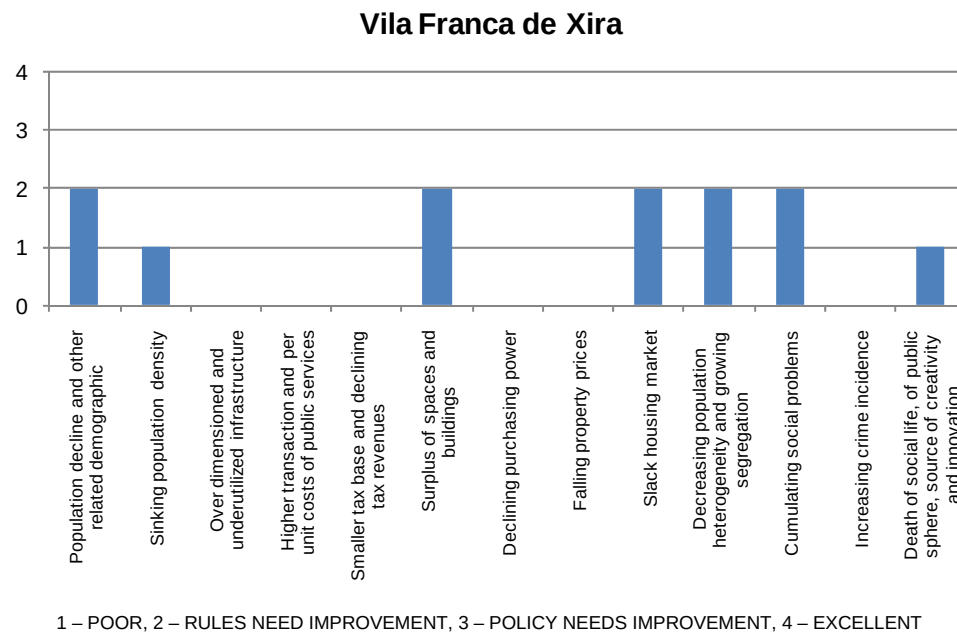


Figure 43. Synthesis of the shrinkage spatial planning instruments diagnosis in Vila Franca de Xira

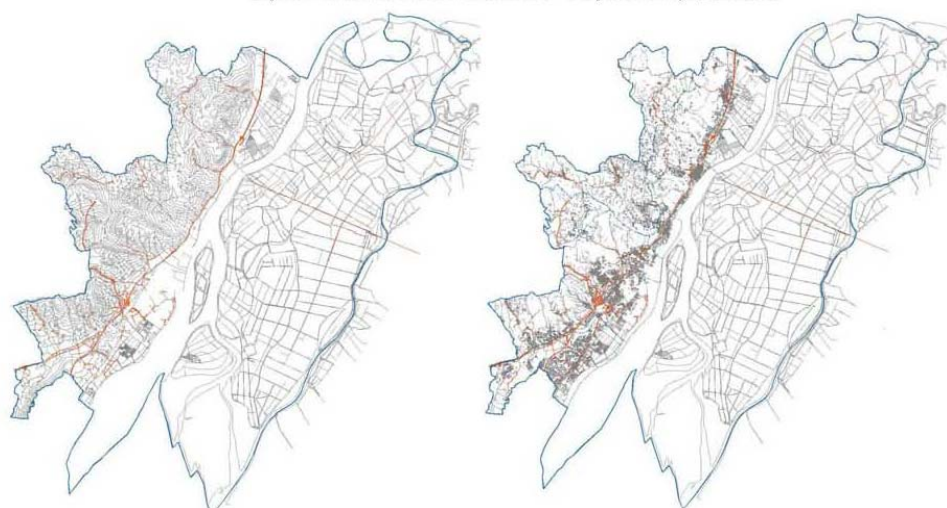


Figure 44. Municipal Master Plan of Vila Franca de Xira: Orographic and urban characteristics

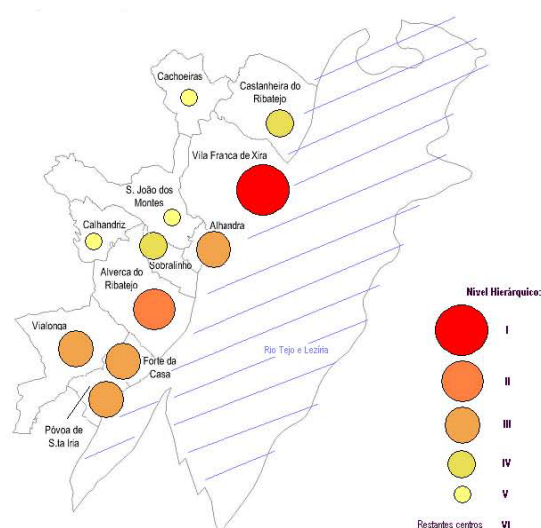


Figure 45. Municipal Master Plan of Vila Franca de Xira: Urban centers hierarchy, 2004

VI.2.6 Cities of Elvas, Lamego, Matosinhos and Tomar

Judging by the individual diagnosis matrixes (Appendix F), the municipalities of Elvas, Lamego, Matosinhos, and Tomar are the least aware of the shrinkage phenomenon. This can be partially explained by the nature and availability of their local planning documents. In addition, smaller cities such as Elvas, Lamego and even Tomar might not have enough spatial planning critical mass to originate a debate around the topic of shrinkage, or population decrease and its consequences. The fact that these four cities have negative population change rates as significant as the other cities (exception made to Lisbon and Oporto, which are particularly serious cases), allows us to assert that despite the first argument, this issue may not be on the top of these municipalities' spatial planning concerns and priorities.

VI.3 Regional Framework

VI.3.1 Alentejo

The Regional Spatial Plan of Alentejo gives significant attention to population decline, low population density and other demographic issues, accepting facts and trying to do the best it can with the available regional resources. Most of the remaining issues at stake do not appear to be significant concerns in the planning documents analyzed for this region.

One of the strongest trends/challenges identified in Alentejo is large demographic decline, as a result of increasingly low fertility levels and rural depopulation, due to urban concentration. The urban system is defined as a large group of small economic and social centers, with urban areas in demographic regression. Economic and social devitalization of small rural areas is attributed to abandonment, unemployment, aging, and implicitly migration of (young) population and services to urban areas. Loss of residential and economic functions of historic cores, accompanied by (unplanned and low quality) growth in the peripheries, is seen as an emerging demographic trend in Alentejo. In some larger centers, urban expansion created open interstitial spaces that limit growth. It is also noted a pervasive reduction in population density, exception made to the urban centers (Figures 46 and 47).

The vision and goal for the region of Alentejo is that of a sustainable territory with a strong identity, supported by a polycentric urban system (with municipal capitals as structural nodes), ensuring adequate levels of territorial cohesion and reinforced (inter)national integration and geo-strategic positioning. This sustainability relies on the development of endogenous resources, namely natural, landscape and heritage values/assets; and on the development of strategic coordination/cooperation levels, capable of generating opportunities and activities and effectively responding to possible environmental and social risks. The challenge is to consolidate territorial cooperation and inter-municipal association practices in promoting development policies in equipment and services provision – to ensure greater rationalization of human and physical resources and reinforce social and territorial cohesion.

It is considered essential to maintain and develop local communities and ensure equitable access to public goods, services and equipment, taking into consideration the elderly, children and users with reduced mobility. In this context, special attention should be given to accessibility and provision of public transport and the development of mobile, ICT supported and or multi-services (job search, health, justice, education and training, social assistance and other public services), capable of guaranteeing social cohesion and social and economic competitiveness, allowing for a proper balance between rural and urban areas. Adopting strategies to prevent sprawl phenomena, to improve urban expansion and promote

agglomeration, cooperation and complementarity is considered important in this view. Resource management and sub-regional specializations are crucial for the sustainability of low density territories, through multifunctional and/or thematic networks (e.g. heritage cities). Both the economy and urban consumption are described as dependent of public transfers. Consequently, in the resource synergy strategy described above, inter-sector partnerships between local and central government, public and private promoters, are considered vital.

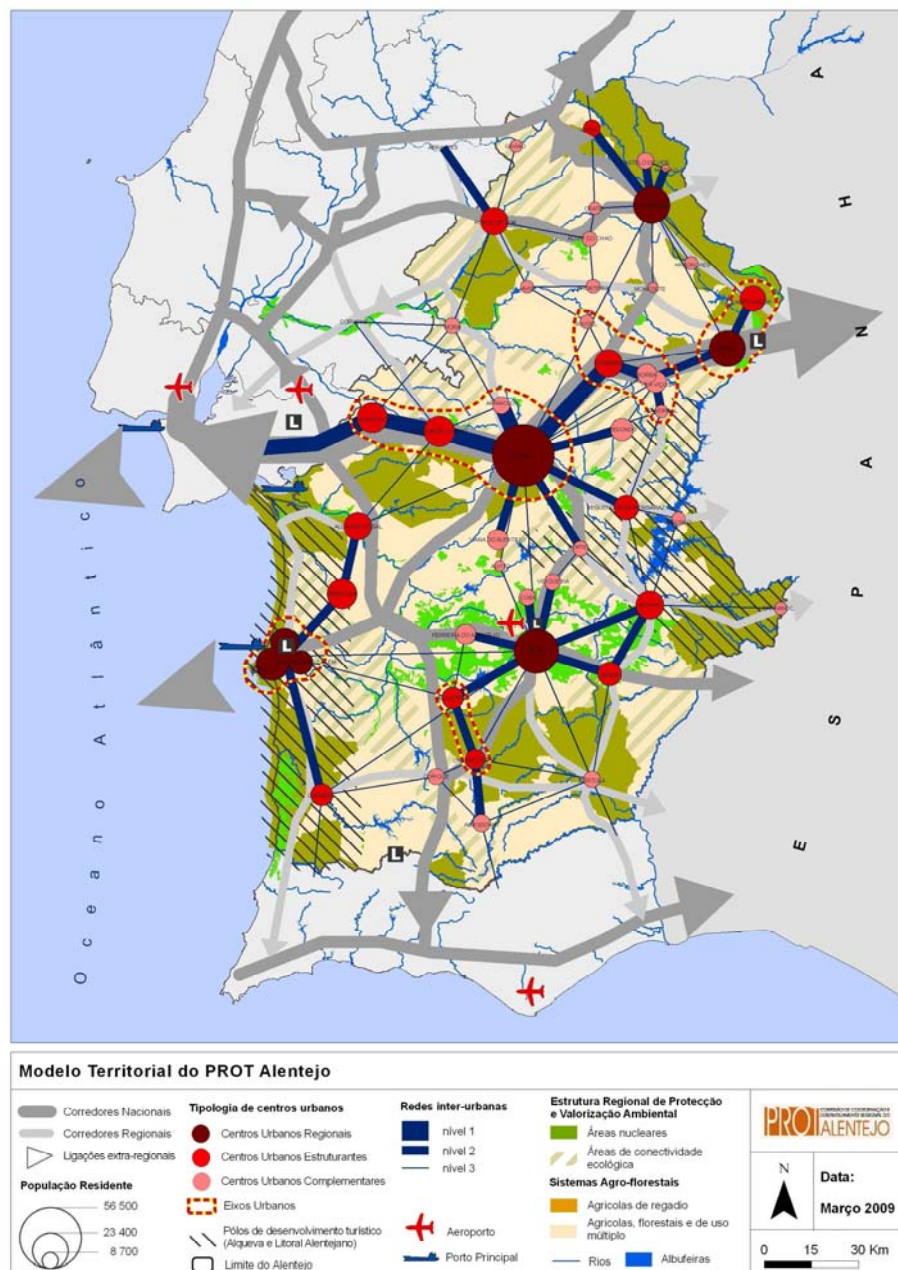


Figure 46. Regional Spatial Plan of Alentejo: Territorial Model

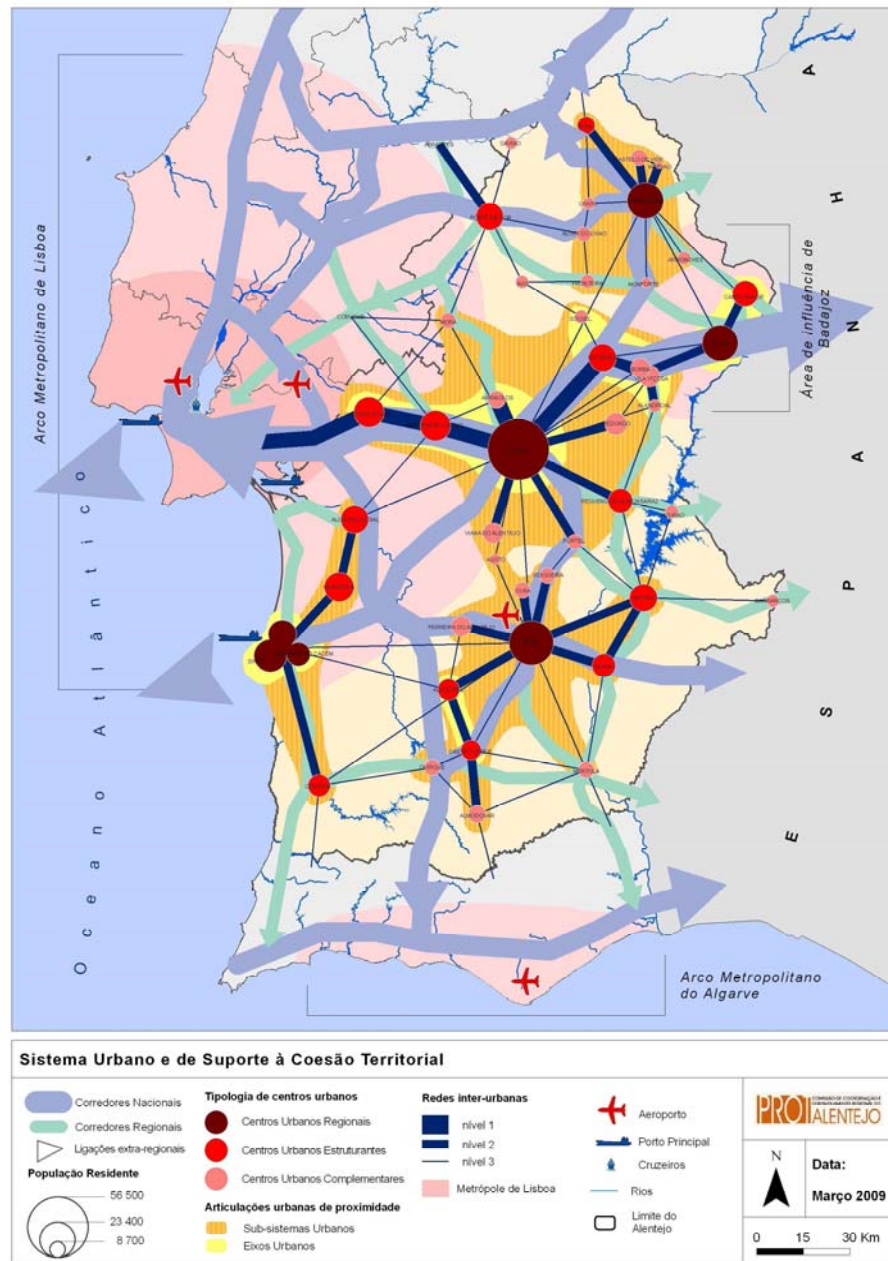


Figure 47. Regional Spatial Plan of Alentejo: Urban and Territorial Cohesion Support System

VI.3.2 West and Tagus Valley

The Regional Spatial Plan of the West and Tagus Valley does not identify population decline as a problem; but it is noted that some municipalities have been gradually losing population. Other demographic issues are seen as relevant. The region's settlement structure is described as a set of sprinkled urban clusters with different morphologies and densities (Figure 48). Aging and low population densities in rural areas are diagnosed as weaknesses in the Plan. On the other hand, this trend of depopulation and abandonment of low productivity agricultural and forestry areas is said to result in an increase in the occurrence of fires, and landscape and environmental degradation. Furthermore, labor force aging (with weak regeneration capacity) and low education levels jointly with a growing unemployment rate are stressed as significant trends in the region.

It is admitted that, in most cases, clustering, infill and interrelation, specifically between infrastructure and building, have not been promoted. In addition, proliferation of residential areas with low population density and decentralization/dispersion of equipment/services areas are considered a threat as they hinder economically and financially sustainable public transport. It is acknowledged that along with development pressures emerge vacant accommodation (which the market can no longer use), degradation of the old and/or historic city and distortion of urban peripheries. It demonstrates, according to the Plan, a great imbalance between housing supply and demand. Dynamics associated with expansion of residential areas or re-location of space consuming activities, resulting in a low quality and characterless periphery, are seen as threats. The diagnose of the Plan states that these and other dynamics can result in homogeneous social behaviors and values – threats to cultural identity of rural areas – and weak family and neighborhood unity and solidarity ties, leading to the rising of (usually urban) social problems.

In a micro territorial scale, two contrasting settlement patterns are suggested as future scenarios: dense polycentrism, organized around a group of relatively dense and mixed-use centers; or extensive polycentrism, with several isolated settlements, usually single-use, low density, with greater environmental costs (Figure 49). It is considered necessary to rethink the equipment and services network to retain population, particularly young, pulled by residential attractiveness and by local employment opportunities. There are projects/actions directed to low density areas, namely: increasing the number of mobile health units; broadening the range of collective services of public interest supported on the Internet and on the use of ICT, in the fields of health, education, social services, culture and administration; and developing e-Government, ensuring access to all.

Regarding urban development, it is asserted that an effort should be made to bring housing supply closer to demand, combining local policy with market forecasts and establishing housing as a dominant use in the city. The Plan has as a goal to define guidelines and propose measures to counteract (sub)urbanization and diffuse urban development. One of the Plan's fundamental guideline for territorial and functional organization is contention, proportionality and programming of urban areas: adjust urban land zoning (structure and size) to existing and forethought needs, considering the different types of demand in terms of housing, economic activities and other urban functions and ensure its full implementation. To prohibit isolated housing buildings in rural land, with few exceptions, is also a guideline in the Plan. The adoption of energy-environmental efficiency measures in the building stock, with focus on social housing and rehabilitation is encouraged.

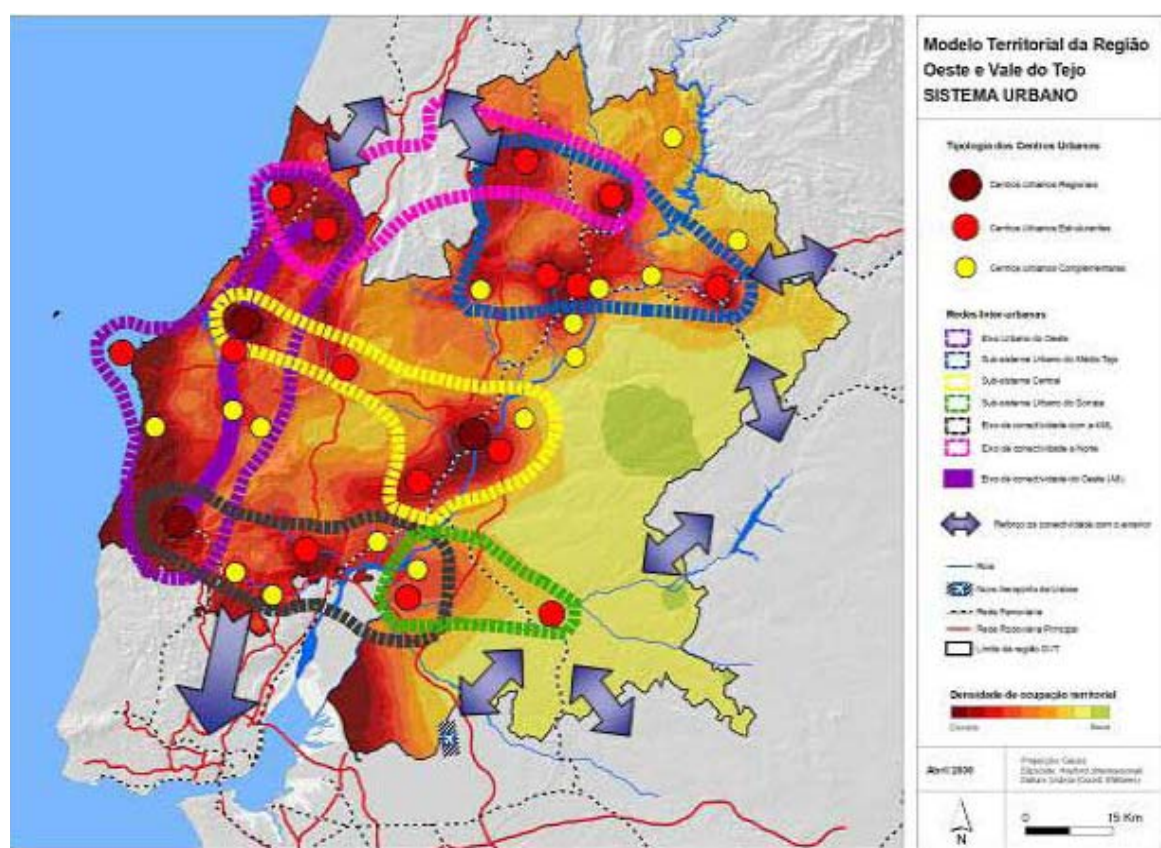


Figure 48. Regional Spatial Plan of the West and Tagus Valley: Urban System

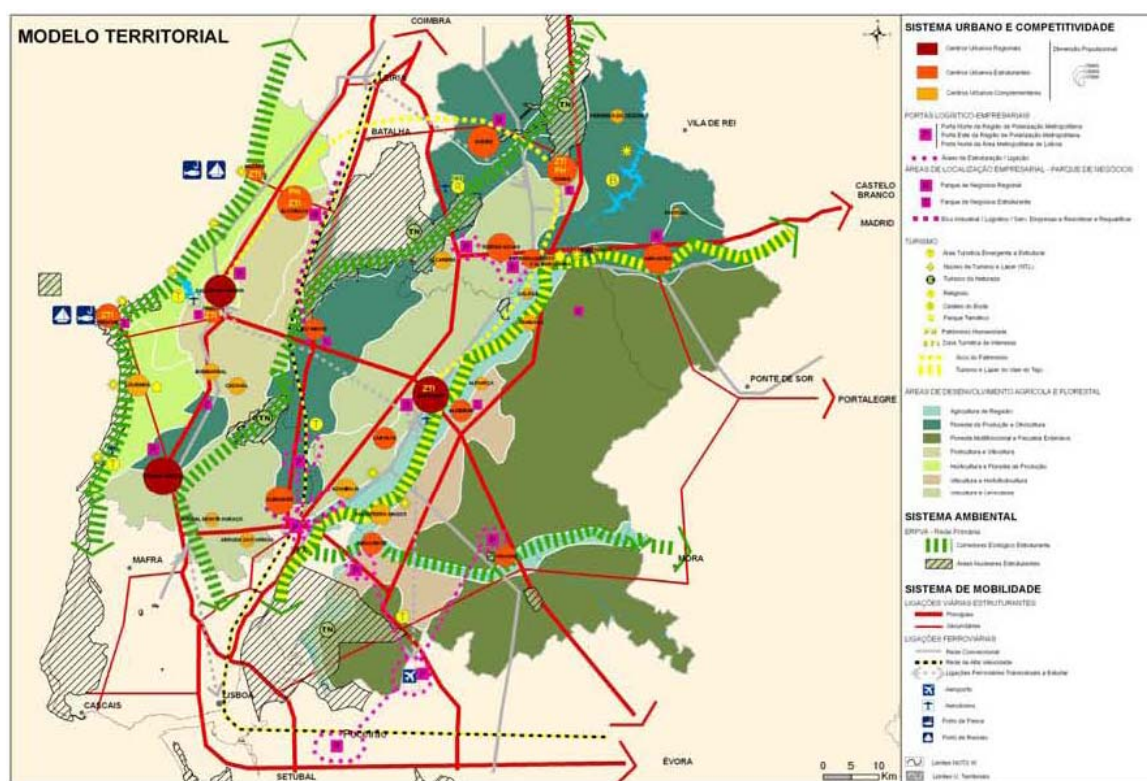


Figure 49. Regional Spatial Plan of the West and Tagus Valley: Territorial Model

VI.3.3 Northern region

The Regional Spatial Plan of the Northern Region is especially concerned with degradation in urban areas and population decline in rural areas. The main demographic trends mentioned in the Plan are: a very slight resident population decrease (stagnation) in the short-term; and a significant population loss in the long-term, and above all a noteworthy population aging. In the Northern Urban System (Figures 50 and 51) is identified an inland low economic density territory (Trás-os-Montes and Alto Douro) depopulated and impoverished, with a strong environmental and tourism potential and a low urban and infrastructural density. It is pointed out that in the urban region of Oporto emerges a consolidated central area, whose dynamics suggest tumbling demographic and economic density processes, which usually characterize the transformation of the traditional city. The physical state of degradation of the built heritage is part of the concerns expressed. It is stated that the crisis in the central city was

joined by the crisis in the traditional retail sector and the relocation of services, causing more unemployment, population loss and urban degradation, in a spiral of decay. In agricultural/forestry rural areas, population dynamics are reported as being in constant regression, featuring an aged population. These internal and external migration movements, leading to a sharp population decline in rural areas, with labor force and young population flight to cities, coastal areas and abroad are considered onerous – unless employment and other attraction mechanisms are implemented, taking advantage of the local productive base.

The Plan stresses different realities and problems: planning deficit and excessive urban growth and sprawl, largely due to: strong speculation in coastal landscapes; and continuous population decrease, abandonment and change of land exploration systems in inland landscapes. There are “intermediate” areas, where urban settlements are not sufficiently infrastructured and have low attractiveness. The Plan reports some level of decline in purchasing power in the North region. Regarding the urban system, regeneration of central areas is considered a challenge in the Plan. Aspects as diverse as structuring the metropolitan ring, strategic planning, strengthening of compactness or polycentrism and multi-functionality, reinvention of the urban-rural relationship, and improvement of diffuse urban development are highlighted throughout the Plan. The Plan finds that operations that promote densification of urban fabric and consolidation of urban subsystems should be encouraged. As regards new infrastructure, it is considered necessary to develop an anticipatory land policy and to implement restrictions in the most peripheral and less urbanized areas. Public investment should be limited by these needs.

Concerning housing, it should be highlighted: containment of perimeters – land economy; and balance of supply-demand in urban development, i.e. making housing policy and housing market forecasts compatible; give special attention to less affluent local demand; rehabilitate degraded urban areas (promoting buildings’ rehabilitation and voids’ infill); integrate new developments for lower income in previously urbanized areas; and use *unidades de execução*/operative units to streamline the land market. The Plan states it should attempt to fight demographic and socio-economic regressive trends that threaten social and territorial cohesion and to ensure the maintenance of minimum levels of territorial occupation and equity in access to public services/facilities. Thus, the Plan wishes to find solutions for a major challenge: being attractive, competitive and just. Going more into detail, two sets of measures are promoted in the Regional Spatial Plan: (1) development of endogenous resources (namely agro-forestry); and (2) integrated service networks and ICT initiatives; especially in low population density territories/rural areas (Appendix F).

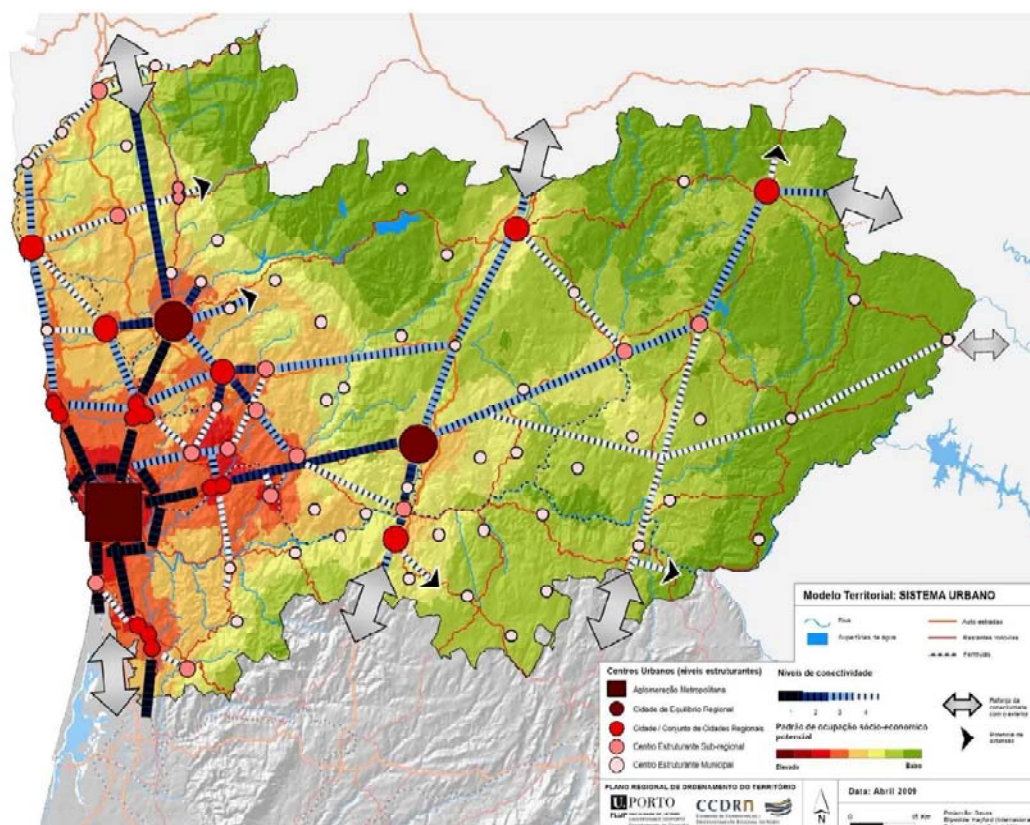


Figure 50. Regional Spatial Plan of the Northern Region: Urban System

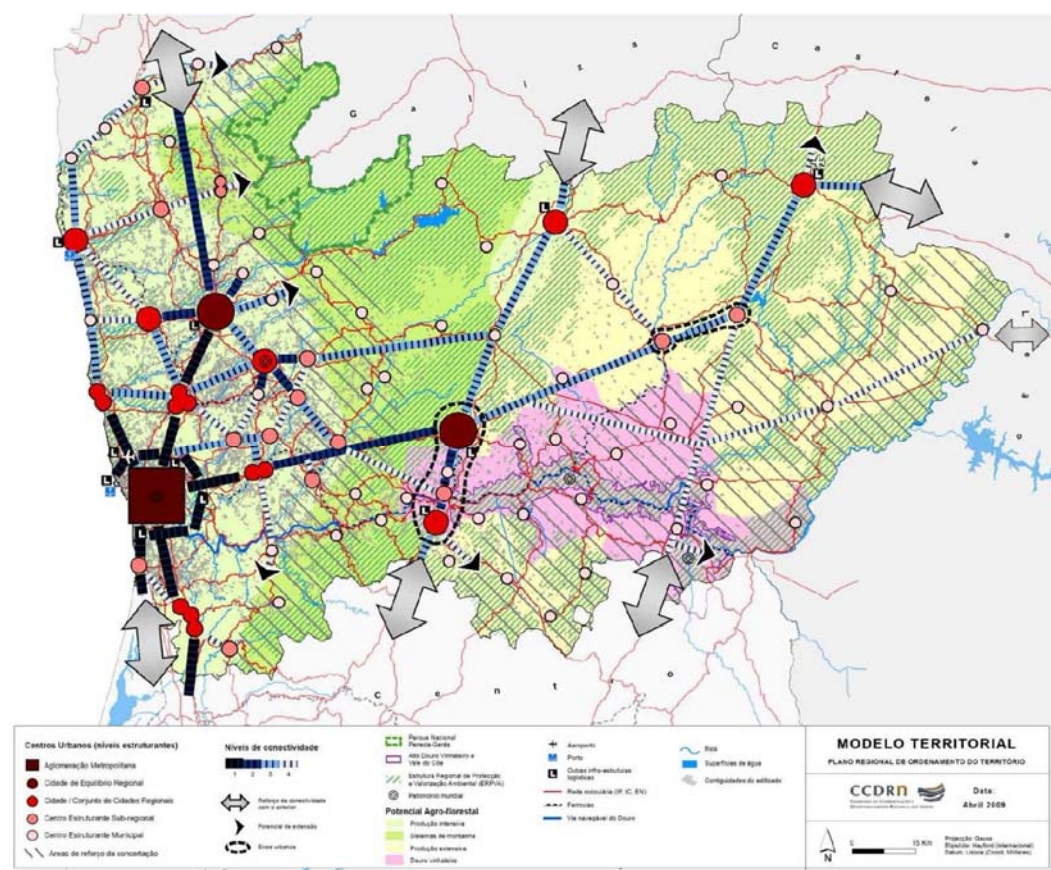


Figure 51. Regional Spatial Plan of the Northern Region: Territorial Model

VI.3.4 Metropolitan Area of Lisbon

In the Regional Spatial Plan of the Metropolitan Area of Lisbon is acknowledged that since the 1980s the metropolitan area's attractiveness has decreased considerably, which associated to low fertility, slowed down population growth. Nonetheless, it is noted that it still grew at a faster rate than that of the country and that of the Lisbon and Tagus Valley Region, reinforcing its relative demographic weight. It is identified a North-South divide: while the former has been losing population, presenting the highest percentage of elderly, aging index, old-age dependency index, and the lowest percentage of young people and young-age dependency index (mainly due to the municipality of Lisbon); the latter continued to grow. It is asserted that in Lisbon and in more (rural) distant municipalities, the proportion of older people tends to increase, together with the demand for elderly support services. The projection model assumes: progressive metropolitan population aging, high concentration of immigrants (more than 80%) in the North, in detriment of the city of Lisbon; reversal of young population decrease, due to reduction in infant mortality and an increase in fertility (although below replacement level). For internal and external migratory movements it is forecasted either stability or matching decline in inputs and outputs. The Regional Spatial Plan forecasts that several municipalities will face demographic loss until 2010.

As regards the pattern of occupation of the territory, the Plan highlights the following trends: population loss in the center in parallel with strong growth in other parts of the metropolitan area, mainly in its neighboring municipalities – suburbanization or periurbanization. The metropolitan center of Lisbon is described as: a central area that encompasses the historic center, where there are areas with serious problems of depopulation and retail decadence; low standard and degraded areas and axes, mostly linked with historic neighborhoods, industrial and logistic districts and social housing areas. Two relevant types of spaces are identified regarding dominant change trends and dynamics. The *problem spaces* include fragmented and unstructured peripheral areas with low urban and environmental quality; and central areas with population and activities loss, denoting a sharp urban decline and strong degradation processes (e.g. Lisbon central area or *Arco Belas-Bucelas/ Arch Belas Bucelas*). These are extensive areas in which trends will be difficult to reverse in the short term. The *areas with potential for conversion/renewal* are marked by obsolete or deactivated occupation; their location and size create conditions for new metropolitan centralities, for instance with the installation of dynamic and innovative activities (e.g. Quimigal – Quimiparque).

It is stated that the AML has the lowest population density within the metropolises with more than one million inhabitants and that Amadora and chiefly Lisbon have become less attractive over the years (despite the high density). Low densities in certain corridors are considered as

a result of a policy which favored individual motorization without matching public transportation. Particularly important is the realization that current local finance structure induces urban expansion, through urban subdivision operations, for the financial revenues from levying taxes; albeit in the long term, these interventions can involve costs for which there are no foreseeable resources available. It is noted that in some municipalities, with high purchasing power indexes, there are strongly degraded areas, mainly inhabited by disadvantaged population and “risk groups”. The municipality of Lisbon is given as an example of this socio-economic inequality.

In what regards the housing market, it is simply remarked that housing growth rate was much higher than that of population, especially in the North. More specifically regarding surplus of spaces and housing, it is found that economic changes have created industrial brownfields (e.g. *Eixo Sacavém-Vila Franca de Xira/ Axis Sacavém-Vila Franca de Xira*; Figure 52) and that even new residential developments, often a response to low purchasing power demand, reveal low quality indexes caused by tangled land use and lack of integration in the urban fabric (e.g. *Eixo Amadora-Sintra/ Axis Amadora-Sintra*). Despite efforts made, it is argued that reduction or reversal of the socio-spatial segregation phenomena that push out population towards the periphery is not yet visible. There are also housing pockets, architecturally poor, very congested and ill-equipped/infrastructured, which constitute social exclusion ghettos (e.g. *Arco Ribeirinho Sul/ South Waterside Arch*). If truth be told, slum housing and/or critical neighborhoods, which reflect socio-economic segregation, can still be found in (the North of) AML, chiefly in Lisbon and Amadora, exacerbated by the large presence of ethnic minorities. According to the Plan, the AML accumulates all the factors of social exclusion, strong asymmetries, territorial fragmentation and even poverty (Appendix F).

The territorial strategy devised for the AML aims to “sustainably” revalue its core, the city of Lisbon and the Tagus estuary respectively, as an anchor for Greater Lisbon and a central space of the metropolitan structure, correcting urban and social inequalities (Figure 53). This strategy searches to counter low quality suburban growth and land speculation in the coast. The Plan proposal aims at promoting the improvement of living conditions and urban quality – socio-territorial cohesion – in particular in degraded/socially deprived urban areas, peripheral/suburban areas and historic centers. The implementation of the strategic guidelines is based on several measures (Appendix F). In Lisbon, the notion is that the trends can be changed in the light of: the city’s role; social housing programs in Lisbon; and metropolitan urban and socio-economic development. It is argued that the trend in Barreiro will only be reversed after total redevelopment of the area of Quimiparque, as well as with the introduction of new accessibility conditions. Supply of quality social and cultural facilities is

thought of as important for retaining population and strengthening some metropolitan centers. In addition, it would allow for growth and diversity of job opportunities and relocation of employment centers in the AML. The Plan considers the municipality of Barreiro as a preferential location for polytechnic education institutions, looking to meet educational needs and to stop population from leaving.

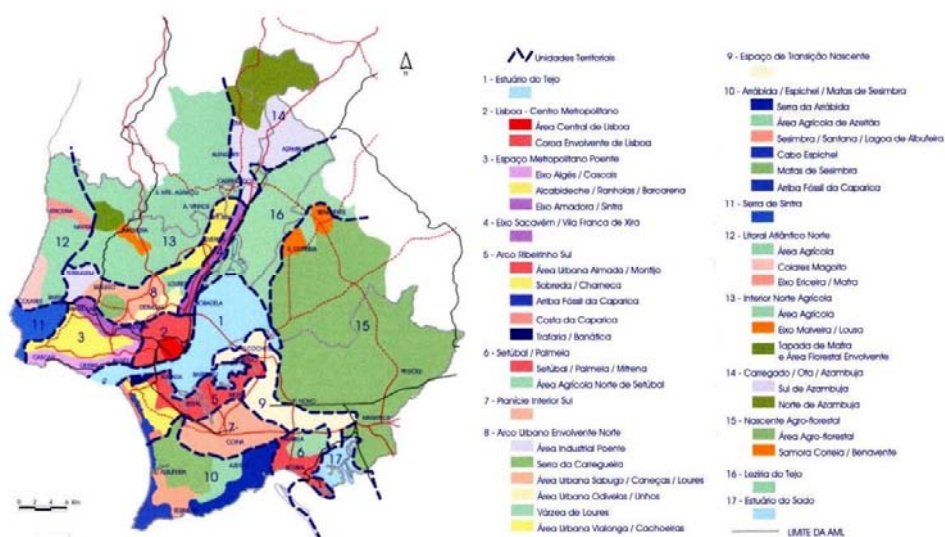


Figure 52. Regional Spatial Plan of the Metropolitan Area of Lisbon: Territorial Units



Figure 53. Regional Spatial Plan of the Metropolitan Area of Lisbon: Territorial Model

VI.4 National Framework

At the national level, especially in the National Program for Spatial Planning Policies (PNPOT; Figure 54), in the Strategic National Reference Framework (QREN) 2007-2013, and in the Framework for the Integrated Management Strategy of the National Coastal Zone (BEGIZCN) it is acknowledged the existence of ongoing and future population decline and other related demographic issues, but highlighted their regional and rural-urban unevenness.

The decrease in absolute number of inhabitants, and the increasing maturity and aging of population, caused both by declining fertility/birth rates and increased life expectancy are mentioned, albeit safeguarding the Portuguese' figures similarity to the EU-15 average. It is argued that the new immigration wave mostly corresponds to a population with demographic characteristics also close to the EU-15 model, whereas Asian immigrants rapidly converge to Portuguese low fertility and mortality levels. It is stated that Portugal's peripheral condition (geographical, economic and political) underpinned by EU's eastward enlargement can contribute to further aging and to make a strong demographic decline scenario come true. Accordingly, recessive demographic dynamics and even depopulation are a concern and are identified as threats, although typically in inner regions and in contexts of very low densities. It is also reminded that the structure of the urban system is one of the biggest obstacles to territorial competitiveness, in a context of significant inequality in population distribution. Furthermore it is recognized that, in many areas, urban growth mirrors more rural emptying than sustained regional growth patterns. The QREN emphasizes that unplanned urban growth has contributed to depopulation of the Interior and to a fragile and inefficient urban network.

From a slightly different perspective, the BEGIZCN identifies differentiated realities, ranging from rural areas under the influence of urban areas or aligned along the road network to more marginal territories, which correspond to diversified demographic and functional situations. It considers growing depopulation as a threat for areas with special interest for conservation since it is a limiting factor for its management. Population regression problems are considered serious in many of the classified (usually peripheral) areas, because landscape and cultural continuity of these regions is threatened by their abandonment, in the medium term. The Green Paper on European Territorial Cohesion, hereafter Green Paper, interconnects population decline and low population density with economic decline, namely GDP, although mentioning the overall context of stability. Low density, peripheral condition and structural problems such as dependence of primary industries, which coexist in certain regions, are considered a cumulative barrier to development. However, it is reminded that, in the EU, the concentration of economic activities is higher than that of population and its distribution pattern is more uneven than that of agglomerations. Plus: if, on the one hand, the former

delivers economies of scale, on the other hand, it has costs like congestion, high real estate prices, social exclusion and pollution, etc.

At the national level, it is not made a clear association between over dimensioned and underutilized infrastructure, higher transaction and per unit costs of public services, a smaller tax base and declining tax revenues or surplus or vacancy of spaces and population decrease. Regarding vacant and derelict land it is pointed out, in QREN, that despite the fact that extractive and industrial activities and sites are in decline or have been abandoned for a long time, it has not always been easy to make private or public organizations accountable for its recovery, mainly due to the fact that the legal framework for environmental recovery of these sites only began to be clarified in the 1990s. On the same matter, *Projecto Arco Ribeirinho Sul/ South Waterside Arch Project* – a group of urban development studies – focuses on a vast territory, including public land, which corresponds in general to obsolete industrial areas or partially degraded areas (brownfields), with great potential for conversion.

Furthermore, it is recognized in PNPOT a decrease in available income for consumption, with expression in housing, commerce and recreation, more severe in the interior due to aging. Portugal is compared to Spain and Greece, characterized by: high rate of home-ownership; reduced provision of social housing; low standard and falling supply of rental housing on the market; and low public expenditure on housing policy. The QREN calls attention to the fact that unplanned urban growth has created serious spatial development and quality problems, visible in the housing market breakdown and in the difficulty in maintaining a balanced and rational offer and distribution of amenities. It has also caused problems of accessibility, solved mainly through an excessive resource to individual transport with consequences in congestion, pollution and use of public space.

On matters of territorial and social cohesion, it is given some attention to issues such as territorial segregation, social exclusion and cumulating social problems, especially problems related to the integration of immigrants, such as increasing violence and crime incidence. The QREN stresses concern about the emergence of social exclusion and spatial segregation problems in some Portuguese cities. In the *Programa Operacional Temático de Valorização do Território/ Thematic Operational Program for Spatial Improvement 2007-2013*, encompassed by QREN, it is also noted that these phenomena associated with urban areas have been rising, calling for new forms of prevention and management. Social and integrated revitalization policies for degraded areas, with urban poverty and social exclusion problems, excessively dependent of Welfare money and other public investment are considered as threats. The Green Paper also remembers that congestion generates diseconomies; hence various cities in the Interior face urban degradation and social exclusion problems. This is

reflected by lower than average GDP *per capita* and high unemployment, but also by poverty pockets, crime and social unrest in many of the most prosperous cities in the EU.

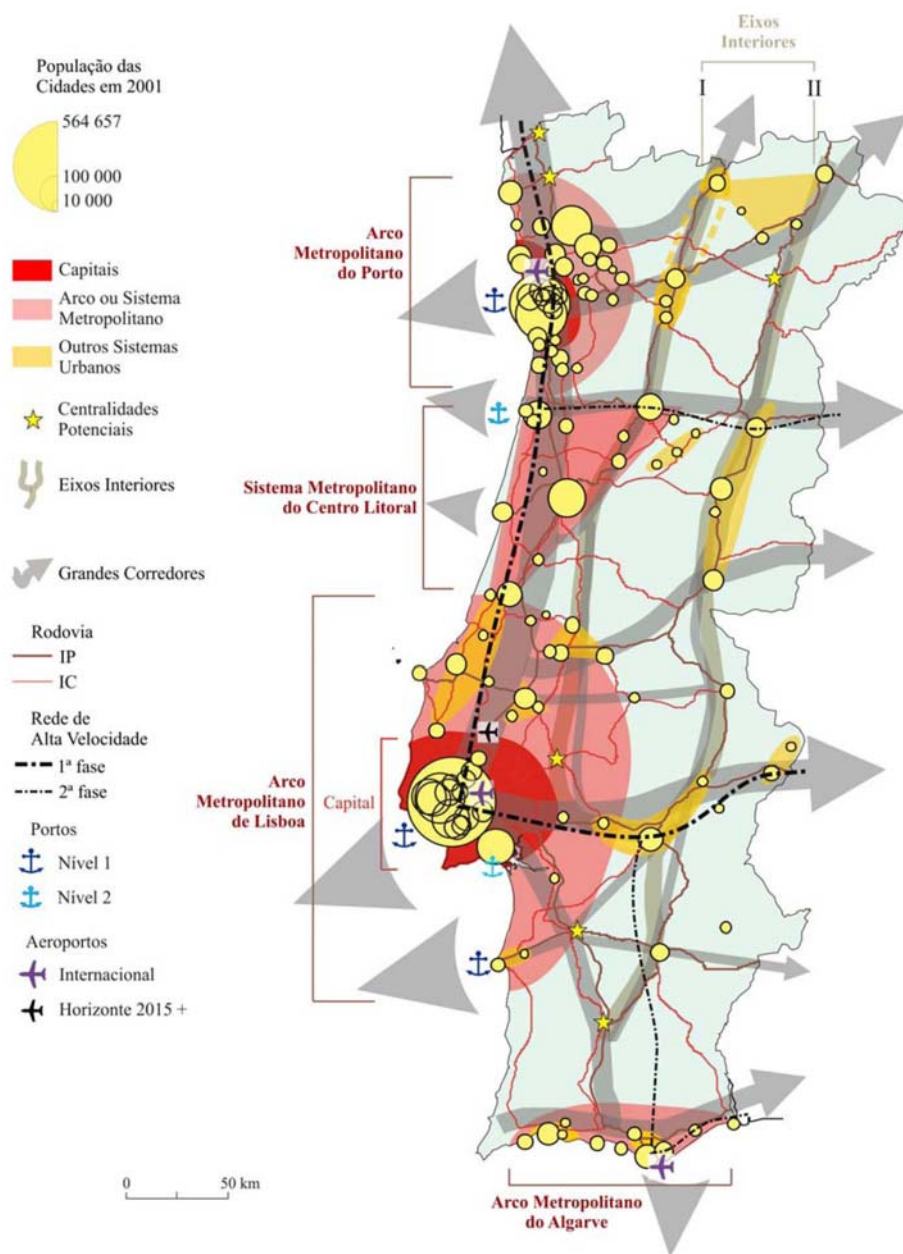
In this context, a strategic priority in the QREN and corresponding Thematic Operational Programs is to develop the territory and the cities – promoting better planning, preventing risks, improving connectivity and consolidating the strength of the urban system, bearing in mind the desire to reduce regional asymmetries. The channeling of funds to the development of the interior, in particular of the rural areas, is considered an important lesson learned. The decline of the so-called “rural world” can affect/ distress habitats and ecosystems, because vast protected areas are located there and in close dependency of traditional human activities. Relevance is also given to investments which help to improve mobility and accessibility to major population and economic centers, which in turn is seen as an important factor in the strengthening of population settlement conditions.

One of the strategic options of the BEGIZCN is to develop human urban and rural landscapes, through management financial mechanisms and means to ensure its recovery and improvement of living conditions of the population. Similarly, in the PNPOT is asserted that the agro-forestry sector, while it creates direct employment and fosters the emergence of markets for specific services linked to this sector, can contribute to the looked-for population retention and attraction in declining areas. In the PNPOT, housing rental incentive programs for the young population, facilitating access to housing and contributing to demographic and economic revitalization of urban areas with problems of aging and functional and economic decline are seen as part of the solution. From a social stand point it is argued, in the Green Paper, that the focus should be on reducing the negative effects of urban peripheries and ensuring that all population groups benefit from specialized and productive economies.

Reabsorbing brownfields’ environmental liabilities is a priority policy area of the Thematic Operational Program for Spatial Improvement. Similarly, the intervention areas of the South Waterside Arch Project are seen as playing an important role in a sustainable urban development strategy, contributing to economic revitalization, and strengthening the competitiveness of the AML and the region. Two of the main objectives of the Operational Agenda for Spatial Improvement are to promote: polycentric urban development, strengthening the articulation between cities and their surrounding areas and the improvement of urban spaces; and social cohesion, while ensuring territorial equity when providing infrastructure and public facilities and services. On the other hand, innovative solutions that physically focus on efficiency and reuse of infrastructure and equipments at the expense of new construction are seen as necessary to answer to the complexity of urban problems. In technical terms, solutions should explore opportunities that new technologies have to offer.

The Action Program (QREN) finances projects which articulate and integrate improvement of public spaces and urban environment, and economic and social development. Thus investments supported by *Eixo Prioritário*/ Priority Axis IX (QREN) aim at enhancing responses to urban problems and demand. It is argued that traditional solutions and physical investment are not enough to tackle the negative consequences from the urbanization process in Portugal (economic depletion of the historic centers, housing demand, violence and crime, etc.), and require new organizational forms that capitalize on investments. Pilot projects are privileged in the context of innovative solutions to urban problems, preferentially with a significant non-material component, which use innovation to meet urban problems and new urban demand, contributing to the development of sustainable urban communities, particularly in the areas of: provision of proximity services; urban accessibility and mobility solutions, security, risk management and crime fighting; eco-innovation in construction and housing; public space and buildings management, energy efficiency, air quality and waste management; and urban governance models.

POLIS XXI is based on complementary policy instruments and financing sources. It encourages innovative solutions for promoting urban development guided by principles of environmental sustainability, efficiency and reuse of existing infrastructure and equipments rather than new construction, seizing on opportunities offered by new technologies, community empowerment and development of new forms of public-private partnerships. Its ambition is to ensure that cities constitute spaces of citizenship, cohesion and cultural identity, integration and heritage, making participation processes more efficient, and fighting obsolescence, crime and exclusion factors. Moreover, its goal is to ensure that cities constitute spaces of environmental quality and well-being, promoting sustainable resource use, urban design, construction, mobility and landscape, and equitable access to housing, equipment, services and several types of amenities. Physical interventions should serve a more integrated vision to transform cities in places of social cohesion, economic competitiveness and environmental quality.



Source: SIG PNPOT (1982)

Figure 54. PNPOT: Urban system and accessibilities in Mainland Portugal

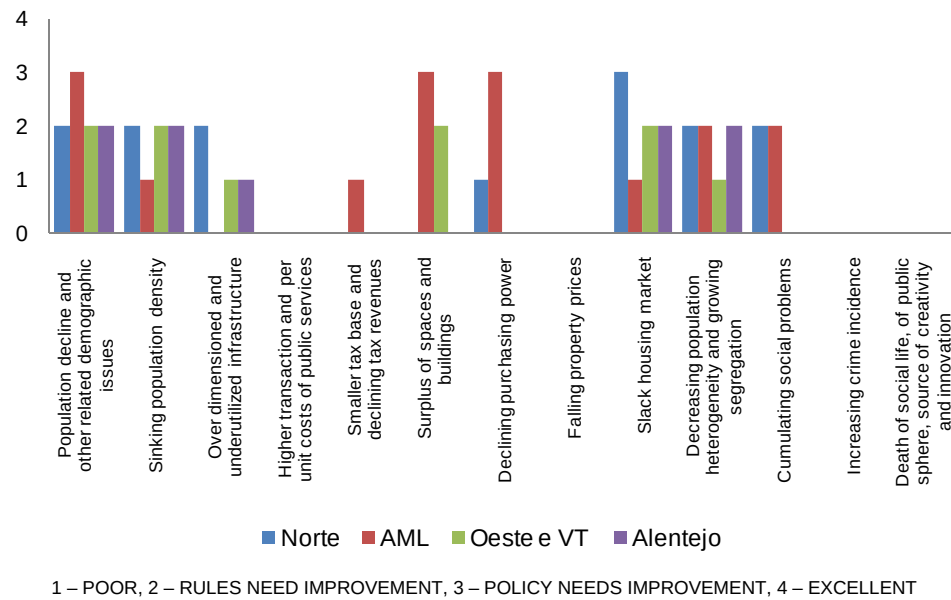


Figure 55. Spatial planning instruments and policy diagnosis: comparison between regions

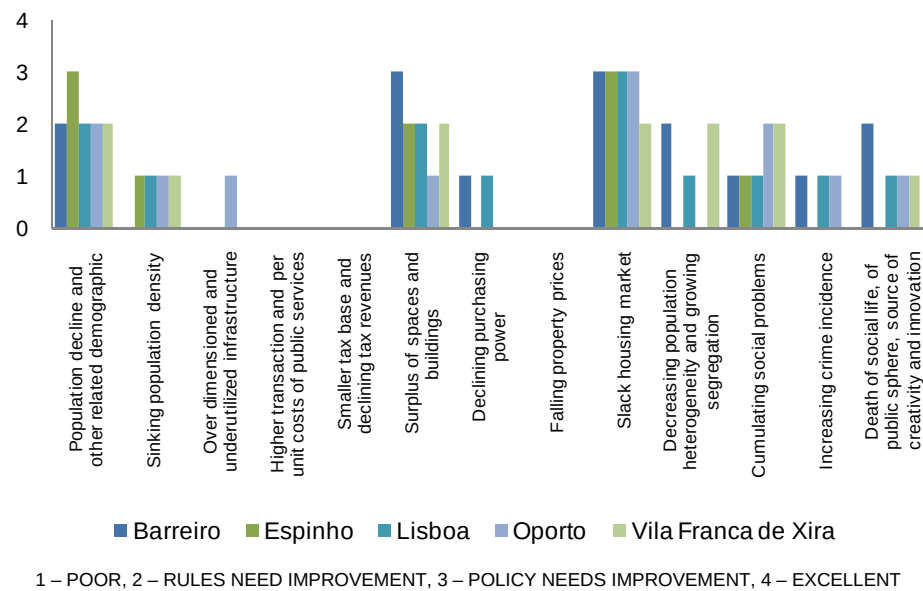


Figure 56. Spatial planning instruments and policy diagnosis: comparison between cities

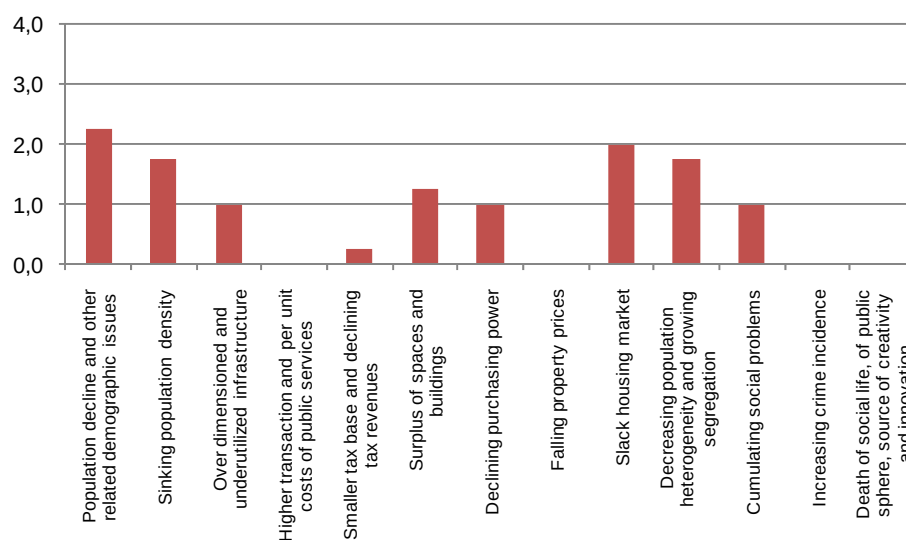


Figure 57. Spatial planning instruments and policy diagnosis: synthesis in regions

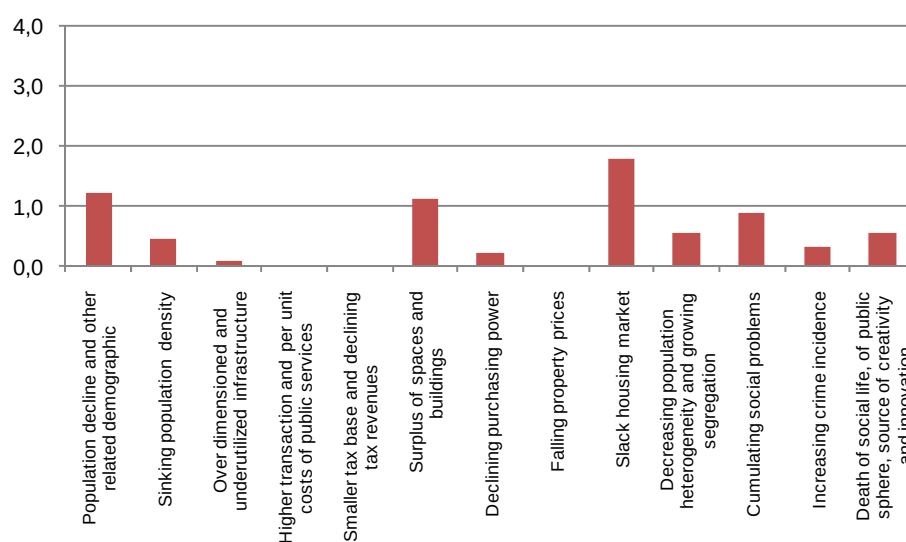


Figure 58. Spatial planning instruments and policy diagnosis: synthesis in cities

Summary of Chapter VI

The concept of shrinking cities is not explicitly mentioned in any of the Portuguese spatial planning documents analyzed in this chapter. This can be explained by three reasons: (1) it is a fairly recent and still emergent phenomenon in Portugal; (2) its prevailing negative connotation; (3) the concept is recent and it has not yet been transferred from theory into practice. Given that it has not been recognized in its full and comprehensive extent, there are only references to some aspects of the concept. That is the case of population decrease and other interrelated demographic issues. On a national scale, low fertility rates, diminishing net migration, and resultant population aging are considered, comparatively, a major concern. In addition, population decline in inner rural areas and in urban cores, or more specifically in historic/downtown centers is highlighted. Other common concern is reconversion of industrial brownfields usually located in the periphery of the main cities, but that have been absorbed by them as they turn obsolete. The most common issues, especially in local spatial planning instruments and policies are: housing market, population decline and aging, and surplus/vacant spaces and buildings. This is not a surprise because population decrease is seen as, mostly, a response to inadequacy of the housing market, unbalance between housing supply and housing demand – whether because of practical matters such as its state of conservation or sociological substance issues such as image and lifestyle.

Whether you look at national, regional or local planning documents, you can always find the new buzz expression: territorial cohesion. Almost every measure falls under the umbrella of territorial cohesion that jointly with social cohesion might be the most repeated expressions. Urban regeneration in central/historic areas goes hand in hand with social cohesion. Improving quality of life is considered essential to create lasting competitive advantages between cities that surpass mere short-term motivations for living in a city and leaving another city, such as lower property prices. Quality of life is associated to amenities for the young and for the elderly, green spaces, security, culture and to some extent innovation. Partnerships opportunities are encouraged. From a resource efficiency perspective, significant importance is given to ICT and to reuse of existing infrastructure and equipment. The priority is to devise adequate strategies to revitalize existing built areas and/or reprogram brownfields, voids' infill, etc. Other topics, for example higher per unit costs of public services, are mostly overlooked at the local planning level. Important steps have been taken already at all planning levels; issues such as reduction of urban perimeters, control of dispersion areas, and regional complementarities are incorporated in planning strategies, approaches and recommendations.

CHAPTER VII. Final discussion, conclusions and recommendations

The last chapter of the dissertation synthesizes the research work developed in its entirety. First, concerning the theoretical body of knowledge in the field of shrinkage; and second, regarding the specific Portuguese case. After the final discussion, a group of conclusions is presented followed by recommendations for future research in this field.

To contextualize the contribution of the thesis, we resume in the first section of this chapter the main debated questions in this field, especially connected to the concerns and goals expressed in the present dissertation: define the 21st century shrinking city and its relation to planning. The former includes the dichotomy growth-shrinkage, population decline as the most visible symptom of shrinkage, its consequences and the characteristics of shrinkage; and the definition and typologies of shrinking cities. The later comprises the renewal mechanisms and fields of action of planning in regard to shrinkage; and the approaches, strategies and recommendations currently in place.

In the second section, we debate Portugal and shrinkage, specifically the Portuguese context and shrinking cities, alone and in the international context; the typology of shrinking cities in Portugal, obtained through the cluster analysis; and lastly the spatial planning instruments and policy diagnosis, for the case studies, and the respective regional and national framework. The evidence found is discussed in the face of the theoretical background presented in section VII.2.

VII.1 Planning and shrinkage

The first theme in analysis in this section is the prevailing antagonism growth-shrinkage. Throughout **Chapter II**, we support the argument that shrinking cities, or in a broader sense, shrinkage is a pattern of development, rather than an individual urban problem, and that it is a serious matter for planning. Shrinkage, not only is it not an ordinary urban problem, it also cannot be tackled through conventional planning theory and practice. Planning and growth have walked hand in hand, chiefly since the industrial revolution, giving an artificial perception that the former's existence is only justified by the occurrence of the later. On the contrary, for a long time, there have been signs that urban growth is not limitless and perfectly correlated with urban development.

As we have described all through this dissertation, recent (and not so recent) events and findings corroborate the statements made above.

While the number of shrinking cities augment all over the world, making the phenomenon more evident for planners and decision makers, it is manifest the inability of most of the current policies, instruments and tools to deal with it. This can be explained by the fact that the general assumption behind them is growth. Additionally, most of the current planning policies, instruments and tools do not possess enough flexibility to adapt when the paradigm shifts, mainly because shrinkage has never been considered as being part of the equation. Most of the time, the solution found is to maintain growth strategies, with the expectation that in the end people will eventually return.

Another point we tried to make in **Chapter II** was that urban growth itself is not, in opposition to shrinkage, a perfect pattern of development. There have been criticisms towards growth. Undeniably, the most severe criticisms have been put forward in antipathy for suburbanization or, specifically, against sprawl. Urban sprawl has been brought under strong planning control, even though levels of success vary. Notwithstanding, some disadvantages are familiar both to urban growth and urban sprawl. Actually, some of them are even similar to disadvantages of shrinkage, supporting the argument that shrinking cities are as acceptable and as manageable as growing cities.

If we take a look at the characteristics of shrinkage – decrease in population density, vacant buildings and spaces, over dimensioned infrastructure, etc. – we become aware of how they could be addressed as an opportunity within the context of urban and regional planning. There are apparent motivations to engage in planning for shrinkage when challenged in this way and not only reasons to feel menaced by it. Several authors suggest that population

decline, stagnation or slow population growth, leading to shrinkage, is not inevitably a problem, as we describe and exemplify below.

Generally, it is fair to say that whilst planning theorists and practitioners were busy trying to find ways to reverse shrinkage in order to get back in the pathway to growth, there has not been put much thought into shrinkage as an opportunity to rethink planning and maybe facilitate the solution of unsolved urban problems. As said by Rink and Kabisch (2009), shrinkage has been an underrepresented topic.

Although this is the general attitude, Kabisch et al. (2006) argue that shrinkage is as a chance for reshaping urban spaces and that urban policy makers should feel challenged, not frustrated, by this type of urban development, which entails the replacement of the paradigm of growth in practice-related thinking and in developing new strategic goals for urban futures. Also in this view, Bourne and Simmons (2001) assert that population decline is, thus, only a problem if it limits opportunities, increases unmet expectations, qualitatively reduces public services and depreciates the quality of everyday life. Ahrens (2005) believes that to break the causal chain described as: “loss of job—move to a different town—empty apartment—reduction of social and technical infrastructure—further job losses—further losses of mobile employees—reduction of human capital—shrinking demand and markets—less social engagement and potential for innovations—loss of local identification—tax losses—less investments”⁵² new and innovative solutions are needed to manage structural shrinkage processes.

Shrinkage implies (or it can imply) first and foremost a relief in pressures for growth. For instance, as argued by Bourne and Simmons (2001), it may allow for regions and municipalities to catch up with the demands for new infrastructure and social services, and to address pressing environmental issues. Banzhaf et al. (2006) name it counter development, an opportunity to minimize the amount of further land consumption, to develop a different inner structure of a shrinking city, and to redevelop urban areas of residential vacancy and urban brownfields creating for instance new open spaces or planning densification projects. Reduced population densities can pose an opportunity to reshape from within, from the core out, in cases where central city decline is in place. In situations of random perforation, the loss of open space might be compensated through a strategy of deconstruction/naturalization. In this sense, sinking population density, vacant dwellings and derelict land present

⁵² This causal chain is only one depiction of a multidimensional phenomenon, from several possible. First, unemployment is an important reason but not the single reason why people migrate; and second, migration is not the only motive population decreases as a whole as we learned before in Chapter II.

themselves as extraordinary changes in circumstances and an opportunity to deconstruct created situations, otherwise unthinkable.

This deconstruction, counterurbanization or, as we prefer, shrinkage can also be an opportunity to restructure the relation between land use and transportation, once traffic reduction caused by population decline can lead to apparently several (inconvenient, but mostly convenient) changes in transportation demand and supply (see Ahrens, 2005). As for social consequences of shrinkage, they do not seem to differ appreciably from the consequences of urban sprawl or even of growth in general; thus they do not constitute an argument to discriminate against the former pattern of development in favor of growth. Rybczynski and Linneman (1999) state that the challenge is clear: «Our cities must be radically redesigned to be both better and smaller».

Pertaining to urban policy, Couch et al. (2005) main conclusion is that in situations of urban decline it becomes easier for the planning system to control residential sprawl because of a low demand for housing and, therefore, less forceful attempts by developers to seek sites or planning permissions, although this is not linear. Rink and Kabisch (2009) are consistent with this argument, considering that shrinkage opens up a new perspective for the ecological debate, centered on the connection between the reduction of inhabitants and the use of resources or environmental pollution.

Strohmeier and Bader (2004) consider that the reaction to major and long-term demographic developments should not be pessimistic because population decline can be an opportunity: it can open the way to renewal and modernisation (e.g. in competition, in urban development revitalisation); it can offer opportunities for quality improvement (e.g. in the residential environment, for open space quality and local recreation, as well as for neighbouring natural landscapes); and provide an incentive to mobilise the endogenous resources of regions (e.g. new economic sectors and initiatives). Leo and Anderson (2006) are quite realistic, arguing that most cities will not change their rate of growth appreciably, no matter what policies they institute, but that they can tailor their policies to capture the benefits of their slow or rapid rate of growth (and why not shrinkage), while minimizing the constraints.

An always important question is the true relevance of population decline, and of whether it is being exaggerated and overreacted, a little bit like what happens in the climate change debate. It is unmistakable today, as we have seen in Chapter II, and according to the recent *World Population Ageing 2009* report, that in 2050 for the first time the number of people over 60 years of age will be highest than the ones under 15, not only in OECD but worldwide. Arguments that look at immigration as a solution for OECD countries, have now to include

the fact that as less developed countries reach maturity they will too suffer from the same problems. Our society revolves around the young population, but in the future this will change and it will be necessary to focus on the senior citizens, their problems, worries and aspirations. This will have consequences for all cities; the sooner we learn to adapt, the better. The definition of shrinking cities and typologies of shrinking cities is another important theme in the debate of planning and shrinkage (see for example Pallagst, 2005; Wiechmann, 2003, 2006; Martinez-Fernandez and Wu, 2007; Beauregard, 2009; Moraes, 2007). In what concerns the former come into view questions such as what defines it, which dimensions should be considered, what are the thresholds, etc. Similarly, regarding the typologies, the thresholds, scope and indicators show discrepancies, related to context and to what one considered as shrinking city in the first place.

From the beginning, the question of whether population decline alone is sufficient to consider a city as shrinking is a relevant one. Turok and Mykhnenko (2007) and Fassmann (2006) support it is enough, in the sense that if migration is the cause for population decline it is reflecting relative differences between places (in employment, politics, income, etc). In this regard, understanding the causal processes of population decline – that can be as diverse as cities – gains more importance when devising regional or city strategies, than to build a definition of shrinkage as a phenomenon.

Furthermore, a more complex formulation of shrinkage would possibly exclude certain regions and cities, as exceptions to the rule, pushing back the focus to the causes, which seem to hold back the planners from looking at population decrease and shrinkage positively. The question is not so much what is going wrong; it is how we can use it in our advantage. If we believe in Van den Berg et al. (1982) theory that once a city's tertiary sector reaches maturity, counterurbanization sets in, then as the currently least developed countries achieve economic prime, shrinkage will be truly global, an argument supported by OECD (2003).

The spatial scale – regional, city or district – is quite important in the definition and identification of typologies of shrinking cities. Whereas in some regions, cities grow at expense of others, in other regions population decline may be widespread or broadening. As mentioned before shrinkage might not be consistent in a region or even in a city. It is also a matter of setting the context (local, regional, etc.) for shrinkage often interconnected and difficult to unscramble if one looks at an isolated (un)integrated spatial scale of analysis.

One other research aspect refers to the population thresholds for selecting cities, both regarding the cities' population size and change. It is difficult to define a threshold for international comparison that is equally appropriate for all contexts (national, regional, etc.).

The same issue arises when one tries to define a metropolitan area, or a medium sized city; but in this case, if your threshold is too high you may be leaving out exactly the cities you are looking for, the ones that are shrinking.

Central themes in this debate are the renewal mechanisms and fields of action of planning, and the approaches, strategies and recommendations implemented in regard to shrinkage. Although seldom so much internal, top-down and lateral innovative effort – competitions, prototypes, building exhibitions, and urban research – has been dedicated by the planning profession in so little time (in some countries), Jessen (2006) states that it is early to assess planning's role in dealing with shrinkage. Jessen finds noteworthy that urban structure and development models and parameters are used with an opposite function: shrinkage. Nonetheless, Hollander (2007) argues that planners have but few potent techniques to address shrinkage, contrarily to growth.

As seen in **Chapter III**, Oswalt (2008) identifies five possible fields of action in conditions of shrinkage – deconstructing, reevaluating, reorganizing and imagining – in giving shape to urban space and formulates several urban concepts that outline conceptual models correspondingly: (i) demolition city, evolutionary city, feral city, contraction city, depleted city, polarized regional city; (ii) temporary city, pioneer city, reinterpreted city; (iii) do-it-yourself city, strong city, commodified city, emerging city, exceptional city; (iv) communicating city, marketing city, and profiled city. Another possible perspective is to differentiate between **reaction** and **adaptation**. Reaction is whenever the response involves merely approaches, strategies and recommendations to reverse shrinkage and resume growth. Adaptation is when these seek to adapt to consequences of shrinkage, rather than to end it.

In the literature, recommendations for over dimensioned and underutilized technical and transportation infrastructure are adaptation driven. Koziol (2004) recommends low-cost urban renewal strategies, i.e., economically sustainable ongoing urban redevelopment based on: anticipation; projection; re-usage; extensive downsizing; demolition; long-term advantage; adaptability; regional demand; reasonable dimensioning; and investment optimization. In sum, strategies and measures should be carefully weighed up and urban redevelopment processes comprehensively coordinated and mediated. Ahrens (2005) recommends that age specificities are considered in transportation planning. The author suggests that the focus should be on low-cost soft measures and policies to improve and maintain the existing transportation system and to make it more efficient. In this regard, growth assumptions, future demand and affordability should be re-examined. Guidelines for an adjusted integrated

transportation planning should include: accessibility and safety; quality; consequences and consistency (Holz-Rau and Scheiner, 2004 referred to by Ahrens, 2005).

Regarding the smaller tax base and declining tax revenues, there is both a reaction and an adaptation oriented finance strategy. The first stands up for what Mäding (2004) calls a "child (and family) friendly community" and a "foreigner-friendly community". Furthermore, it entails competition, spending more (i) on new land for residential use; (ii) home ownership; (iii) revitalized neighborhoods; (iv) attractive infrastructures and green spaces; (v) sports, business or culture events – overall, an integrated local policy, setting realistic spending priorities without losing sight of demographically determined fiscal risks. Rybczynski and Linneman (1999) consider regional government as an adaptation strategy, meaning that whenever regions' areas as a whole are expanding, linking shrinking cities to growing suburbs or other thriving areas could provide the former with access to financial resources available for the latter; otherwise, taxes should be lowered to attract population.

In relation to surplus of spaces and buildings, Schilling (2008) presents four fundamental vacant property strategies: (1) develop a regional real property information system; (2) institute a comprehensive code enforcement approach; (3) establish a multi-purpose land bank authority or program and green infrastructure initiative to right-size the city's most distressed neighborhoods; (4) create a holistic policy framework for the redevelopment of greyfields and brownfields throughout the entire region. Schilling proposes a Living Laboratory that incubates policy innovation and pilot projects that create new models of urban regeneration, such as: coordination and integration of economic development and community revitalization resources; performance-based regulatory standards; revitalization authorities; right-sizing through green infrastructure; green business attraction strategy. The author states that a national organization could facilitate and manage this network of Living Labs to share model practices and collaboratively solve problems, and cohesively and comprehensively manage this right-sizing initiative.

Rybczynski and Linneman suggest a number of alternative uses for vacant lots: parks, playgrounds and recreation sites (commercial or not), etc., through corporate sponsorship (advertising) to provide continuing maintenance; horizontal city, through down-zoning of residential areas, lowering densities and adjusting typologies to current housing demand; de-annexation to private developers, to generate funds through sale, compensating overdue and current maintenance of urban infrastructure and security, enhancing and filling in urban fabric, creating a more viable smaller city; clean up properties through public or private funds, allowing development if the environmental quality of the property markedly improved.

EUROCITIES' (2008) recommendations for EU housing policies have an adaptation nature, putting emphasis on: aging and its social consequences; increased risk of poverty of older people at the local level; rethinking urban planning and policies, anticipating ('counter-cyclical') approaches; long-term and prospective vision; convergence with sustainability. For cities, EUROCITIES recommends increased sharing of information: development of local monitoring systems; age mainstreaming; fostering communication between cities and between neighborhoods; building up local knowledge clusters to produce synergies and to keep status track; capitalizing on the resources of publicly-financed scientific institutions; deliberating distinction between population growth and economic development; involving expert groups to give advice, recommendations and develop proposals; using the political arena to support immigrant communities.

Strohmeier and Bader (2004), Sucato (2006), Vargas-Hernández (2006, 2007) emphasize the role of community involvement in shrinkage. Strohmeier and Bader suggest forms of participation that appeal to individual utility through short term and low input do-it-yourself projects, establishing networks and saving costs. Sucato argues that community involvement can help to stabilize deprived urban areas and hold back additional polarization, and motivate functional cohesion of these areas. Vargas-Hernández (2006, 2007) also believes in the significance of formulation and implementation of integrated policies to minimize social and environmental impacts in revitalization. Moraes (2006) argues that income inequality, poverty increase and the exclusion process of the Latin-American urbanization are key points for understanding shrinkage in that area. Urban management tools such as: sale of building potential, transfer or sale of building rights, public-private partnerships, priority zoning, density zoning, and building enforcement can contribute to re-democratization of urban land use and reversion of the degradation and shrinkage process of old industrial areas.

Culture, creativity and creative industries are seen as playing a role in reacting to and reinventing shrinking cities in the context of the new economy (Aber, 2006; Brown et al., 2004). Aber's assumption is that economic recovery will arrive through culture-led regeneration, integrating economic development, cultural development, and urban design to attract and retain the creative population segment. Brown et al. (2004) state that music and 'local music industries' have gained importance; nevertheless, the authors find that the integration of the business of culture into a wider cultural policy is a key to succeed.

The role of housing policy and integrated regeneration in shrinking cities is the focus of Bontje (2004), Liebmann and Robischon (2006) and Wiechmann (2008b). The biggest contribution to adaptation to the consequences of shrinkage and planned shrinkage has been done on the matter of surplus of buildings and spaces (Wiechmann, 2008a, 2008b). For the

most part, housing policy has corresponded to demolition of flats, in vacant or underused buildings, to stabilize the housing market, and improvement of the more stable housing quarters, to adjust it to the population size. The vacant lots are turned into parks or squares and owner-occupancy is then stimulated to strengthen ties between people and space. These authors agree that, bearing in mind the complexity of the phenomenon, housing policy is insufficient in the absence of integrated city-wide urban development strategies.

For Martinez-Fernandez and Wu (2006, 2007), innovation might have a major role to play in the transformation processes of shrinking cities, particularly regional innovation systems. From the authors' point of view, a shrinking area can be seen as an intellectual asset for the development of knowledge networks, together with research and education institutions, scientists, industry associations, and community and government organizations. This can facilitate the flow of knowledge among different stakeholders in the city, the connection to other international networks through its more international participants and ultimately could enrich the regional innovation system. Shrinking areas can develop into learning environments to hold innovation, creativity and vitality; key factors to keep competitive. Hancock (2007) agrees that creative edge is a competitive advantage in the global economy.

Audirac (2002, 2005, 2006) explores the link between information and communications technology (ICT) urban form and shrinkage. Audirac asserts that, if on the one hand, synergies between ICT and our car, truck, and airplane society may be a thrust behind well-established urban decentralization and deconcentration trends, on the other hand, the slow-food movement and other slow-world activities could be alternative anti-globalization utopias with potential to occur in shrinking cities. The author adds that regeneration schemes that revert unused infrastructure and vacant lands to green open space could become carbon credit sellers in greenhouse gas cap-and-trade programs.

Hayashi and Sugiyama (2003) suggest a de-suburbanization and social capitalization strategy (Kato et al., 2003) requiring consensus on future goals for land use; reform of zoning; coordination of building control and taxation; evaluation of social value and social cost of a site; provision of incentives for social capitalization in the real estate market; and transfer development gains to conservation areas. Hayashi and Pallagst (2007) propose a shift from smart growth to a smart shrinking strategy. Moreover, Mulligan (2006, 2007) argues that environmental concerns and activism can be catalysts for change, improving a city's image in order to attract new, regenerative investment in conditions of stagnation and retrenchment.

Mace, Gallent et al. (2004) propose an attraction-retention strategy, through which shrinking cities become magnets for the young; and keep the family builders. The university base; the

physical environment and transports are considered the key for this strategy. The only setback may be to combine both qualities that attract the young graduates and couples. To counter this risk, cities must pursue conscious policies in: urban regeneration; education; transport; and security. In view of that, to achieve these policy objectives, cities need to acquire and to use the following key policy levers: physical redevelopment powers; flexible housing subsidies; and discretionary spending powers.

According to several authors (Jessen, 2006; Müller and Siedentop, 2004; Pallagst, 2007; Strohmeier and Bader, 2004; Troeger-Weiss and Domhardt, 2007), urban and rural shrinkage should be addressed at the regional scale, standing for an integrated regional development strategy concept in shrinkage circumstances. Only at this scale, the authors believe can duplicate investment be prevented in making more efficient use of public finance in adapting the technical and social infrastructure to changing demand, and competing for population and jobs, avoiding greater landscape consumption. Strohmeier and Bader advocate that opportunities can only be exploited through an open debate about demographic problems in spatial planning and development policy, identifying and taking account of local impacts, and finding regionally differentiated solutions.

Generally speaking, a great number of contributions regarding shrinking cities recover planning policies with approaches and strategies which were developed in somewhat diverse or even very different urban contexts. Whether we are speaking of creativity or community involvement, to exemplify, these correspond to generic discourses cast upon urban problems. Thinking is still feeble and fragmented. Perhaps this is owed to shrinkage's character. That is to say: despite denial in planning theory, facts have made it inexorable for practitioners that, without theoretical basis, were obliged to deal with the problem in their own way, as they usually did when planning for growth. It is just as conceivable, that this is due to the relative novelty of shrinkage in planning literature; and that thinking is bound to strengthen.

Clearly, there are some references to this contradiction between planning and shrinkage; we have mentioned them throughout Chapters II, III, and again in the present Chapter: the triangle between growth, planning and shrinkage; prudent recommendations concerning several consequences of population decrease; motions for pragmatism and flexibility, use of old models with a different goal, etc. What is lacking is an explicit, unequivocal, and comprehensive theoretical debate and framework on the topic of planning for shrinkage. This would entail a previous reflection about what does shrinkage mean or should mean, a refinement of typologies of shrinking cities and typologies of shrinkage for that matter.

VII.2 Portugal and shrinkage

The motivation for Chapter IV was to provide evidence from Portugal relating shrinkage.

Looking at general population trends in Portugal (1864-2001) obtained through the analysis of population census, 1918 stands out with the only strong negative natural increase due to extraordinary reasons (pneumonic flu). In addition, in the 1960's there was: a deceleration in population growth due to the great cycle of Portuguese emigration to Europe, resulting on a negative net migration; and on the other hand, a decline in the fertility rate (Carrilho, 2002). During the 1980s, there was population decline in small urban units in the inner country, with a small number of exceptions and, most importantly, Lisbon and Oporto lost population, while the population in small and medium size cities increased (Marques, 2004). The fertility rate was below generation replacement levels for the first time (Carrilho, 2002).

Although Portugal is not experiencing the same population decrease as other European countries, such as Germany, the country has been presenting a negative natural change (Eurostat, 2009), that will not be offset by positive net migration for much longer. Some regions in Portugal show soaring figures in the European context, with up to 23 per cent of their population aged 65 years and older. Between 1991 and 2001, there was evident population shrinkage in Lisbon and Oporto, but is possible to find other demographically declining cities splintered all over Portugal. Jointly with changing quality of life standards, housing rental policy which existed in the country until very recently (and is still divisive) accentuated the abandonment of (older) central areas. Supporting this reality are recent projections that point to population dwindle and the progression of aging, even if fertility levels increase and net migration continues positive (INE, 2009).

Cities and its surrounding regions come into view as an appropriate geographic level of analysis, integrated but not too macro as plan regions where indicators are blurred. One fifth of the cities in the Mainland are losing population, among them are the country's two most historically important cities: Lisbon and Oporto. In 2008, the cities of Lisbon and Oporto were two of the cities with higher negative population change rates (almost 30 per cent). As mentioned before, in the international context, Lisbon and Oporto rank high in several Urban Audit' demography indicators rankings. Lisbon, for example, is the capital city that lost more population in 2004 (amongst 19 capital cities) and has the highest demographic old age dependency index (amongst 23 capital cities). Also in EU15 or in EU27 rankings, not only Lisbon but also Oporto have high scores, that is to say have significant scores in demographic indicators that mirror evident shrinkage.

However, 1st band aside (60 per cent), the proportion of cities that has negative population change is equivalent independently of the considered size band (between 15 and 19 per cent). Except for the metropolitan areas, the location factor, including the coastal factor, apparently does not influence, either positively or negatively, change in the resident population. Between 1991 and 2001, Portuguese cities lost population at different spatial/geographical levels. One third of the shrinking cities belong to a shrinking region, although located in a growing region. Seventeen per cent are situated both in a shrinking municipality and a shrinking region. Moreover, more than 10 per cent of the fast growing cities in Portugal have shrinking close and extended surroundings, that is to say municipalities and boundary municipalities.

Because shrinkage is an emergent phenomenon in Portugal, with less expression than in other countries in Europe and in the rest of the world, problems are not yet as pressing. The aging dimension of shrinkage is quite worrying – since the beginning of this century, the proportion of elderly exceeds that of the youngsters – because current and forecasted net migration may not be enough to turnover this trend. Immigrants usually take on fertility and mortality behaviors of the host societies and age. Plus, the recent financial crisis and especially the structural economic crisis the country has been experiencing changed its attractiveness as an immigration country, and are forcing young and skilled population to emigrate.

Thus, increasing dependency ratios pose a serious challenge to the sustainability of the current Portuguese pension system, but it also can cause disturbances and malfunctions in the health and education systems, besides other consequences for the economy as a whole. Consequences concerning the way urban-rural systems function will have to be equated in order to ensure the special quality of life demands' of this population group. Rural and/or low density areas entail other shrinkage problem regarding provision/access to services (especially public) and goods: closure and reshuffle in some public/social services' networks have already caused some stir in the recent past.

In cities like Lisbon and Oporto, or even Barreiro, the lengthy population loss is visible in the significant number of vacant dwellings and buildings, decaying commercial activity, prevalence of the old and most disadvantaged population groups, cumulating social problems and less demanding critical mass with consequences in the daily city management. These cities clearly lack the liveliness and glitter that characterize other thriving metropolises. Prevailing urban decay sends out a negative message to population, which is bewildered by the attractive image that growing cities disclose, deepening even further the cycle of decline.

The typology of shrinking cities in Portugal, obtained through the cluster analysis backs up the arguments described above in this chapter. Shrinkage is cross-cutting to different types of cities in Portugal, although the biggest cities are losing more population than the rest. Despite the fact that cities like Lisbon and Oporto currently overflow their original administrative municipality boundaries (or even their statistical limits) and are the centers of metropolitan areas, the relevance of population loss for planning should not be disregarded. The consequences of population decrease should especially be taken into account in order to boost development and improve quality of life in shrinking territories for a healthy shrinkage.

It is difficult to compare the existent typologies of shrinking cities, which are mainly based on causes, with the typology based on consequences obtained through the cluster analysis. We knew that from the start but we wanted to cover a broad range of indicators to make the most of the emergent nature and characteristics of shrinkage. It is possible to find similarities with the Australian and French typologies, to the extent that the centers of the cities/metropolitan areas and the first suburbs are also affected. Certainly this cluster analysis suffers from a number of limitations, all of which suggest future avenues for research (see next section).

Although Portuguese demographers have seen it coming for quite some time, spatial planners and decision makers have not really been alarmed by the ongoing or upcoming population decrease in Portugal, especially in cities. The concept of shrinking cities is not directly mentioned in any of the Portuguese spatial planning document analyzed in Chapter VI. This is understandable because it is a developing phenomenon in Portugal, and a rather recent concept which has not yet gained visibility. For these reasons, there are only references to some dimensions of the concept of shrinkage: population decline, especially in inner rural areas and in urban cores, or more specifically in historic/downtown centers; low fertility rates, diminishing net migration, and population aging are considered with apprehension.

Although the Portuguese cities in the interior are not by and large declining, the phenomenon of population decrease is indeed commonly seen as result of population flight from the interior towards the coastal areas, an issue of costal-interior regional asymmetries. However, this is an outdated perception: today it is more of an urban-rural dichotomy. Shrinkage characteristics are associated with the traditional city crisis and the surfacing of new centralities, usually pointed out a product of suburbanization and/or sprawl. Again the problem is not as plain; it is a broader structural demographic matter, that is distressing the feeblest areas of cities, for one reason or another, but that will spread out. The reconversion of industrial brownfields is often mentioned.

The above are also some of the most common issues addressed at the regional level. The housing market, population density and population heterogeneity together with segregation are also given considerable importance. West and Tagus Valley's major concerns are labor force aging, more than population decline, sinking population density, surplus of spaces and buildings, and balancing the housing market. In the Northern region, the fragilities of housing market, population decline, and sinking population density, especially in Oporto and rural areas, are the most important worries. The Metropolitan Area of Lisbon gives emphasis to population decline, surplus of spaces and buildings, and declining purchasing power. The Alentejo Regional Spatial Plan gives a lot of attention to population decline, sinking population density and other demographic related issues but has accepted it, trying to do the best it can with the available resources. Importance is also given to slack housing market, decreasing population heterogeneity and growing segregation although not in the same way and degree that other Portuguese regions do.

The most common issues in local spatial planning instruments and policies are: housing market, population decline and other related issues and vacant spaces and buildings. In Lisbon, demographic decrease is seen as widespread throughout the city/municipality. In general, the cities with most responsiveness to the majority of these issues are Barreiro, Lisbon, Oporto, and Vila Franca de Xira, closely followed by the city of Espinho. Judging by the diagnosis Lamego, Matosinhos, Elvas and Tomar can be seen the least aware. This is partially explained by the fact that these 4 cities do not have negative population change rates as significant as the former and by the nature of their local planning documents. Other explanation is the fact that Oporto, but especially Lisbon have stronger social and intellectual capital, and a broader discussion arena for shrinkage, unlike smaller or more peripheral cities with less critical mass available to debate.

The awareness of shrinkage in Portugal is similar to most other countries that do not perceive the extent that the consequences of population decrease may have planning wise. Not only, but also because of this the strategies, approaches, etc. have a mainstream planning nature, seeking to retain and especially attract new residents, tourists and city users; although it is accepted that the process will not be swift. There cannot be planning for shrinkage in Portugal because it has not been fully recognized: it is an unspoken spatial phenomenon. Thus far, Portugal has not taken that leap. Shrinkage and/or population decline in cities is considered inescapably reversible, unlike in rural areas where it has been extensively accepted and even precociously taken for granted. Notwithstanding, the financial and the economic crises have triggered additional planning concerns regarding economy of resources.

VII.3 Conclusions and recommendations

In the final part of this chapter, a group of conclusions and recommendations is presented. This final section includes final thoughts about the general theoretical body of knowledge in the field of shrinkage in consonance with the specific Portuguese case. Following the acknowledgment of research limitations, we specify recommendations for planning practitioners, city policy and future research.

The first conclusion we must underline is that despite limitations, and the emergent nature of the phenomenon, **it was possible to verify original evidence of shrinkage in Portugal**. This conclusion corresponds to the demonstration of the first part of the hypothesis of the thesis: although still sprouting there is shrinkage in Portugal. Besides, national and regional evidence (relatively recognized), it is also possible to find shrinkage at cities' geographical scale. Nevertheless, for the reason that the cities are not an administrative level, except for Lisbon and Oporto (in which the cities coincide with the municipalities), shrinkage is conventionally exclusively attributed to historic centers or central areas. It has become obvious that Portugal presents drivers and/or features of shrinkage.

In addition, it is possible to assert that **the Portuguese spatial planning instruments and policy documents analyzed have either a disavowal or reactive character**. This conclusion conforms to the demonstration of the second part of the hypothesis of the thesis. Despite the evidence mentioned before, the growth paradigm is still paramount in Portugal. Through content analysis it was possible to verify that similarly to other Western countries, the Portuguese planning system does not contemplate equally shrinkage and growth. Whichever the administrative level, national, regional or local, planning documents fall short to describe the depth of shrinkage in our country. The imbalance is greater when considering correspondence between “analysis and policy” and “goals and implementing rules”.

Furthermore, the **literature review and theoretical analysis about shrinkage** is an important **contribution** of this thesis' research. Together with the empirical analysis, the debate about growth versus shrinkage, the collection of consequences of population decline, the definition of shrinking cities, the gathering of typologies of shrinking cities, the compilation of renewal mechanisms, fields of action, approaches, strategies, and recommendations will expectantly help to put together the theory of shrinkage. With respect to this contribution, the typology of national shrinking cities can also generally improve scientific knowledge on this field of planning. Above all, we hope to have helped to prove the case that, whatever the causes of population decrease, learning and having the flexibility to plan for shrinkage is as a vital lesson for urban and regional planners, as planning for growth.

As research progressed, choices had to be made and decisions had to be taken, not only in methodological terms, but also regarding scope. An effort was made so that those choices and decisions were as favorable as possible to the goals pursued throughout this thesis. In the final stage of the research it is important to remember and reflect about the repercussions that those choices had in the overall thesis' research, and translate them whenever considered suitable into recommendations for future research.

The time span is an underlying issue to the conclusions presented throughout this thesis. Exception made to a brief description general population trends in Portugal between 1864 and 2001; all the analysis has been concentrated in data from the period after 1981 or 1991. This choice arises from the fact that shrinkage, even though as old as growth, only recently has gained current importance and dimension. Likewise, regarding the spatial planning instruments and policy diagnosis, it was not before 1990 that the first Municipal Master Plan from the 1st generation was approved, and more importantly not all have been revised. Moreover, although changes occurred between 1991 and 2001 are not as fresh as it would be desirable, waiting for 2011 population and housing Census was never an option on the table.

The question of scope came up at least three times: first, when Mainland Portugal was chosen, excluding the Autonomous Regions of Azores and Madeira; and second when only the cities whose population decreased were selected for the cluster analysis. The former is justified by the fact that small islands are territories with very specific characteristics, whose relation to planning on its own would justify a thesis. The latter is related to the fact that we had reasons to believe that shrinkage would not be obvious in Portugal, and that the focus would be lost at this stage if it was studied together with growth – besides a more popular and extensively studied subject on its own. Finally, due to the amount of work involved in the spatial planning instruments and policy diagnosis it was not possible to include all the shrinking cities in Portugal in that research stage.

Methodological questions are a key to all research work and this dissertation is no exception. In addition to general statistical and geographical analysis two methods were used in this thesis: cluster analysis and content analysis: the first method to obtain a typology of shrinking cities and the second method to make a spatial planning instruments and policy diagnosis. Cluster analysis was the only method, besides qualitative observation available (see Chapter V), and content analysis was considered the most adequate amongst other methods of inquiry to meet the goals of the dissertation in Chapter IV, helping in the first assessment of whether and how existing land use and development policies take into consideration population change (future research would gain from using different methods; see next pages).

Additionally, there are recommendations that can be made at the city policy level as follows.

According to this dissertation, the national level is the one that best formulates the issues related to population decline and shrinkage. Notwithstanding, this fact does not spill over into other administrative levels: regional or local. In this sense, taking advantage of the reflection made at the central government level would be a first step to make other levels aware and knowledgeable, for example through top-down guidelines on the subject of shrinkage, from central governments (in the absence of an intermediate/regional level) to local governments.

Monitoring of demographic change would be important in order to keep guidance updated. Unlike other European countries, Portugal has periodical quality official statistical data that can easily be used in this perspective. An easily accessible and interactive platform with relevant information would allow detailed spatial and graphic data analysis and comparisons. Furthermore, the right signs should be sent. Municipalities' financing schemes encourage population growth, conditioning planning options and making shrinkage acceptance difficult. It would be recommended that the transfers' distribution system rewarded best practices among growing and shrinking municipalities.

The recommendations for planning practitioners are associated with *thinking outside the box*.

Planning practitioners primarily should be aware of demographic change and its relevance and implications for their municipality or region. In this case, thinking outside the box means, escaping from generalized tendency of only considering ways to get back on track and continue to grow in the shortest term possible or, even worse, acting as nothing is happening, i.e. continuing to plan for urban growth. This entails understanding demographic change, especially shrinkage, what are the sources and resources available, what impact is demographic change having (or will have) in the city or region, what developments are irreversible, which can be influenced and shaped, how can we plan shrinkage, what do we need to do it (legislation, actors, resources, etc.), what obstacles are expected, etc.

Scenario planning can assist practitioners in this task, providing that the scenario choice criteria are realistic and not merely optimistic. Scenario analysis can diversify practitioners reasoning in dealing with urban problems, and specifically with ways to constructively address the consequences of shrinkage. On the other hand, making planning processes and plans that fit either growth or shrinkage expectations would be valuable for planning practice. Another important question is communication. If shrinkage has not been accepted in planning practice, if truth be told it is also because it has not been a popular word/development amongst politicians or even civil society as a whole. In this regard, communication planning to convey the right message can be helpful.

The research developed within the scope of this thesis opens up new possibilities and raises a number of new issues and questions. The following recommendations provide suggestions.

The first recommendation is **to repeat both the analysis of population decline and the cluster analysis to obtain the typology of shrinking cities in Portugal in 2011**. The analysis was done using mainly data from the 2001 population and housing Census and estimates for the years following the Census (estimates were not available at the city level). Even though it was possible to get a picture of what we set out to analyze, the 2011 population and housing Census would make the analysis more rigorous and even more meaningful. Making a new analysis in 2011 would allow corroborating or contradicting the results obtained and refining it with updated data. On the one hand, the geography of population decline would comprise the changes that occurred in the last ten (troubled) years, and on the other hand, the typology of shrinking cities would encompass more consistent time variables.

The second recommendation is **to make a European typology of shrinking cities**. The creation of a Portuguese typology of shrinking cities showed that it can help to understand the patterns of shrinkage of a country's cities. The Portuguese typology of shrinking cities highlighted the importance of the choice of the methods, number and nature of variables; sources; time span and other criteria. These questions gain a whole new meaning when considering a European shrinkage typology. Regarding the number of variables it is important to reduce it as much as possible to simplify the analysis as the number of cases increase. Sources and data availability vary immensely. Scale of analysis appreciably influences results, chiefly when considering diverse countries. Concerning time span, it is vital to define one that stresses change in development patterns, independently of differences in context.

The third recommendation is **to make an international comparative study about the awareness and integration of the issue of population decline in local planning practice**. Although some countries have been experiencing strong population decline in a significant number of cities, municipalities, and regions, there are hardly any national assessments (Germany is perhaps an exception) and very little international comparative analysis. It would be interesting to make an empirical research inside local governments to understand the planning professionals' degree of awareness of shrinkage as an issue: in what way is population decline perceived, negatively or positively; is it monitored and/or are its consequences monitored; how it is tackled, if dealt with at all, in the planning process. Useful insights on this matter could be gained through a comparative analysis on how cities are coping with shrinkage and the results achieved by planning in those cities, assembling an

inventory of policies, applied instruments and tools, making a distinction between the cases where shrinkage was accepted and the cases it was rejected as an opportunity.

The present clusters analysis worked for the Portuguese typology of shrinking cities. Nevertheless, if the number of cases comprised exceed the cities with population decline and include the total number of cities in Portugal, the number and nature of the variables may not be the most appropriate to ensure useful results. Thus, the fourth recommendation is **to refine the cluster analysis for a broader number of cases (cities) and use population forecasts**. Although in a first stage, the most important goal was to describe the current Portuguese shrinking cities, it would be interesting to introduce population future forecasts in order to describe future developments and make proactive suggestions, instead of reactive actions. New cases and a new forecasted time span may introduce different elements that might help to read the signs preceding population decline.

The fifth recommendation goes towards **exploring the sensibility of local governments, more specifically of practitioners in municipalities with population decrease in relation to the approaches, strategies and recommendations** found through the literature review. Feeling the receptivity of local practitioners, but also decision makers, in regard to more extreme planning approaches, strategies and measures can allow for some insight on how to combine politics, expectations, rules and facts. The goal would be to answer questions of how to make acceptance easier; how to tackle it in a positive manner; what solutions appeal the most to practitioners and politicians, etc. Future research could address the issues of innovation in planning for shrinkage and how to devise strategies flexible enough to manage urban growth and shrinkage scenarios.

The sixth and final recommendation is **to give more thought to the paradox of shrinkage**. This recommendation stems from recommendations number three and number five. How can planning straightforwardly deal with shrinkage? In other words, it would be interesting to explore the contradictions of planning for shrinking cities or for shrinkage in general. What should policies for shrinkage look like? Do they even make sense, or are they an absurdity? Is planning for shrinkage, planning for population decrease? Is it managing population decrease? Is it business as usual: planning to resume growth? What does managing shrinkage mean? Is it not attaining stagnation, that is to say not shrinking? Or is it, as we imply from the beginning of the thesis, to translate population decrease into urban shrinkage, allowing the territory to adapt to the loss of population, the same as in conditions of urban growth? To these theoretical questions, with practical implications, we would like to keep answering to.

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Appendix A. Shift-share analysis

We used shift-share analysis to assess the competitiveness of the economic sectors of the two Portuguese Metropolitan Areas, Lisbon and Oporto, and to analyze their economic base. This analysis considers each region's (in this case Mainland Portugal) sub-region (Metropolitan area) economic growth over a specific period of time as a result of a three component combination: national growth share, industry mix share (or structural shift) and local share (or competitive shift) (Torres and Martins, 1978; Shields, 2003). Growth is expressed through the numerical evolution, absolute or relative, of employment (Torres and Martins, 1978); chosen due to data availability at this geographic level. The sources of employment statistics were the (population and housing) *Census 1991* and *Census 2001*, for the reason that "employed population by place of residence and economic sector" is a variable with decennial regularity and also because recent estimates and projections are not available at this geographic level.

This analysis has obvious limitations. By nature, shift-share is a simple analytical technique and it does not account for many factors (Shields, 2003), particularly relevant in this case. First, a shift-share analysis is a *photograph* of two particular points in time, and the results are sensitive to the period of time selected; second shift-share is sensitive to differences caused by levels of economic sector detail (Shields, 2003). The fact that there is no employment data available for 2008 at the municipal geographic level is determinant for the results, especially bearing in mind that, since 2001, the economic context has changed profoundly in Portugal. The degree of detail of the Portuguese Classification of Economic Activities (Revision 2.1) accessible is also to a certain extent inadequate because some of the economic sectors are more aggregated (compact) than others.

National growth share

In general, the national growth component demonstrates that, if the metropolitan and the national economies were identical, then the Metropolitan Area of Lisbon (AML) should have grown the equivalent to approximately 142 207 jobs between 1991 and 2001. Nevertheless, during this period, AML added 168 824 jobs (Table 13). This suggests that AML is performing better than the Mainland Portugal (MI) average. The fact that AML's relative growth was higher than the national average indicates that Lisbon's Metropolitan Area grew **fast**. On the other hand, the overall national growth component shows that, if the metropolitan economy was identical to the national economy, then there should have been an increase of approximately 84 806 job in the Metropolitan Area of Oporto (AMP). However, the data from Table 14 shows that AMP added 69 300 jobs during this period. This implies that AMP is not performing as well as the national average. AMP grew **slowly**, at an inferior rate than the country (MI) as whole.

Looking a bit closer at the analysis, we can observe that in AML construction and extractive industries added more jobs than expected if they performed at the national average. Agriculture, animal production, hunting, forestry; fishery; activities of families with domestic servants and families' production activities for personal use; international organizations and other extra-territorial institutions loss less jobs than expected at national averages. The remaining economic activities added less than expected at national averages. In AMP, accommodation and catering; transports, storage and communications; real estate activities, renting and services rendered to businesses; education; and other collective, social and personal activities added more jobs than expected if these sectors performed at the national average. Agriculture, animal production, hunting, forestry; fishery; activities of families with domestic servants and families' production activities for personal use; international organizations and other extra-territorial institutions loss less jobs than expected at national averages. The other economic activities added less than expected at national averages.

Evidently, employment change at the metropolitan level does not exactly follow the overall national trend. The other two components of the shift-share analysis can help identify why.

Industry mix share

The overall industrial growth component of 120 533 means that AML has 120 533 more jobs than it would have if its structure were identical to the nation's structure. AMP also had 15 000 additional jobs than it would have if its structure were identical to the nation. The positive industrial mix means that the metropolitan economy grew faster than the national average, independently of national influence. Both in AML and in AMP, eight sectors grew faster than the national average (the remaining sectors grew slower): production and distribution of electricity, gas and water; construction; wholesale and retail trade; repair of cars, motorcycles and goods of personal and domestic use; accommodation and catering (restaurants and similar); real estate activities, renting and services rendered to businesses; education; health and social services; other collective, social and personal activities.

AML and AMP were favored because they have a more dynamic activity profile than MI's average, thus showing **strong growth potential**.

Local share

However, AML and AMP had lower growth than expected, considering their activity profile. Growth seems to have been **restrained**. Metropolitan areas created a smaller share of employment growth than the country on average. The analysis can also be used to examine how individual industries have fared competitively. Eleven economic sectors had negative local shares in AML in this period; whilst in AMP, we see that eight out of seventeen

economic sectors had positive local shares (Tables 13 and 14). AML created a greater share of employment growth in the following economic sectors: agriculture, animal production, hunting, forestry; fishery; extractive industries; construction; activities of families with domestic servants and families' production activities for personal use; international organizations and other extra-territorial institutions. AMP created a larger share of employment growth in the economic sectors: agriculture, animal production, hunting, forestry; fishery; accommodation and catering; transports, storage and communications; real estate activities, renting and services rendered to businesses; other collective, social and personal activities; activities of families with domestic servants and families' production activities for personal use; international organizations and other extra-territorial institutions.

In sum, AML had **fast growth, with strong potential, although restrained**; while AMP had **slow growth, with strong potential, and restrained**.

Shift-share analysis for Lisbon's Metropolitan Area, 1991-2001

1991/2001 Economic Activity Sector	Emp. Pop. Continent		Emp. Pop. AML		Change Emp. Pop. Cont.		Change Emp. Pop. AML (R)		SHARE of nat. growth (N)		SHIFT (or net. relat. growth)		Structural Shift (M) or industry mix (S=R-N-M) or local share		Competitive Shift share	
	1991	2001	1991	2001	n°	%	n°	%	n°	%	n°	%	n°	%	n°	%
Agriculture, animal production, hunting, and Fishery	390.054	197.766	15.338	12.235	-192.288	-49,3	-3.103	-20,2	1.955	12,7	-5.058	-33,0	-9.516	-62,0	4.458	29,1
Extractive industries	23.279	13.837	4.001	2.429	-9.442	-40,6	-1.572	-39,3	510	12,7	-2.082	-52,0	-2.133	-53,3	51	1,3
Manufacturing industries	15.970	17.875	1.062	1.528	1.905	11,9	466	43,9	135	12,7	331	31,1	-9	-0,8	339	32,0
Production and distribution of electricity, gas and water	1.059.283	994.547	214.499	171.607	-64.736	-6,1	-42.892	-20,0	27.336	12,7	-70.228	-32,7	-40.445	-18,9	-29.783	-13,9
Construction	25.249	32.168	8.758	11.146	6.919	27,4	2.388	27,3	1.116	12,7	1.272	14,5	1.284	14,7	-12	-0,1
Wholesale and retail trade; repair of cars, motorcycles and goods of personal and domestic use	417.784	537.086	91.475	124.935	119.302	28,6	33.460	36,6	11.658	12,7	21.802	23,8	14.464	15,8	7.338	8,0
Accommodation and catering (restaurants and similar)	599.821	738.588	199.104	221.675	138.767	23,1	22.571	11,3	25.374	12,7	-2.803	-1,4	20.688	10,4	-23.491	-11,8
Transports, storage and communications	164.551	241.475	60.902	80.251	76.924	46,7	19.349	31,8	7.762	12,7	11.587	19,0	20.709	34,0	-9.121	-15,0
Financial activities	180.078	198.963	82.782	88.307	18.885	10,5	5.525	6,7	10.550	12,7	-5.025	-6,1	-1.869	-2,3	-3.156	-3,8
Real estate activities, renting and services rendered to businesses	84.856	93.294	45.337	48.695	8.438	9,9	3.358	7,4	5.778	12,7	-2.420	-5,3	-1.270	-2,8	-1.150	-2,5
Public administration, defense and compulsory social security	123.230	261.991	63.350	130.699	138.761	112,6	67.349	106,3	8.073	12,7	59.276	93,6	63.261	99,9	-3.985	-6,3
Education	307.679	344.619	132.175	130.373	36.940	12,0	-1.802	-1,4	16.845	12,7	-18.647	-14,1	-976	-0,7	-17.671	-13,4
Health and social services	200.938	308.786	62.607	89.465	107.848	53,7	26.858	42,9	7.979	12,7	18.879	30,2	25.624	40,9	-6.745	-10,8
Other collective, social and personal	146.714	249.771	56.284	84.445	103.057	70,2	28.161	50,0	7.173	12,7	20.988	37,3	32.363	57,5	-11.375	-20,2
Activities of families with domestic servants and families' production activities for territorial institutions and other extra-	78.606	112.230	36.331	47.469	33.624	42,8	11.138	30,7	4.630	12,7	6.508	17,9	10.911	30,0	-4.403	-12,1
International institutions	128.281	107.061	40.877	38.892	-21.220	-16,5	-1.985	-4,9	5.209	12,7	-7.194	-17,6	-11.971	-29,3	4.777	11,7
Total	1.243	654	967	522	-589	-47,4	-445	-46,0	123	12,7	-568	-58,8	-581	-60,1	13	1,4
	3.947.616	4.450.711	1.115.849	1.284.673	503.095	12,7	168.824	15,1	142.207	12,7	26.617	2,4	120.533	10,8	-93.916	-8,4

Source: Statistics Portugal. Author's calculations.

Shift-share analysis for Oporto's Metropolitan Area, 1991-2001

1991/2001 Economic Activity Sector	Emp. Pop. Continent		Emp. Pop. AMP		Change Emp. Pop. Cont.		Change Emp. Pop. AMP (R)		SHARE of nat. growth (N)		SHIFT (or net. relat. growth)		Structural Shift (M) or industry mix (S=R-N-M) or local share		Competitive Shift	
	1991	2001	1991	2001	nr	%	nr	%	nr	%	nr	%	nr	%	nr	%
Agriculture, animal production, hunting, and fishery	390.054	197.766	13.517	8.949	-192.288	-49,3	-4.568	-33,8	1.723	12,7	-6.291	-46,5	-8.386	-62,0	2.096	15,5
Extractive industries	23.279	13.837	4.603	3.165	-9.442	-40,6	-1.438	-31,2	587	12,7	-2.025	-44,0	-2.454	-53,3	429	9,3
Manufacturing industries	15.970	17.875	895	800	1.905	11,9	-95	-10,6	114	12,7	-209	-23,4	-7	-0,8	-202	-22,5
Production and distribution of electricity, gas and water	1.059.283	994.547	260.227	214.513	-64.736	-6,1	-45.714	-17,6	33.164	12,7	-78.878	-30,3	-49.067	-18,9	-29.811	-11,5
Construction	25.249	32.168	4.015	5.110	6.919	27,4	1.095	27,3	512	12,7	583	14,5	589	14,7	-5	-0,1
Wholesale and retail trade; repair of cars, motorcycles and goods of personal and domestic use	417.784	537.086	61.135	73.618	119.302	28,6	12.483	20,4	7.791	12,7	4.692	7,7	9.666	15,8	-4.975	-8,1
Accommodation and catering (restaurants and similar)	599.821	738.588	111.101	135.565	138.767	23,1	24.464	22,0	14.159	12,7	10.305	9,3	11.544	10,4	-1.239	-1,1
Transports, storage and communications	164.551	241.475	21.736	33.749	76.924	46,7	12.013	55,3	2.770	12,7	9.243	42,5	7.391	34,0	1.852	8,5
Financial activities	180.078	198.963	27.548	31.618	18.885	10,5	4.070	14,8	3.511	12,7	559	2,0	-622	-2,3	1.181	4,3
Real estate activities, renting and services rendered to businesses	84.856	93.294	15.789	16.009	8.438	9,9	220	1,4	2.012	12,7	-1.792	-11,4	-442	-2,8	-1.350	-8,6
Public administration, defense and compulsory social security	123.230	261.991	21.511	46.106	138.761	112,6	24.595	114,3	2.741	12,7	21.854	101,6	21.481	99,9	373	1,7
Education	307.679	344.619	33.938	36.619	36.940	12,0	2.681	7,9	4.325	12,7	-1.644	-4,8	-251	-0,7	-1.394	-4,1
Health and social services	200.938	308.786	32.044	49.919	107.848	53,7	17.875	55,8	4.084	12,7	13.791	43,0	13.115	40,9	676	2,1
Other collective, social and personal activities of families with domestic servants and families' production activities for territorial institutions and other extra-territorial institutions	146.714	249.771	25.031	41.669	103.057	70,2	16.638	66,5	3.190	12,7	13.448	53,7	14.393	57,5	-945	-3,8
	78.606	112.230	12.781	18.651	33.624	42,8	5.870	45,9	1.629	12,7	4.241	33,2	3.838	30,0	403	3,2
Total	128.281	107.061	19.495	18.617	-21.220	-16,5	-878	-4,5	2.484	12,7	-3.362	-17,2	-5.709	-29,3	2.347	12,0
	1.243	654	75	64	-589	-47,4	-11	-14,7	10	12,7	-21	-27,4	-45	-60,1	25	32,7
	3.947.616	4.450.711	665.441	734.741	503.095	12,7	69.300	10,4	84.806	12,7	-15.506	-2,3	15.033	2,3	-30.539	-4,6

Source: Statistics Portugal. Author's calculations.

Appendix B. Trajectories of cities

Trajectories of cities 1991-2001
S1: Shrinking city in a shrinking municipality and a growing region – 33%

1. Amadora	2. Barreiro	3. Espinho	4. Gouveia	5. Mangualde	6. Porto
7. Santo Tirso	8. Tomar				

S2: Shrinking city in a shrinking municipality and a shrinking region – 17%

1. Elvas	2. Lamego	3. Lisbon	4. Portalegre		

S3: Shrinking city in growing municipality and a growing region –50%

1. Alcobaça	2. Almada	3. Fiães	4. Figueira da Foz	5. Lixa	6. Lourosa
7. Marinha Grande	8. Matosinhos	9. Odivelas	10. Penafiel	11. Silves	12. Vila Franca de Xira

G1: Fast growing city in a growing municipality and a declining region – 6%

1. Lagoa	2. Mirandela	3. Sines	4. Vila Real		

G2: Fast growing city in a growing municipality and a growing region –78%

1. Agualva-Cacém	2. Albufeira	3. Alverca do Ribatejo	4. Amora	5. Barcelos	6. Braga
7. Bragança	8. Caldas da Rainha	9. Cantanhede	10. Castelo Branco	11. Chaves	12. Entroncamento
13. Ermesinde	14. Esmoriz	15. Esposende	16. Faro	17. Fátima	18. Felgueiras
19. Fundão	20. Gafanha da Nazaré	21. Gondomar	22. Guimarães	23. Lagos	24. Leiria
25. Loulé	26. Loures	27. Maia	28. Marco de Canaveses	29. Montijo	30. Ovar
31. Paços de Ferreira	32. Paredes	33. Pombal	34. Portimão	35. Póvoa de Santa Iria	36. Póvoa de Varzim
37. Quarteira	38. Queluz	39. Rio Tinto	40. São João da Madeira	41. Seixal	42. Tavira
43. Torres Vedras	44. Trofa	45. Valongo	46. Vendas Novas	47. Vila do Conde	48. Vila Nova de Famalicão
49. Vila Nova de Gaia	50. Vila Real de Santo António	51. Viseu			

G3: Fast growing city in a shrinking municipality and a growing region – 3%

1. Fafe	2. Tondela				

G4: Fast growing city in a shrinking municipality and a shrinking region – 12%

1. Águeda	2. Freamunde	3. Guarda	4. Macedo de Cavaleiros	5. Miranda do Douro	6. Oliveira do Hospital
7. Valpaços	8. Vila Nova de Foz Côa				

Trajectories of cities 1991-2001(2008 for municipalities and regions)
S1: Shrinking city in a shrinking municipality and a growing region – 24%

1. Amadora	2. Barreiro	3. Espinho	4. Mangualde	5. Porto	6. Tomar

S2: Shrinking city in a shrinking municipality and a shrinking region – 20%

1. Elvas	2. Gouveia	3. Lamego	4. Lisbon	5. Portalegre

S3: Shrinking city in a growing municipality and a growing region – 52%

1. Alcobaça	2. Almada	3. Fiães	4. Figueira da Foz	5. Lixa	6. Lourosa
7. Marinha Grande	8. Odivelas	9. Penafiel	10. Santo Tirso	11. Silves	Vila Franca de Xira

S4: Shrinking city in growing municipality and a shrinking region – 4%

1. Matosinhos

G1: Fast growing city in a growing municipality and a declining region – 9%

1. Bragança	2. Chaves	3. Guarda	4. Mirandela	5. Sines	6. Vila Real

G2: Fast growing city in a growing municipality and a growing region – 78%

1. Agualva-Cacém	2. Águeda	3. Albufeira	4. Alverca do Ribatejo	5. Amora	6. Barcelos
7. Braga	8. Caldas da Rainha	9. Cantanhede	10. Entroncamento	11. Ermesinde	12. Esmoriz
13. Esposende	14. Fafe	15. Faro	16. Fátima	17. Felgueiras	18. Freamunde
19. Gafanha da Nazaré	20. Gondomar	21. Guimarães	22. Lagoa	23. Lagos	24. Leiria
25. Loulé	26. Loures	27. Maia	28. Marco de Canaveses	29. Montijo	30. Ovar
31. Paços de Ferreira	32. Paredes	33. Pombal	34. Portimão	35. Póvoa de Santa Iria	36. Póvoa de Varzim
37. Quarteira	38. Queluz	39. Rio Tinto	40. São João da Madeira	41. Seixal	42. Tavira
43. Torres Vedras	44. Trofa	45. Valongo	46. Vendas Novas	47. Vila do Conde	48. Vila Nova de Famalicão
49. Vila Nova de Gaia	50. Vila Real de Santo António	51. Viseu			

G3: Fast growing city in a shrinking municipality and a growing region – 2%

1. Tondela

G4: Fast growing city in a shrinking municipality and a shrinking region – 11%

1. Castelo Branco	2. Fundão	3. Macedo de Cavaleiros	4. Miranda do Douro	5. Oliveira do Hospital	6. Valpaços
7. Vila Nova de Foz Côa					

Appendix C. List of documents reviewed in the spatial planning instruments and policy diagnosis

City: Barreiro	
Resolution from the Ministers Council no. 26/94 from 4 May – Municipal Master Plan of Barreiro	Resolução do Conselho de Ministros n.º 26/94 de 4 de Maio – Plano Director Municipal do Barreiro
Law-Decree no. 35/96 from 26 November – Critical Area of Urban Regeneration and Renovation (CAURR): Old Barreiro	Decreto-Lei n.º 35/96 de 26 de Novembro – Área Crítica de Recuperação e Reconversão Urbanística (ACRRU): Barreiro Antigo
Program for Urban Rehabilitation of Old Barreiro 2008 (PROURB): Appendix 1, Urban Diagnose Appendix 2, Terms of reference for the Urban Rehabilitation Detailed Plan of Old Barreiro Appendix 3, Mobility Study for the “Old Barreiro District”	Programa de Reabilitação Urbana do Barreiro Antigo 2008 (PROURB): Anexo 1, Diagnóstico Urbano Anexo 2, Termos de referência para o Plano de Pormenor de Reabilitação Urbana do Barreiro Antigo Anexo 3, Estudo de Mobilidade para a “Zona Antiga do Barreiro”
Resolution from the Ministers Council nr. 68/2002 from 8 April – Regional Spatial Plan of the Metropolitan Area of Lisbon (PROT-AML) Resolution from the Ministers Council nr. 92/2008 from 5 June – Regional Spatial Plan of the Metropolitan Area of Lisbon PROT-AML – Proposal, Volume I (Approved Version) PROT-AML – Program for Execution, Means and Funding Sources, Volume II PROT-AML – Report, Technical Rationale Studies, Volume III (September 2001) PROT-AML – Report, Technical Rationale Studies, Volume IV (September 2001)	Resolução do Conselho de Ministros n.º 68/2002 de 8 de Abril – Plano Regional de Ordenamento do Território da Área Metropolitana de Lisboa (PROT-AML) Resolução do Conselho de Ministros n.º 92/2008 de 5 de Junho – Plano Regional de Ordenamento do Território da Área Metropolitana de Lisboa PROT-AML – Proposta, Volume I (Versão Aprovada) PROT-AML – Programa de Execução, Meios e Fontes de Financiamento, Volume II PROT-AML – Relatório, Estudos de Fundamentação Técnica, Volume III (Setembro de 2001) PROT-AML – Relatório, Estudos de Fundamentação Técnica, Volume IV (Setembro de 2001)

City: Elvas	
Resolution from the Ministers Council nr. 11/97 from 22 January – Municipal Master Plan of Elvas	Resolução do Conselho de Ministros n.º 11/97 de 22 de Janeiro – Plano Director Municipal de Elvas
Resolution from the Ministers Council nr. 122/2000 from 2 October – Municipal Master Plan of Elvas	Resolução do Conselho de Ministros n.º 122/2000 de 2 de Outubro – Plano Director Municipal de Elvas
Resolution from the Ministers Council nr. 57/2005 from 8 March – Municipal Master Plan of Elvas	Resolução do Conselho de Ministros n.º 122/2000 de 8 de Março – Plano Director Municipal de Elvas

City: Elvas	
Statement nr. 89/2001 from 22 March – Municipal Master Plan of Elvas Notice nr. 20694/2008 from 23 July – Municipal Master Plan of Elvas	Declaração n.º 89/2001 de 22 de Março – Plano Director Municipal de Elvas Aviso n.º 20694/2008 de 23 de Julho – Plano Director Municipal de Elvas
Decree nr. 39/98 from 29 October – CAURR: Historic Center of Elvas	Decreto-Lei n.º 39/98 de 29 de Outubro – ACRRU: Centro Histórico de Elvas
Resolution from the Ministers Council nr. 28/2006 from 23 March – Regional Spatial Plan of Alentejo Corrigendum Statement nr. 28-A/2006 from 19 May – Regional Spatial Plan of Alentejo (PROTA) Regional diagnosis (PROTA) November 2007 Fundamental Report (PROTA) (proposal for public discussion) March 2009 Supplementary report (PROTA) (proposal for public discussion) March 2009	Resolução do Conselho de Ministros n.º 28/2006 de 23 de Março – Plano Regional de Ordenamento do Território do Alentejo Declaração de Rectificação n.º 28-A/2006 de 19 de Maio – Plano Regional de Ordenamento do Território do Alentejo (PROTA) Diagnóstico Regional do PROTA de Novembro 2007 Relatório Fundamental do PROTA (Proposta para discussão pública) de Março 2009 Relatório Complementar do PROTA (Proposta para discussão pública) de Março 2009

City: Espinho	
Resolution from the Ministers Council nr. 36/94 from 20 May – Municipal Master Plan of Espinho	Resolução do Conselho de Ministros n.º 36/94 de 20 de Maio – Plano Director Municipal de Espinho
Municipal Master Plan of Espinho Revision (May 2005) Regulation Final Proposal Justificatory document Socio-economic characterization Housing Facilities Urban Green Spaces Urban Network	Revisão do Director Municipal (PDM) de Espinho (Maio de 2005): Proposta Final de Regulamento do PDM de Espinho Documento justificativo para a revisão do PDM Caracterização Sócio-Económica Habitação Equipamentos Espaços Verdes Urbanos Rede Urbana
Terms of reference for the Regional Spatial Plan for the North Region (July 2006) Regional Spatial Plan for the North (PROT-NORTE) – Report (July 2009) PROT-NORTE – Executive Summary (July 2009) PROT-NORTE – Plan Proposal (July 2009) PROT-NORTE – Plan Proposal (July 2009)	Termos de referência para o Plano Regional de Ordenamento do Território para a Região do Norte (Julho de 2006) Plano Regional de Ordenamento do Território do Norte (PROT-NORTE) – Relatório (Julho de 2009) PROT-NORTE – Sumário Executivo (Julho de 2009)

City: Espinho	
PROT-NORTE – Implementation Program (July 2009) PROT-NORTE – Stage I, Complementary Studies of Territorial Characterization and Regional Diagnosis, Urban Environment: Final Report (May 2007) PROT-NORTE – Stage I, Complementary Studies of Territorial Characterization and Regional Diagnosis, Culture (June 2007) PROT-NORTE – Stage II, Spatial framework strategic options – 1st Proposal for the Territorial Model, Sub-Regional Focus: Minho-Lima, Elements for the Territorial Model, 1st version (July 2007) PROT-NORTE – Stage II, Spatial framework strategic options – 1st Proposal for the Territorial Model, Sub-Regional Focus: Trás-Os-Montes and Alto Douro (July 2007) PROT-NORTE – Synthesis Report - Territorial model: Metropolitan arch (March 2009) PROT-NORTE – Urban System (October 2008)	PROT-NORTE – Proposta de Plano (Julho de 2009) PROT-NORTE – Programa de Execução (Julho de 2009) PROT-NORTE – Fase I, Estudos Complementares de Caracterização Territorial e Diagnóstico Regional, Ambiente Urbano: Relatório Final (Maio de 2007) PROT-NORTE – Fase I, Estudos Complementares de Caracterização Territorial e Diagnóstico Regional, Cultura (Junho de 2007) PROT-NORTE – Fase II, Opções Estratégicas de Base Territorial – 1^a Proposta de Modelo Territorial, Enfoque Sub-Regional: Minho-Lima: Elementos para o Modelo Territorial, 1^a versão (Julho de 2007) PROT-NORTE – Fase II, Opções Estratégicas de Base Territorial – 1^a Proposta de Modelo Territorial, Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro (Junho de 2007) PROT-NORTE – Relatório Síntese - Modelo Territorial: Arco Metropolitano (Março de 2009) PROT-NORTE – Sistema Urbano (Outubro de 2008)

City: Lamego	
Resolution from the Ministers Council nr. 46/94 from 23 June – Municipal Master Plan of Lamego Resolution from the Ministers Council nr. 71/2002 from 9 April – Municipal Master Plan of Lamego	Resolução do Conselho de Ministros n.º 46/94 de 23 de Junho – Plano Director Municipal de Lamego Resolução do Conselho de Ministros n.º 71/2002 de 9 de Abril – Plano Director Municipal de Lamego
Regulatory Decree nr. 35/96 from 26 November – Critical Area of Urban Regeneration and Renovation (CAURR): Castle Area and Sé Area	Decreto Regulamentar n.º 23/79 de 21 de Maio – Área Crítica de Recuperação e Reconversão Urbanística (ACRRU): Zona do Castelo e suas Imediações e Zona da Sé
Regional Spatial Plan for the North Region (see City of Espinho)	Plano Regional de Ordenamento do Território para a Região do Norte

City: Lisbon	
Resolution from the Ministers Council nr. 94/94 from 29 September – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 94/94 de 29 de Setembro – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 104/2003 from 8 August – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 104/2003 de 8 de Agosto – Plano Director Municipal de Lisboa
Statement nr. 257/2003 from 19 August – Municipal Master Plan of Lisbon	Declaração n.º 257/2003 de 19 de Agosto – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 20/2004 from 3 March – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 20/2004 de 3 de Março – Plano Director Municipal de Lisboa
Statement nr. 51/2004 from 16 March – Municipal Master Plan of Lisbon	Declaração n.º 51/2004 de 16 de Março – Plano Director Municipal de Lisboa
Statement nr. 86/2006 from 29 May – Municipal Master Plan of Lisbon	Declaração n.º 86/2006 de 29 de Maio – Plano Director Municipal de Lisboa
Statement nr. 87/2006 from 29 May – Municipal Master Plan of Lisbon	Declaração n.º 87/2006 de 29 de Maio – Plano Director Municipal de Lisboa
Notice nr. 7889/2008 from 13 March – Municipal Master Plan of Lisbon	Notice nr. 7889/2008 from 13 March – Municipal Master Plan of Lisbon
Notice nr. 7890/2008 from 13 March – Municipal Master Plan of Lisbon	Aviso n.º 7890/2008 de 13 de Março – Plano Director Municipal de Lisboa
Notice nr. 7891/2008 from 13 March – Municipal Master Plan of Lisbon	Aviso n.º 7891/2008 de 13 de Março – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 121/2008 from 6 August – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 121/2008 de 6 de Agosto – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 145-A/2008 from 1 October – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 145-A/2008 de 1 de Outubro – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 153/2008 from 14 October – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 153/2008 de 14 de Outubro – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 192/2008 from 11 December – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 192/2008 de 11 de Dezembro de – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 51/2009 from 17 July – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 51/2009 de 17 de Julho – Plano Director Municipal de Lisboa
Resolution from the Ministers Council nr. 52/2009 from 17 July – Municipal Master Plan of Lisbon	Resolução do Conselho de Ministros n.º 52/2009 de 17 de Julho – Plano Director Municipal de Lisboa
Municipal Master Plan of Lisbon Revision (July 2007)	Revisão do Director Municipal (PDM) de Lisboa (Julho de 2007):
Regulation Proposal for the Municipal Master	Proposta de Regulamento do PDM de Lisboa

City: Lisbon	
Plan of Lisbon Revision (provisional version) Colecção de Estudos Urbanos – Lisboa XXI – 2: Economic Development and Urban Competitiveness in Lisbon Colecção de Estudos Urbanos – Lisboa XXI – 3: Housing and Real Estate in the Metropolitan Area of Lisbon Colecção de Estudos Urbanos – Lisboa XXI – 4: Socio-urban Diagnostic of the city of Lisbon	(versão provisória) Colecção de Estudos Urbanos – Lisboa XXI – 2: Desenvolvimento Económico e Competitividade Urbana de Lisboa Colecção de Estudos Urbanos – Lisboa XXI – 3: Habitação e Mercado Imobiliário na Área Metropolitana de Lisboa Colecção de Estudos Urbanos – Lisboa XXI – 4: Diagnóstico Sócio-urbanístico da cidade de Lisboa
Major Plan Options 2009-2012	Grandes Opções do Plano 2009-2012
Regional Spatial Plan of the Metropolitan Area of Lisbon (PROT-AML) (see City of Barreiro)	Plano Regional de Ordenamento do Território da Área Metropolitana de Lisboa (PROT-AML)

City: Matosinhos	
Municipal Master Plan of Matosinhos – Report (June 1991) Dispatch nr. 92/92 from 3 September – Municipal Master Plan of Matosinhos Statement nr. 334/2001 from 16 November – Municipal Master Plan of Matosinhos	Plano Director Municipal de Matosinhos – Relatório (Junho de 1991) Despacho n.º 92/92 de 3 de Setembro – Plano Director Municipal de Matosinhos Declaração n.º 334/2001 de 16 de Novembro – Plano Director Municipal de Matosinhos
Resolution from the Ministers Council nr. 10/2002 from 15 January – Municipal Master Plan of Matosinhos	Resolução do Conselho de Ministros n.º 10/2002 de 15 de Janeiro – Plano Director Municipal de Matosinhos
Regional Spatial Plan for the North Region (see City of Espinho)	Plano Regional de Ordenamento do Território para a Região do Norte

City: Oporto	
Resolution from the Ministers Council nr. 19/2006 from 3 February – Municipal Master Plan of Oporto Revision	Resolução do Conselho de Ministros n.º 19/2006 de 3 de Fevereiro – Revisão do Plano Director Municipal do Porto
Statement nr. 236/2002 from 29 July – Detailed Plan of Antas	Declaração n.º 236/2002 de 29 de Julho – Plano de Pormenor das Antas
Regulatory Decree nr. 54/85 from 12 August – CAURR: Historic Center of the City of Oporto Regulatory Decree nr. 14/94 from 17 June – CAURR: Historic Center of the City of Oporto Regulatory Decree nr. 11/2000 from 24 August – CAURR: Historic Center of the City of Oporto	Decreto Regulamentar n.º 54/85 de 12 de Agosto – ACRRU: Centro Histórico da Cidade do Porto Decreto Regulamentar n.º 14/94 de 17 de Junho – ACRRU: Centro Histórico da Cidade do Porto Decreto Regulamentar n.º 11/2000 de 24 de Agosto – ACRRU: Centro Histórico da Cidade do Porto

City: Oporto	
Porto Vivo SRU Masterplan Executive Sumary (April 2005)	Síntese Executiva do Masterplan da Porto Vivo SRU (Abril de 2005)
Management Plan for the World Heritage Historic Center of Oporto – Volumes I and II (December 2008)	Plano de Gestão do Centro Histórico do Porto Património Mundial– Volumes I e II (Dezembro de 2008)
Regional Spatial Plan for the North Region (see City of Espinho)	Plano Regional de Ordenamento do Território para a Região do Norte

City: Tomar	
Resolution from the Ministers Council nr. 100/94 from 8 October – Municipal Master Plan of Tomar	Resolução do Conselho de Ministros n.º 100/94 de 8 de Outubro – Plano Director Municipal de Tomar
Resolution from the Ministers Council nr. 102/97 from 1 July – Municipal Master Plan of Tomar	Resolução do Conselho de Ministros n.º 102/97 de 1 de Julho – Plano Director Municipal de Tomar
Statement nr. 51/2000 from 25 February – Municipal Master Plan of Tomar	Declaração n.º 51/2000 de 25 de Fevereiro – Plano Director Municipal de Tomar
Statement nr. 214/2001 from 5 July – Municipal Master Plan of Tomar	Declaração n.º 214/2001 de 5 de Julho – Plano Director Municipal de Tomar
Statement nr. 83/2003 from 3 March – Municipal Master Plan of Tomar	Declaração n.º 83/2003 de 3 de Março – Plano Director Municipal de Tomar
Decree nr. 38/99 from 7 October – CAURR: Historic Core of Tomar	Decreto n.º 38/99 de 7 de Outubro – ACRRU: Núcleo Histórico de Tomar
Resolution from the Ministers Council nr. 30/2006 from 23 March – Regional Spatial Plan for the Oeste and Vale do Tejo PROT-OVT – Strategic Diagnosis Public Discussion Version (June 2008) PROT-OVT – Executive Summary Public Discussion Version (June 2008) PROT-OVT – Sector Strategic Diagnosis/Overview: Regional Structure of Environmental Protection and Enhancement (March 2007) PROT-OVT – Sector Strategic Diagnosis/Overview: Urban System and Facilities (May 2008) PROT-OVT – Sector Strategic Diagnosis/Overview: Transport System (May 2008) PROT-OVT – Implementation Program Public Discussion Version (June 2008)	Resolução do Conselho de Ministros n.º 30/2006 de 23 de Março – Plano Regional de Ordenamento do Território do Oeste e Vale do Tejo (PROT-OVT) PROT-OVT – Diagnóstico Estratégico Versão para Discussão Pública (Junho 2008) PROT-OVT – Relatório Versão para Discussão Pública (Junho 2008) PROT-OVT – Sumário Executivo Versão para Discussão Pública (Junho 2008) PROT-OVT – Diagnóstico Estratégico/Visão Sectorial: Estrutura Regional de Protecção e Valorização Ambiental (Março de 2007) PROT-OVT – Diagnóstico Estratégico/Visão: Sistema Urbano e Equipamentos (Maio de 2008) PROT-OVT – Diagnóstico Estratégico/Visão: Sistema de Transportes (Maio de 2008) PROT-OVT – Programa de Execução Versão para Discussão Pública (Junho de 2008)

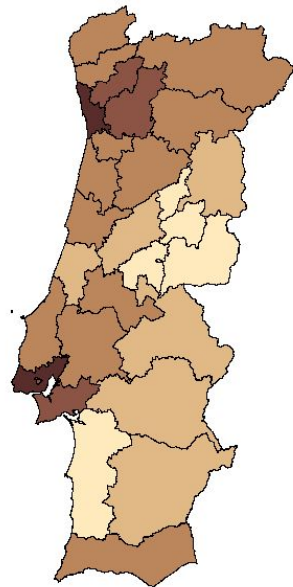
City: Vila Franca de Xira	
Resolution from the Ministers Council nr. 16/93 from 17 March – Municipal Master Plan of Vila Franca de Xira Statement nr. 259/2001 from 30 August – Municipal Master Plan of Vila Franca de Xira Resolution from the Ministers Council nr. 43/2004 from 1 April – Municipal Master Plan of Vila Franca de Xira Statement nr. 209/2004 from 6 August – Municipal Master Plan of Vila Franca de Xira Statement nr. 63/2005 from 15 March – Municipal Master Plan of Vila Franca de Xira	Resolução do Conselho de Ministros n.º 16/93 de 17 de Março – Plano Director Municipal de Vila Franca de Xira Declaração n.º 259/2001 de 30 de Agosto – Plano Director Municipal de Vila Franca de Xira Resolução do Conselho de Ministros n.º 43/2004 de 1 de Abril – Plano Director Municipal de Vila Franca de Xira Declaração n.º 209/2004 de 6 de Agosto – Plano Director Municipal de Vila Franca de Xira Declaração n.º 63/2005 de 15 de Março – Plano Director Municipal de Vila Franca de Xira
Decree nr. 5/99 from 18 February – CAURR: Old Area of Cachoeiras	Decreto n.º 5/99 de 18 de Fevereiro – ACRRU: Zona Antiga de Cachoeiras
Decree nr. 6/99 from 22 February – CAURR: Old Area of Vila Franca de Xira	Decreto n.º 6/99 de 22 de Fevereiro – ACRRU: Zona Antiga de Vila Franca de Xira
Decree nr. 7/99 from 22 February – CAURR: Waterfront Area of Vila Franca de Xira	Decreto n.º 7/99 de 22 de Fevereiro – ACRRU: Zona Ribeirinha de Vila Franca de Xira
Decree nr. 8/99 from 22 February – CAURR: Old Area of Alhandra	Decreto n.º 8/99 de 22 de Fevereiro – ACRRU: Zona Antiga de Alhandra
Decree nr. 16/2004 from 23 July – CAURR: Area of Bom Sucesso/Arcena	Decreto n.º 16/2004 de 23 de Julho – ACRRU: Zona Bom Sucesso/Arcena
Decree nr. 30/2007 from 29 November – CAURR: Area of Bom Sucesso/Arcena	Decreto n.º 30/2007 de 29 de Novembro – ACRRU: Zona Bom Sucesso/Arcena
Municipal Master Plan of Vila Franca de Xira 1st Revision Main Goals Municipal Master Plan of Vila Franca de Xira 1st Revision – Synthesis Diagnose (August 2004, revised in March 2006)	Principais Objectivos da 1ª Revisão do PDM 1ª Revisão do Plano Director Municipal de Vila Franca de Xira – Síntese do Diagnóstico (Agosto de 2004, revisto em Março de 2006)
Strategic Plan of the Council of Vila Franca de Xira – Diagnosis and Development and Strategic Action Perspectives (September 2003) Strategic Plan of the Council of Vila Franca de Xira – Program for Territorial and Environmental Action	Plano Estratégico do Concelho de Vila Franca de Xira – Diagnóstico e Perspectivas de Desenvolvimento e de Actuação Estratégica (Setembro de 2003) Plano Estratégico do Concelho de Vila Franca de Xira – Programa de Actuação Territorial e Ambiental
Regional Spatial Plan of the Metropolitan Area of Lisbon (PROT-AML) (see City of Barreiro)	Plano Regional de Ordenamento do Território da Área Metropolitana de Lisboa (PROT-AML)

Macro Level: National Programs, Dossiers and Other Documents	
Priority from the Portuguese presidency for the Environment, Spatial Planning and Regional Development (2007-07-02)	Prioridades da presidência portuguesa nr Ambiente, Ordenamento Territorial e Desenvolvimento Regional (2007-07-02)
Strategic National Reference Framework 2007-2013 (2007-01-16)	Quadro de Referência Estratégico Nacional 2007-2013 (2007-01-16)
National Program for Spatial Planning Policies (2007-07-02)	Programa Nacional da Política de Ordenamento do Território (2006-05-17)
Urban Development and Reintegration Interventions in Deprived Neighborhoods (2006-10-02)	Operações de Qualificação e Reinserção Urbana de Bairros Críticos (2006-10-02)
Green paper on European territorial cohesion (2009-02-09)	Livro verde da coesão territorial europeia (2009-02-09)
South Waterside Arch Project (2008-09-12)	Projecto do Arco Ribeirinho Sul (2008-09-12)
Action Plan for the Coast (2008-02-21)	Plano de Acção para o Litoral (2008-02-21)
Preparatory Actions of Urban Networks for Competitiveness and Innovation (2007-12-17)	Acções preparatórias de Redes Urbanas para a Competitividade e a Inovação (2007-12-17)
Cities' Policies, Polis XXI (2007-04-11)	Política de Cidades, Polis XXI (2007-04-11)
Priorities for the Coast (2006-12-20)	Prioridades para o Litoral (2006-12-20)
Guidelines for the Strategic National Reference Framework and operational programs 2007-2013 (2006-03-10)	Orientações para o Quadro de Referência Estratégico Nacional e programas operacionais 2007-2013 (2006-03-10)
Framework for the Integrated Management Strategy of the National Coastal Zone (2006-01-26)	Bases para a Estratégia de Gestão Integrada da Zona Costeira Nacional (2006-01-26)
Program from the XVII Constitutional Government (2005-2009)	Programa do XVII Governo Constitucional (2005-2009)

Regional Framework	PROT-AML	PROTA	PROT-NORTE	PROT-OVT
City				
Barreiro	X			
Elvas		X		
Espinho			X	
Lamego			X	
Lisbon	X			
Matosinhos			X	
Oporto			X	
Tomar				X
Vila Franca de Xira				X

Appendix D. Example of variables/indicators mapping

Resident population 1981 by NUTS-3

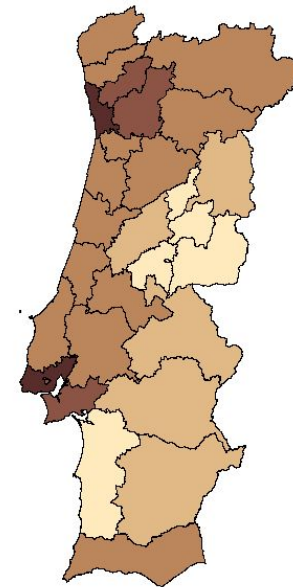


Resident population; 1981 (nr.)

56991 - 103141
103142 - 215816
215817 - 354694
354695 - 584648
584649 - 1853729



Resident population 1991 by NUTS-3

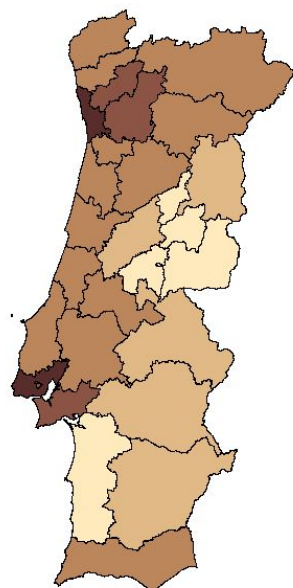


Resident population; 1991 (nr.)

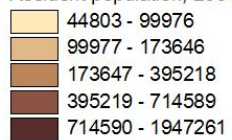
50801 - 98519
98520 - 173216
173217 - 353267
353268 - 640493
640494 - 1880215



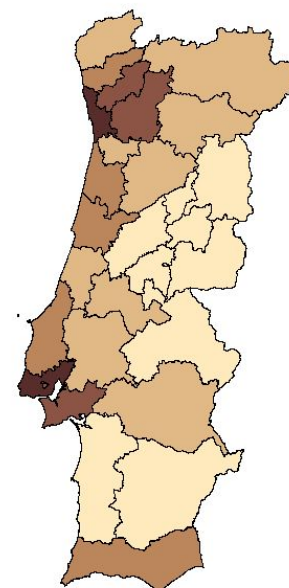
Resident population 2001 by NUTS-3



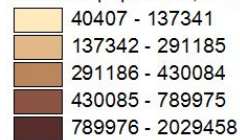
Resident population; 2001 (nr.)



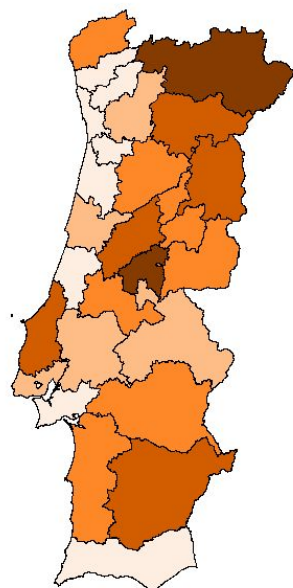
Resident population 2008 by NUTS-3



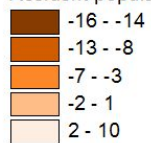
Resident population; 2008 (nr.)



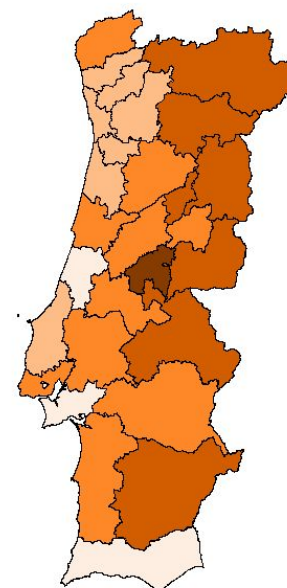
Resident population growth rate 1981-1991 by NUTS-3



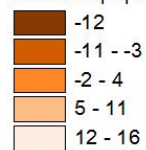
Resident population growth rate; 1981-1991 (%)



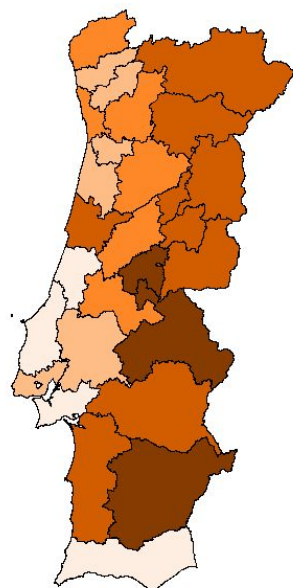
Resident population growth rate 1991-2001 by NUTS-3



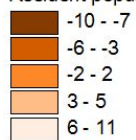
Resident population growth rate; 1991-2001 (%)



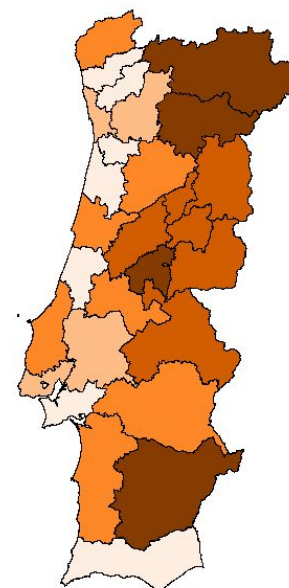
Resident population growth rate 2001-2008 by NUTS-3



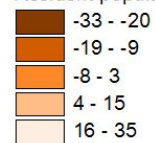
Resident population growth rate; 2001-2008 (%)



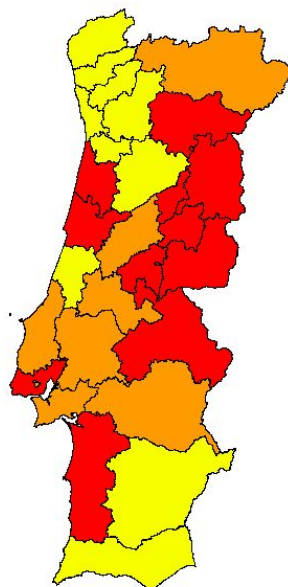
Resident population growth rate 1981-2008 by NUTS-3



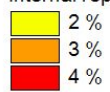
Resident population growth rate; 1981-2008 (%)



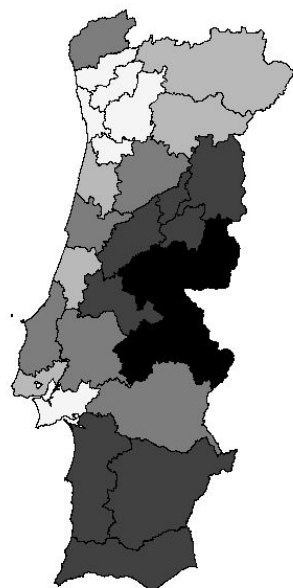
Internal repulsion rate; 2001 by NUTS-3



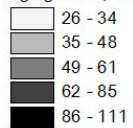
Internal repulsion rate; 2001 (%)



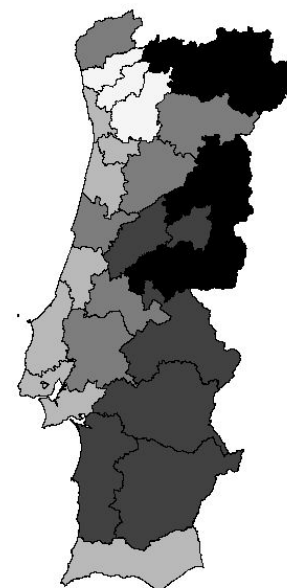
Aging index 1981 by NUTS-3



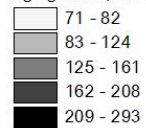
Aging index; 1981 (nr.)



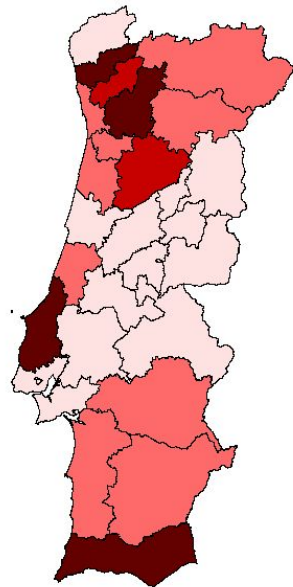
Aging index 2008 by NUTS-3



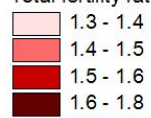
Aging index; 2008 (nr.)



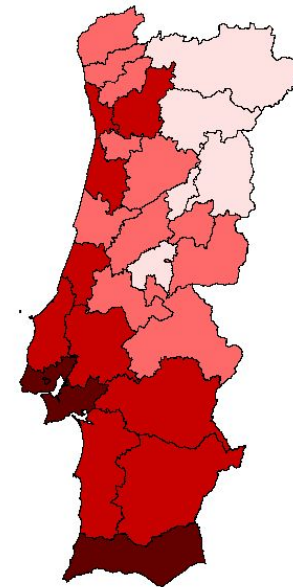
Total fertility rate 1992 by NUTS-3



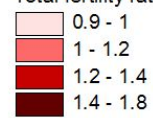
Total fertility rate; 1992



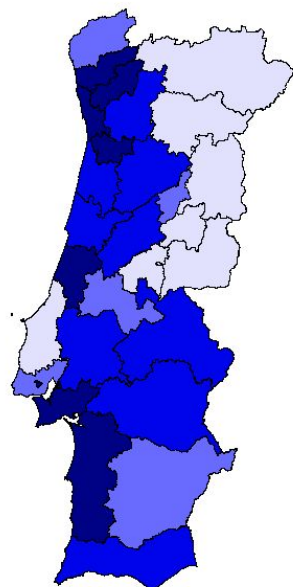
Total fertility rate 2008 by NUTS-3



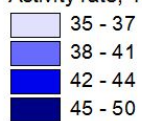
Total fertility rate; 2008



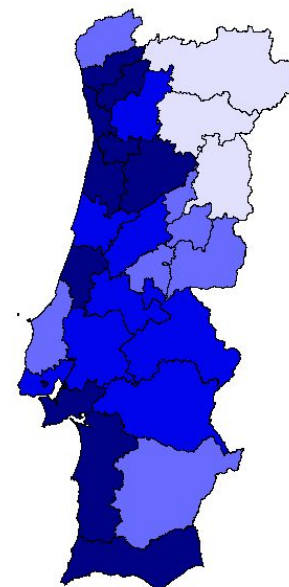
Activity rate 1991 by NUTS-3



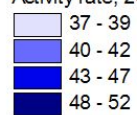
Activity rate; 1991 (%)



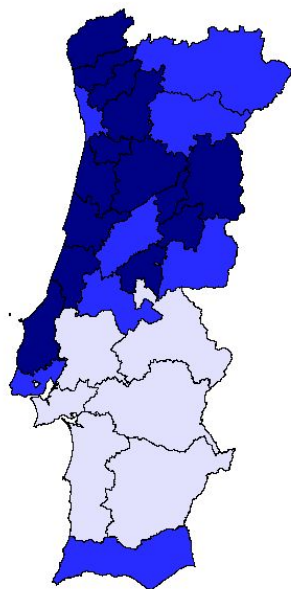
Activity rate 2001 by NUTS-3



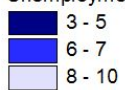
Activity rate; 2001 (%)



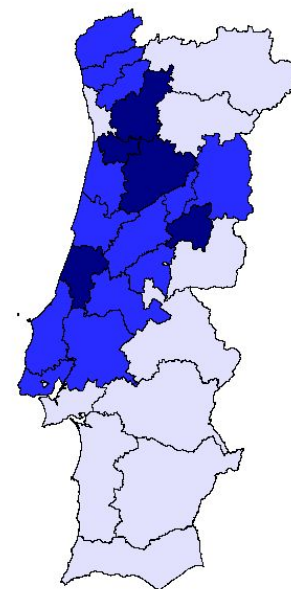
Unemployment rate 1991 by NUTS-3



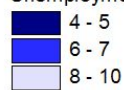
Unemployment rate; 1991 (%)



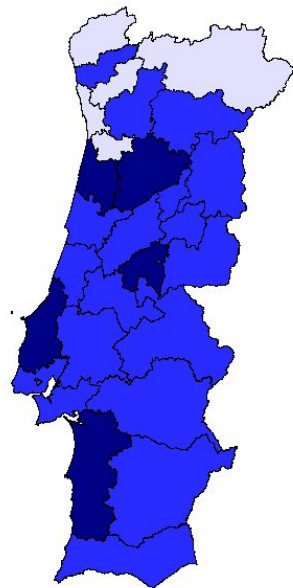
Unemployment rate 2001 by NUTS-3



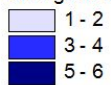
Unemployment rate; 2001 (%)



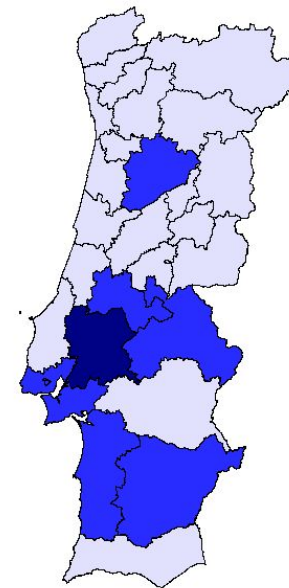
Change in the activity rate 1991-2001 by NUTS-3



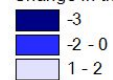
Change in the activity rate; 1991-2001 (pp)



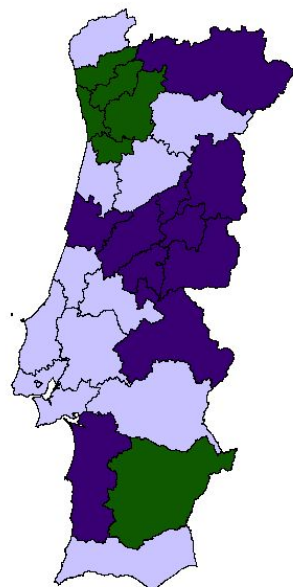
Change in the unemployment rate 1991-2001 by NUTS-3



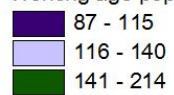
Change in the unemployment rate; 1991-2001 (pp)



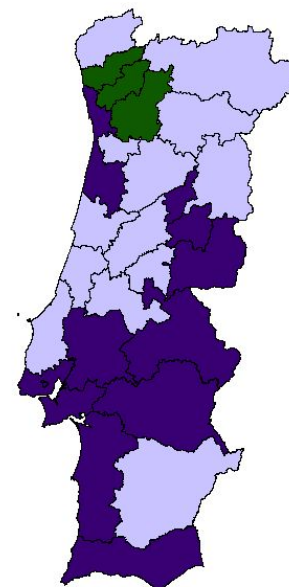
Working age population renewal ratio 2001 by NUTS-3



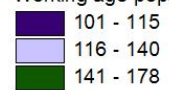
Working age population renewal ratio; 2001 (nr.)



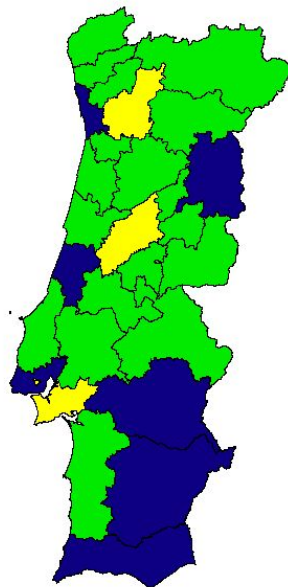
Working age population renewal ratio 2006 by NUTS-3



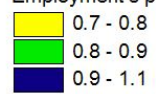
Working age population renewal ratio; 2006 (nr.)



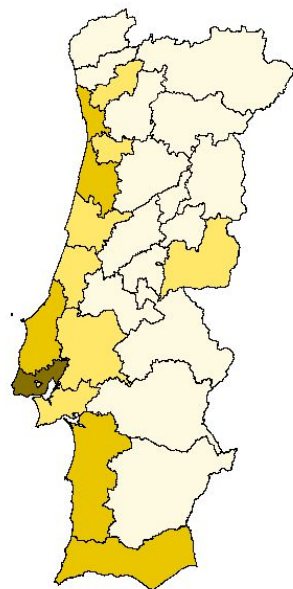
Employment's polarization index 2001 by NUTS-3



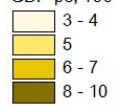
Employment's polarization index; 2001 (nr.)



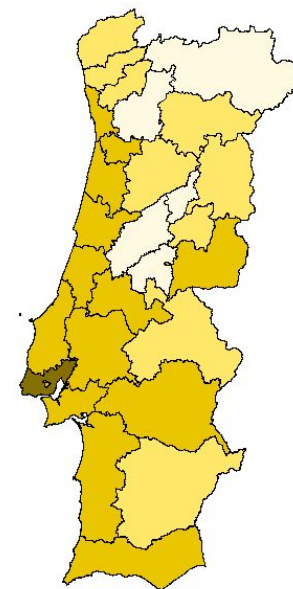
GDP pc 1991 by NUTS-3



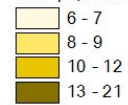
GDP pc; 1991 (thousands of Euros)



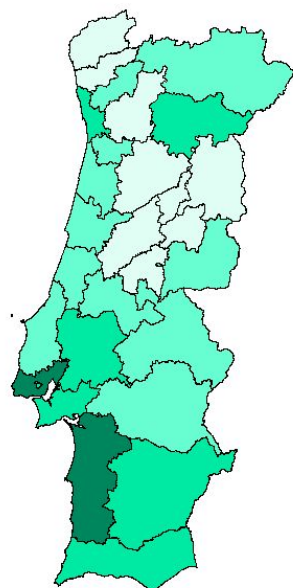
GDP pc 2001 by NUTS-3



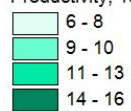
GDP pc; 2001 (thousands of Euros)



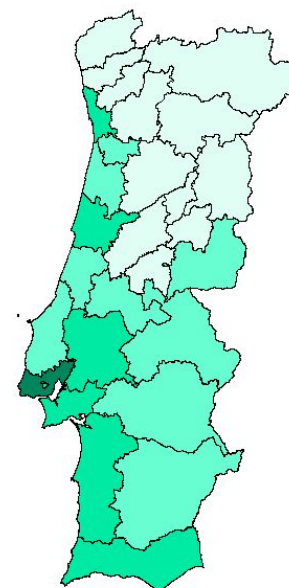
Productivity 1991 by NUTS-3



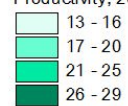
Productivity; 1991 (millions of Euros)



Productivity 2001 by NUTS-3

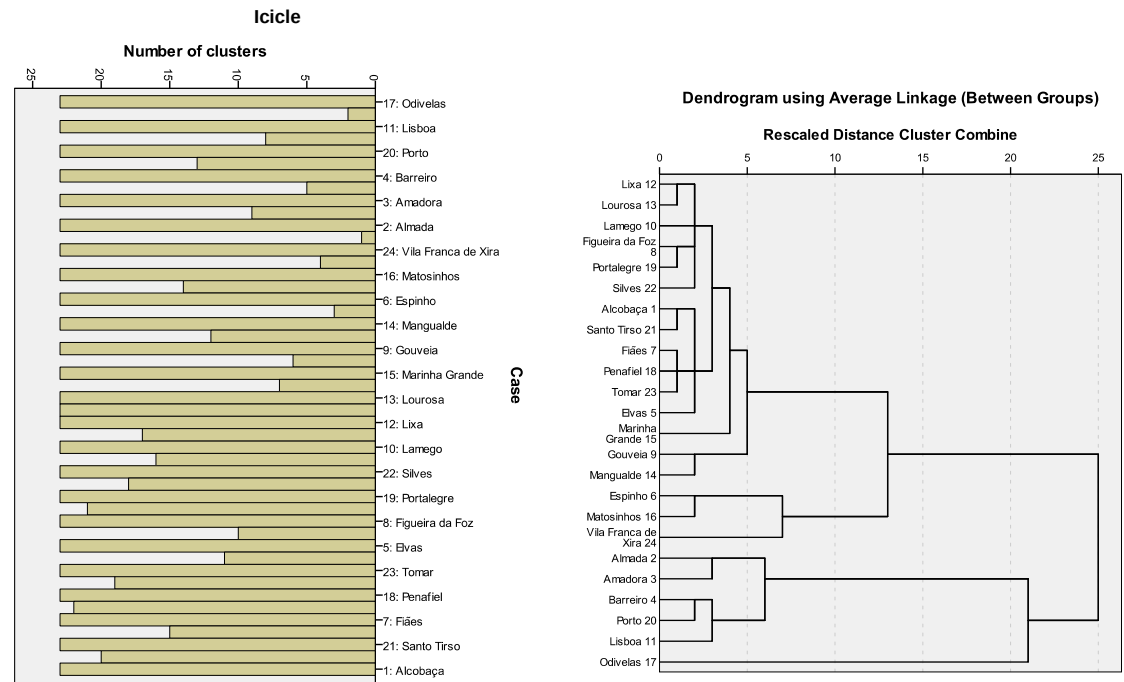


Productivity; 2001 (millions of Euros)

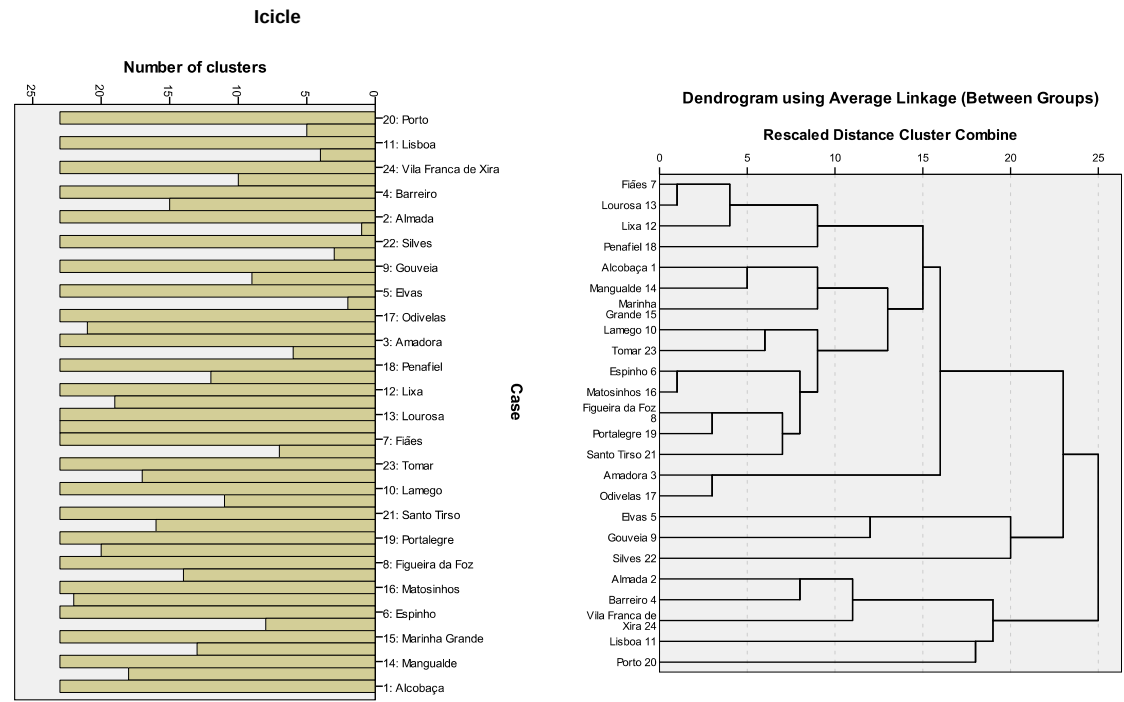


Appendix E. Example of SPSS outputs

Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **none**
Other: **including population density**

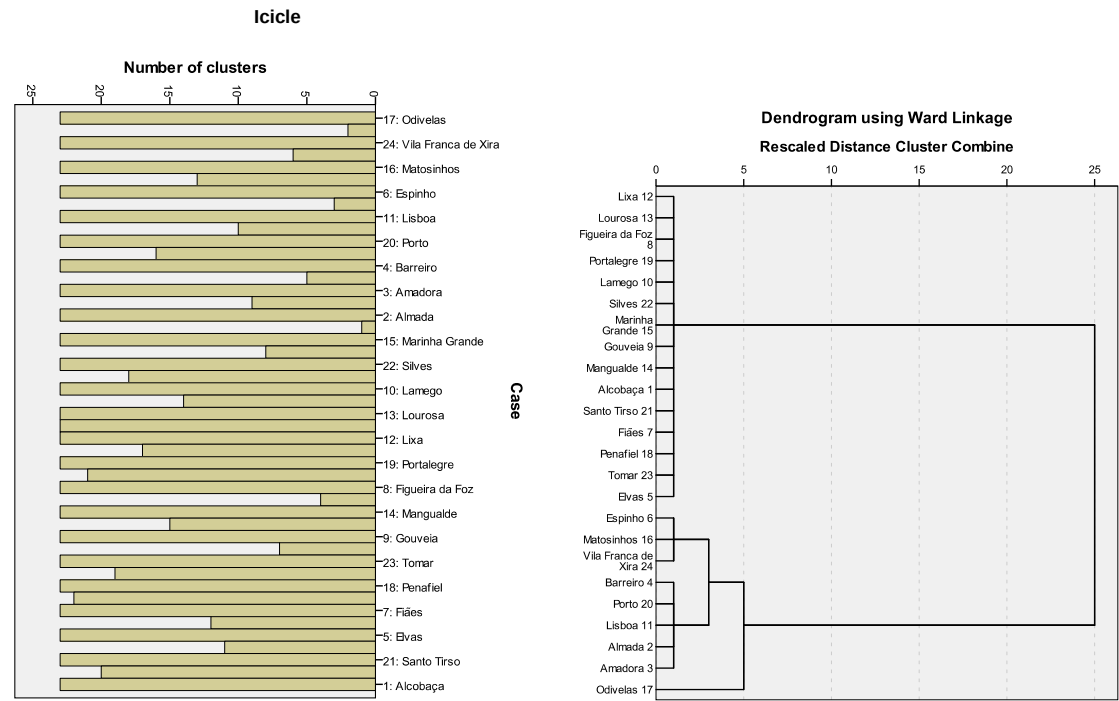


Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **z scores**
Other: **including population density**

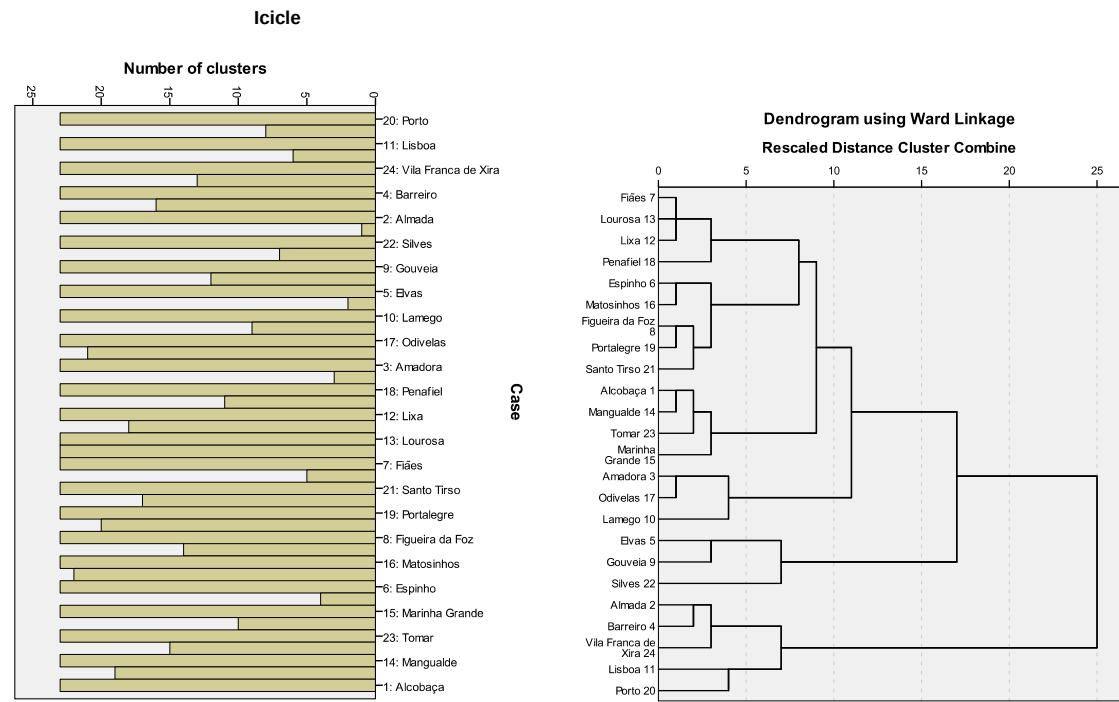


CITY

Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **including population density**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **including population density**



Cluster Analysis Method: **K-means**
 Number of Clusters: **2**
 Standardization: **none**
 Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	677,849
2	Almada	2	359,745
3	Amadora	2	503,404
4	Barreiro	2	920,639
5	Elvas	1	501,757
6	Espinho	1	1864,554
7	Fiães	1	301,932
8	Figueira da Foz	1	53,247
9	Gouveia	1	909,463
10	Lamego	1	192,188
11	Lisboa	2	408,455
12	Lixa	1	124,638
13	Lourosa	1	136,269
14	Mangualde	1	1173,528
15	Marinha Grande	1	512,749
16	Matosinhos	1	2168,117
17	Odivelas	2	4087,204
18	Penafiel	1	250,491
19	Portalegre	1	161,932
20	Porto	2	755,181
21	Santo Tirso	1	521,134
22	Silves	1	170,222
23	Tomar	1	359,867
24	Vila Franca de Xira	2	2353,367

Number of Cases in each Cluster

Cluster	1	17,000
	2	7,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
 Number of Clusters: **3**
 Standardization: **none**
 Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	542,840
2	Almada	3	946,636
3	Amadora	3	1452,048
4	Barreiro	3	206,163
5	Elvas	1	405,827
6	Espinho	1	1999,725
7	Fiães	1	172,840
8	Figueira da Foz	1	105,084
9	Gouveia	1	775,145
10	Lamego	1	324,246
11	Lisboa	3	706,851
12	Lixa	1	201,715
13	Lourosa	1	132,755
14	Mangualde	1	1038,145
15	Marinha Grande	1	645,615
16	Matosinhos	3	2172,807
17	Odivelas	2	,000
18	Penafiel	1	134,907
19	Portalegre	1	112,980
20	Porto	3	448,644
21	Santo Tirso	1	386,260
22	Silves	1	229,908
23	Tomar	1	232,820
24	Vila Franca de Xira	3	1326,852

Number of Cases in each Cluster

Cluster	1	16,000
	2	1,000
	3	7,000
	Valid	24,000
	Missing	,000

CITY

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **none**
Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	410,665
2	Almada	4	367,272
3	Amadora	4	791,607
4	Barreiro	4	583,246
5	Elvas	1	330,963
6	Espinho	2	555,484
7	Fiães	1	77,903
8	Figueira da Foz	1	233,955
9	Gouveia	1	643,672
10	Lamego	1	456,761
11	Lisboa	4	198,196
12	Lixa	1	320,651
13	Lourosa	1	232,444
14	Mangualde	1	905,517
15	Marinha Grande	1	778,138
16	Matosinhos	2	224,571
17	Odivelas	3	,000
18	Penafiel	1	99,887
19	Portalegre	1	184,471
20	Porto	4	463,177
21	Santo Tirso	1	255,630
22	Silves	1	334,385
23	Tomar	1	119,895
24	Vila Franca de Xira	2	777,378

Number of Cases in each Cluster		
Cluster	1	15,000
	2	3,000
	3	1,000
	4	5,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **z scores**
Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	2,801
2	Almada	1	2,527
3	Amadora	2	2,666
4	Barreiro	1	2,439
5	Elvas	2	3,670
6	Espinho	2	1,631
7	Fiães	2	2,692
8	Figueira da Foz	2	2,342
9	Gouveia	2	4,129
10	Lamego	2	3,213
11	Lisboa	1	3,295
12	Lixa	2	2,737
13	Lourosa	2	3,009
14	Mangualde	2	1,690
15	Marinha Grande	2	3,892
16	Matosinhos	2	2,511
17	Odivelas	2	4,246
18	Penafiel	2	2,850
19	Portalegre	2	2,242
20	Porto	1	2,903
21	Santo Tirso	2	1,970
22	Silves	2	5,061
23	Tomar	2	2,552
24	Vila Franca de Xira	1	2,331

Number of Cases in each Cluster		
Cluster	1	5,000
	2	19,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**

Number of Clusters: **3**

Standardization: **z scores**

Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	2,851
2	Almada	2	2,406
3	Amadora	1	2,370
4	Barreiro	2	2,518
5	Elvas	3	2,399
6	Espinho	1	1,735
7	Fiães	1	2,442
8	Figueira da Foz	3	2,382
9	Gouveia	3	2,309
10	Lamego	1	3,188
11	Lisboa	2	3,538
12	Lixa	1	2,254
13	Lourosa	1	2,751
14	Mangualde	1	1,965
15	Marinha Grande	1	3,551
16	Matosinhos	1	2,341
17	Odivelas	1	3,825
18	Penafiel	1	2,384
19	Portalegre	3	1,702
20	Porto	2	2,958
21	Santo Tirso	1	2,292
22	Silves	3	3,871
23	Tomar	2	2,583
24	Vila Franca de Xira	2	2,235

Number of Cases in each Cluster

Cluster	1	13,000
	2	6,000
	3	5,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**

Number of Clusters: **4**

Standardization: **z scores**

Other: **including population density**

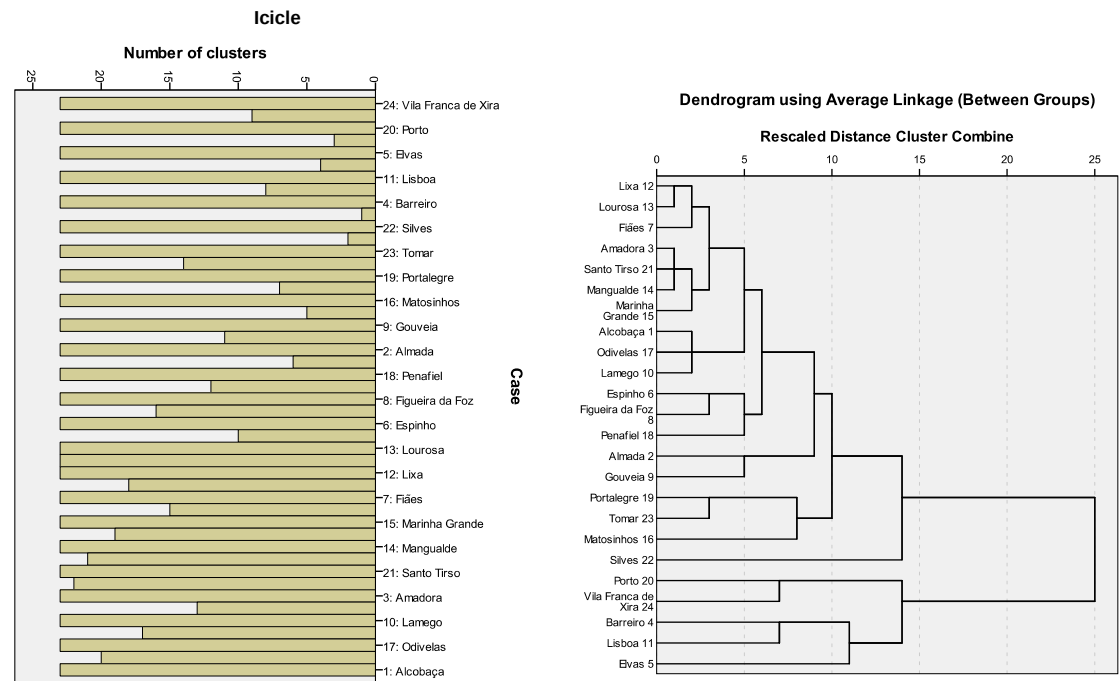
Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	3	2,727
2	Almada	1	2,390
3	Amadora	1	1,808
4	Barreiro	2	2,673
5	Elvas	4	2,174
6	Espinho	1	1,177
7	Fiães	3	1,988
8	Figueira da Foz	1	2,226
9	Gouveia	4	2,366
10	Lamego	1	2,601
11	Lisboa	2	3,167
12	Lixa	3	1,804
13	Lourosa	3	2,624
14	Mangualde	3	1,492
15	Marinha Grande	3	3,047
16	Matosinhos	1	2,093
17	Odivelas	1	3,566
18	Penafiel	3	2,182
19	Portalegre	4	2,035
20	Porto	2	2,574
21	Santo Tirso	1	2,399
22	Silves	4	3,617
23	Tomar	1	2,410
24	Vila Franca de Xira	2	2,295

Number of Cases in each Cluster

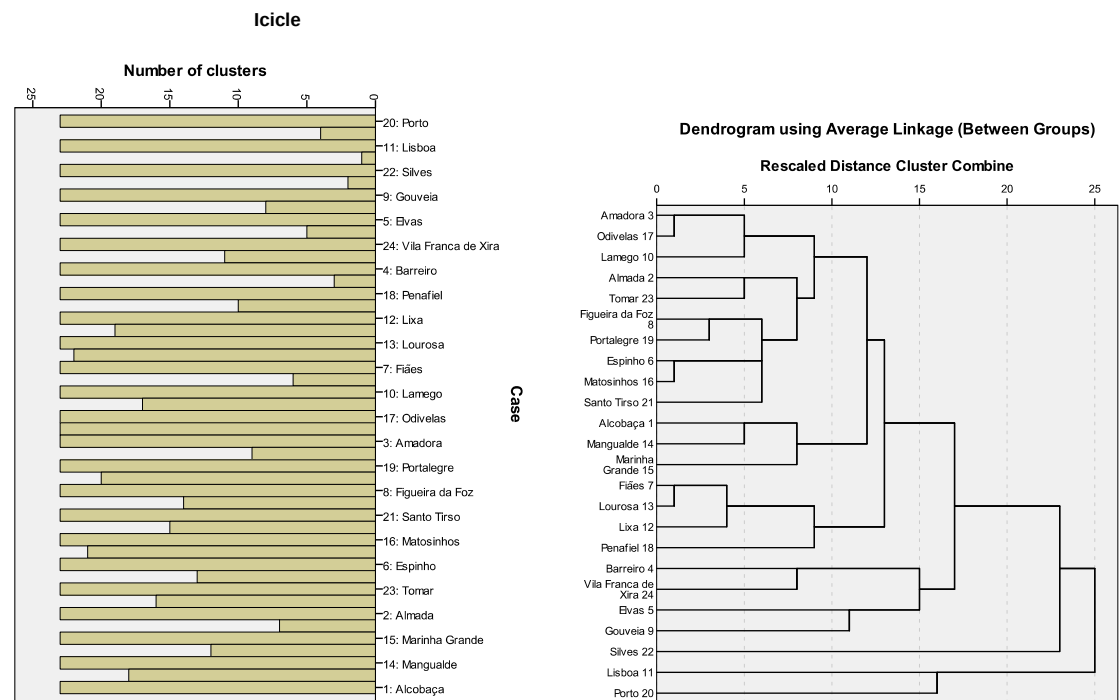
Cluster	1	9,000
	2	4,000
	3	7,000
	4	4,000
	Valid	24,000
	Missing	,000

CITY

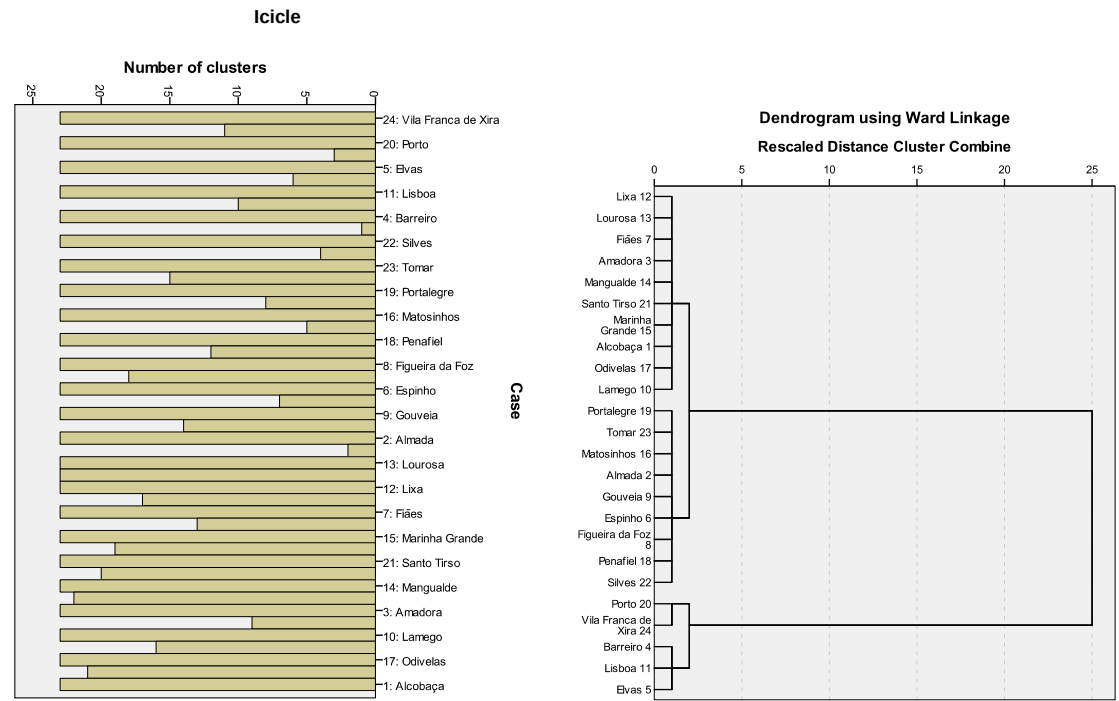
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **none**
Other: **excluding population density**



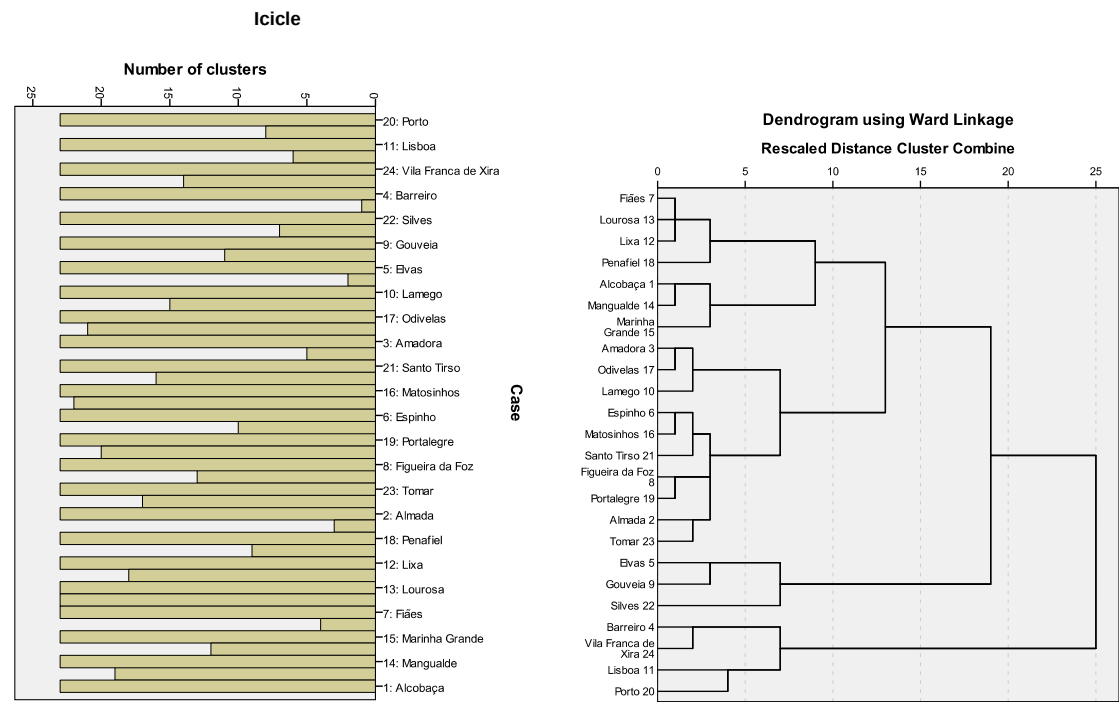
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **z scores**
Other: **excluding population density**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **excluding population density**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **excluding population density**



CITY

Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	63,577
2	Almada	2	101,301
3	Amadora	2	61,622
4	Barreiro	1	69,776
5	Elvas	1	190,090
6	Espinho	2	50,860
7	Fiães	2	59,874
8	Figueira da Foz	2	49,913
9	Gouveia	2	121,207
10	Lamego	2	33,611
11	Lisboa	1	95,382
12	Lixa	2	100,742
13	Lourosa	2	98,411
14	Mangualde	2	74,518
15	Marinha Grande	2	67,493
16	Matosinhos	2	176,850
17	Odivelas	2	58,408
18	Penafiel	2	89,768
19	Portalegre	2	125,885
20	Porto	1	129,899
21	Santo Tirso	2	43,989
22	Silves	2	175,518
23	Tomar	2	105,014
24	Vila Franca de Xira	1	148,707

Number of Cases in each Cluster		
Cluster	1	5,000
	2	19,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	3	46,328
2	Almada	2	93,157
3	Amadora	3	37,626
4	Barreiro	1	69,776
5	Elvas	1	190,090
6	Espinho	2	63,691
7	Fiães	3	54,764
8	Figueira da Foz	2	50,978
9	Gouveia	2	111,200
10	Lamego	3	49,754
11	Lisboa	1	95,382
12	Lixa	3	74,079
13	Lourosa	3	70,934
14	Mangualde	3	38,951
15	Marinha Grande	3	36,291
16	Matosinhos	2	134,553
17	Odivelas	3	23,403
18	Penafiel	2	78,250
19	Portalegre	2	71,558
20	Porto	1	129,899
21	Santo Tirso	3	19,678
22	Silves	3	176,275
23	Tomar	2	76,473
24	Vila Franca de Xira	1	148,707

Number of Cases in each Cluster		
Cluster	1	5,000
	2	8,000
	3	11,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
 Number of Clusters: **4**
 Standardization: **none**
 Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	4	69,972
2	Almada	4	97,362
3	Amadora	4	36,522
4	Barreiro	3	106,661
5	Elvas	1	147,526
6	Espinho	4	58,212
7	Fiães	4	41,824
8	Figueira da Foz	4	74,662
9	Gouveia	4	127,812
10	Lamego	4	45,169
11	Lisboa	3	110,365
12	Lixa	4	76,313
13	Lourosa	4	73,337
14	Mangualde	4	50,017
15	Marinha Grande	4	51,150
16	Matosinhos	1	79,194
17	Odivelas	4	54,424
18	Penafiel	4	92,140
19	Portalegre	1	86,035
20	Porto	3	90,958
21	Santo Tirso	4	22,199
22	Silves	2	,000
23	Tomar	1	80,473
24	Vila Franca de Xira	3	109,955

Number of Cases in each Cluster		
Cluster		
1		4,000
2		1,000
3		4,000
4		15,000
Valid		24,000
Missing		,000

Cluster Analysis Method: **K-means**
 Number of Clusters: **2**
 Standardization: **z scores**
 Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	2,787
2	Almada	1	2,072
3	Amadora	2	1,949
4	Barreiro	1	2,326
5	Elvas	2	3,749
6	Espinho	2	1,645
7	Fiães	2	2,477
8	Figueira da Foz	2	2,521
9	Gouveia	1	3,727
10	Lamego	2	3,240
11	Lisboa	1	3,655
12	Lixa	2	2,447
13	Lourosa	2	2,795
14	Mangualde	2	1,527
15	Marinha Grande	2	3,841
16	Matosinhos	2	2,443
17	Odivelas	2	2,789
18	Penafiel	2	2,670
19	Portalegre	2	2,430
20	Porto	1	3,338
21	Santo Tirso	2	1,923
22	Silves	2	5,125
23	Tomar	1	2,095
24	Vila Franca de Xira	1	2,427

Number of Cases in each Cluster		
Cluster		
1		7,000
2		17,000
Valid		24,000
Missing		,000

CITY

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	3	2,761
2	Almada	1	2,342
3	Amadora	3	1,758
4	Barreiro	1	2,502
5	Elvas	2	2,399
6	Espinho	3	1,723
7	Fiães	3	2,374
8	Figueira da Foz	2	2,380
9	Gouveia	2	2,298
10	Lamego	3	3,162
11	Lisboa	1	3,505
12	Lixa	3	2,207
13	Lourosa	3	2,706
14	Mangualde	3	1,753
15	Marinha Grande	3	3,540
16	Matosinhos	3	2,320
17	Odivelas	3	2,468
18	Penafiel	3	2,319
19	Portalegre	2	1,701
20	Porto	1	2,936
21	Santo Tirso	3	2,197
22	Silves	2	3,869
23	Tomar	1	2,140
24	Vila Franca de Xira	1	2,223

Number of Cases in each Cluster		
Cluster	1	6,000
	2	5,000
	3	13,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	3	2,724
2	Almada	1	2,123
3	Amadora	1	1,545
4	Barreiro	4	2,672
5	Elvas	2	2,303
6	Espinho	1	1,163
7	Fiães	3	1,988
8	Figueira da Foz	1	1,891
9	Gouveia	2	2,556
10	Lamego	1	2,534
11	Lisboa	4	3,157
12	Lixa	3	1,801
13	Lourosa	3	2,623
14	Mangualde	3	1,457
15	Marinha Grande	3	3,034
16	Matosinhos	1	2,129
17	Odivelas	1	2,710
18	Penafiel	3	2,182
19	Portalegre	1	2,243
20	Porto	4	2,570
21	Santo Tirso	1	2,075
22	Silves	2	3,184
23	Tomar	1	2,140
24	Vila Franca de Xira	4	2,250

Number of Cases in each Cluster		
Cluster	1	10,000
	2	3,000
	3	7,000
	4	4,000
	Valid	24,000
	Missing	,000

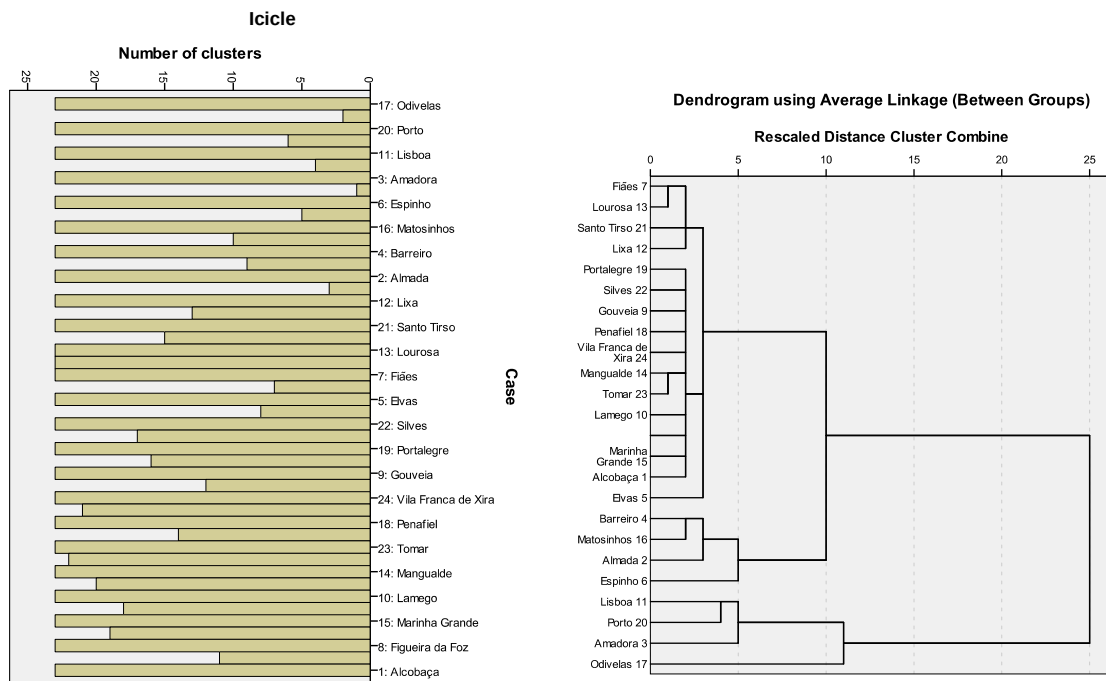
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

Distance measure: **block**

Standardization: **none**

Other: **including population density, estimated missing values for Odivelas**



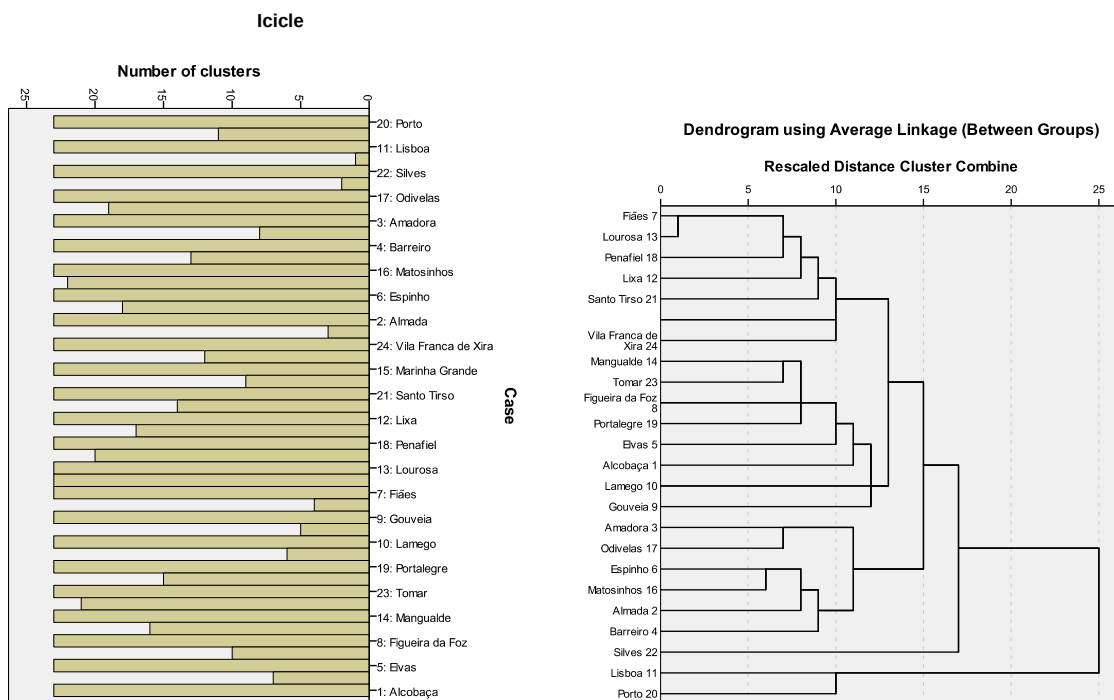
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

Distance measure: **block**

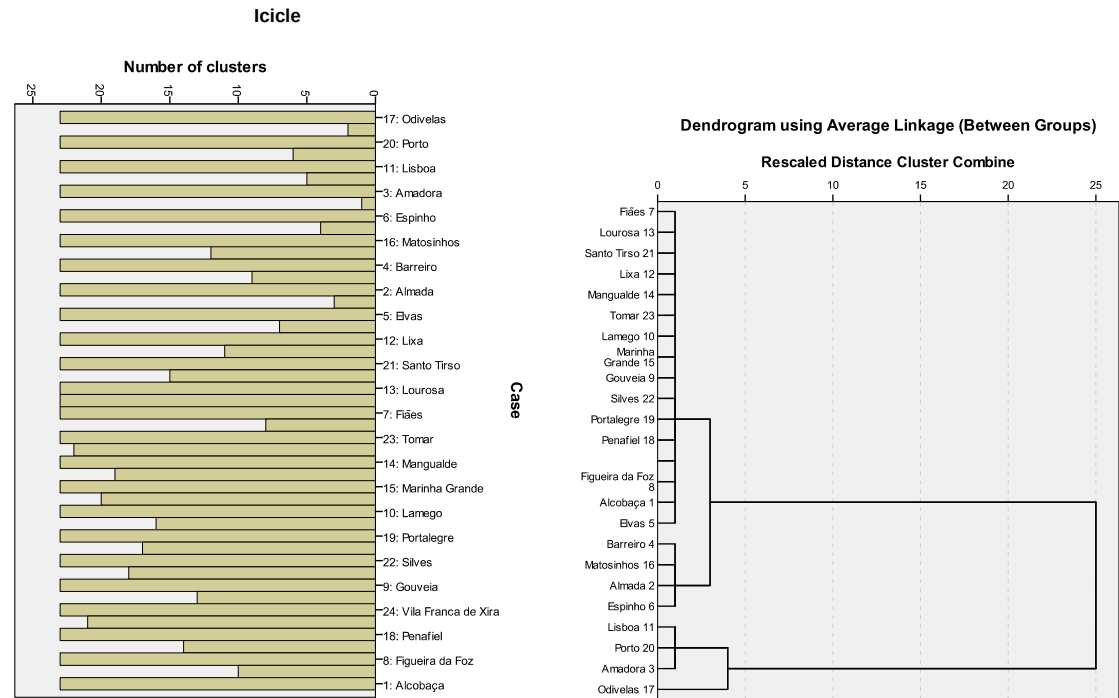
Standardization: **z scores**

Other: **including population density, estimated missing values for Odivelas**

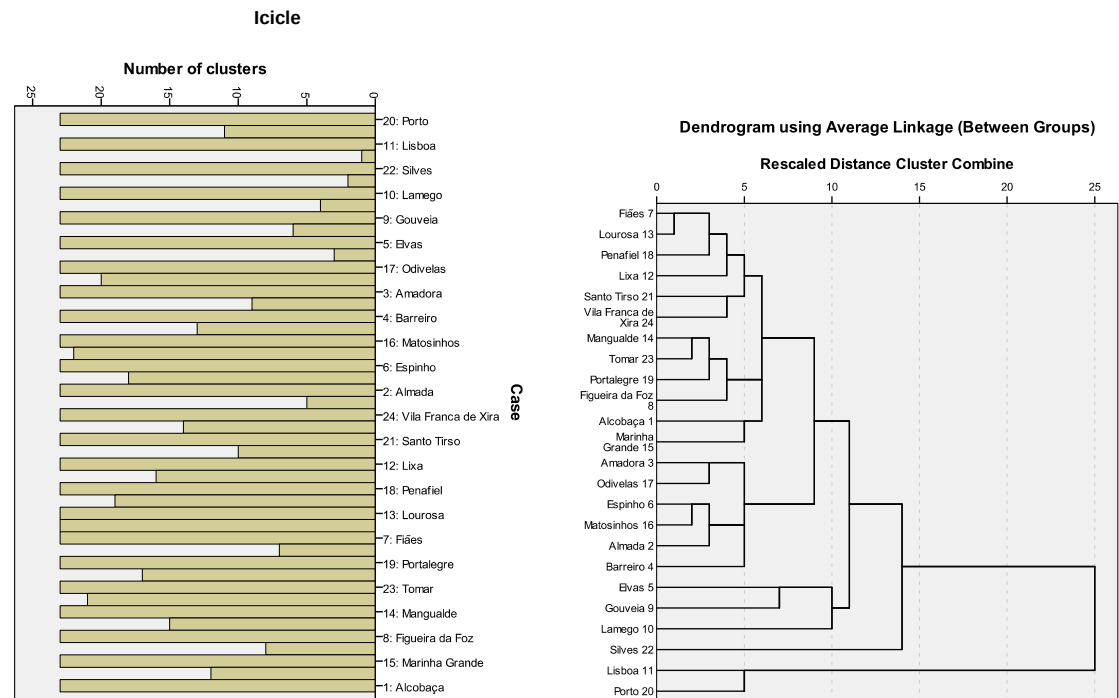


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Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **including population density, estimated missing values for Odivelas**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **including population density, estimated missing values for Odivelas**



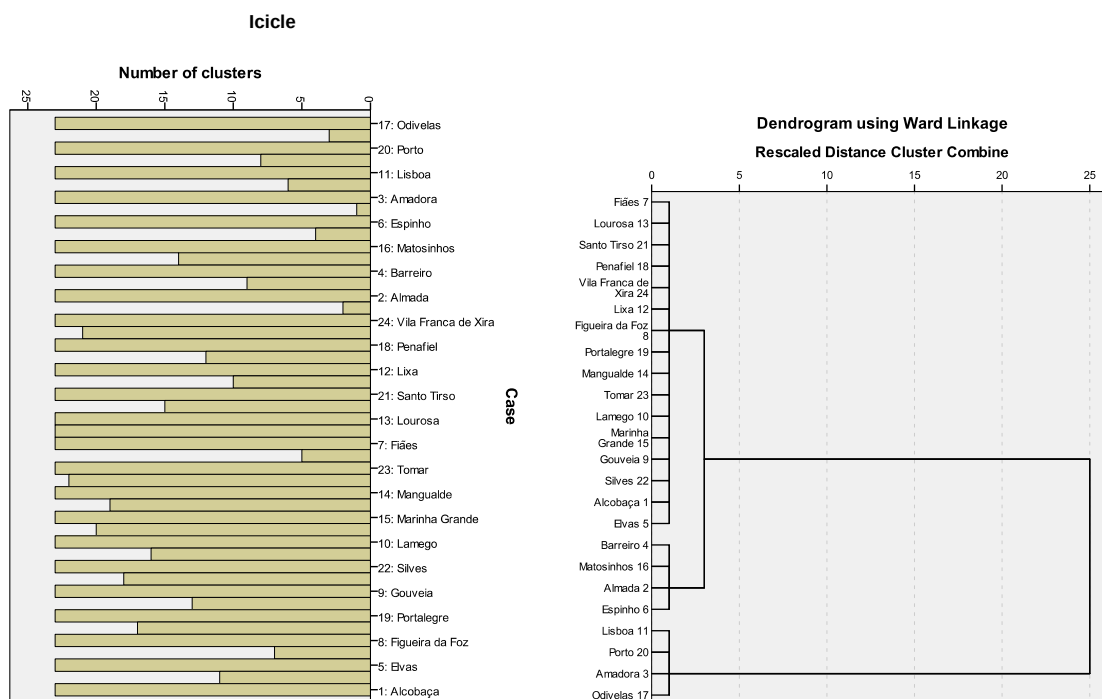
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **none**

Other: **including population density, estimated missing values for Odivelas**



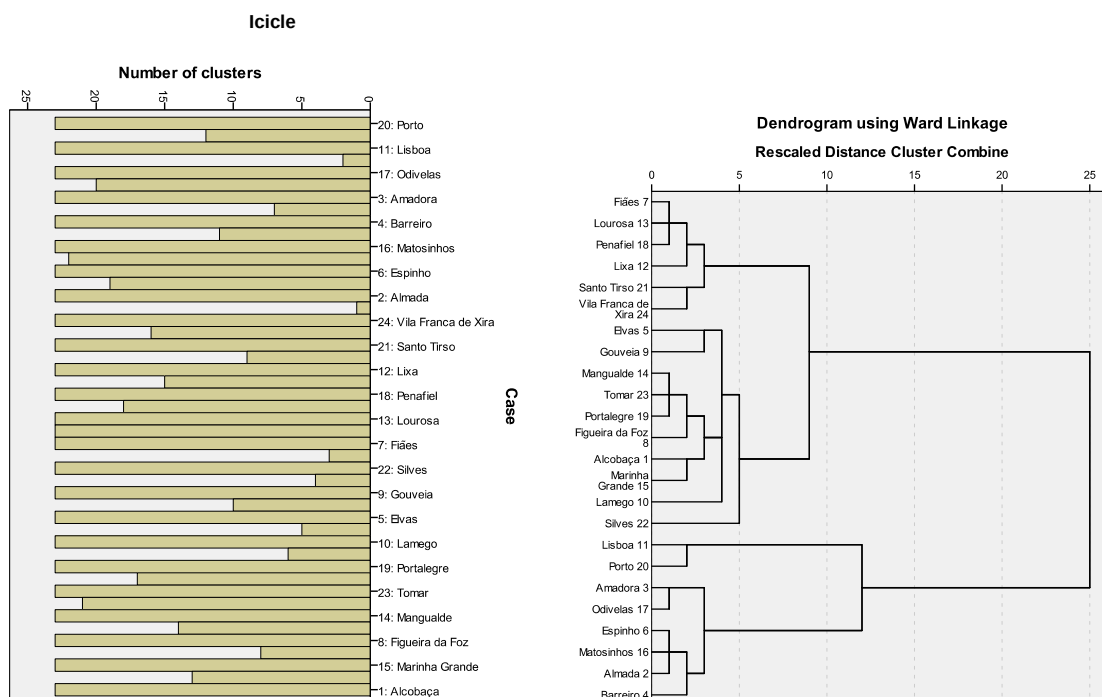
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **z scores**

Other: **including population density, estimated missing values for Odivelas**



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Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	862,274
2	Almada	1	2473,725
3	Amadora	2	1358,760
4	Barreiro	1	2878,873
5	Elvas	1	1173,212
6	Espinho	1	1481,792
7	Fiães	1	153,916
8	Figueira da Foz	1	770,951
9	Gouveia	1	904,630
10	Lamego	1	720,867
11	Lisboa	2	1123,209
12	Lixa	1	484,429
13	Lourosa	1	153,916
14	Mangualde	1	835,387
15	Marinha Grande	1	699,658
16	Matosinhos	1	2880,288
17	Odivelas	2	2595,081
18	Penafiel	1	514,671
19	Portalegre	1	913,475
20	Porto	2	675,908
21	Santo Tirso	1	362,954
22	Silves	1	930,813
23	Tomar	1	789,761
24	Vila Franca de Xira	1	461,332

Number of Cases in each Cluster		
Cluster	1	20,000
	2	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	406,766
2	Almada	2	816,916
3	Amadora	3	762,904
4	Barreiro	2	411,545
5	Elvas	1	787,037
6	Espinho	2	1763,391
7	Fiães	1	531,487
8	Figueira da Foz	1	309,894
9	Gouveia	1	333,331
10	Lamego	1	172,097
11	Lisboa	3	408,483
12	Lixa	1	507,939
13	Lourosa	1	531,487
14	Mangualde	1	281,148
15	Marinha Grande	1	175,865
16	Matosinhos	2	419,056
17	Odivelas	2	3192,294
18	Penafiel	1	196,613
19	Portalegre	1	354,428
20	Porto	3	755,635
21	Santo Tirso	1	522,107
22	Silves	1	381,782
23	Tomar	1	221,154
24	Vila Franca de Xira	1	196,122

Number of Cases in each Cluster		
Cluster	1	16,000
	2	5,000
	3	3,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**Number of Clusters: **4**Standardization: **none**Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	406,766
2	Almada	2	309,108
3	Amadora	3	762,904
4	Barreiro	2	522,435
5	Elvas	1	787,037
6	Espinho	2	972,887
7	Fiães	1	531,487
8	Figueira da Foz	1	309,894
9	Gouveia	1	333,331
10	Lamego	1	172,097
11	Lisboa	3	408,483
12	Lixa	1	507,939
13	Lourosa	1	531,487
14	Mangualde	1	281,148
15	Marinha Grande	1	175,865
16	Matosinhos	2	509,111
17	Odivelas	4	,000
18	Penafiel	1	196,613
19	Portalegre	1	354,428
20	Porto	3	755,635
21	Santo Tirso	1	522,107
22	Silves	1	381,782
23	Tomar	1	221,154
24	Vila Franca de Xira	1	196,122

Number of Cases in each Cluster		
Cluster	1	16,000
	2	4,000
	3	3,000
	4	1,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**Number of Clusters: **2**Standardization: **z scores**Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	4,351
2	Almada	2	4,121
3	Amadora	2	4,428
4	Barreiro	2	4,785
5	Elvas	1	6,181
6	Espinho	2	3,595
7	Fiães	1	3,952
8	Figueira da Foz	1	4,493
9	Gouveia	1	6,744
10	Lamego	1	6,466
11	Lisboa	2	8,146
12	Lixa	1	6,293
13	Lourosa	1	3,952
14	Mangualde	1	3,409
15	Marinha Grande	1	4,891
16	Matosinhos	2	3,811
17	Odivelas	2	4,832
18	Penafiel	1	3,709
19	Portalegre	1	3,836
20	Porto	2	7,313
21	Santo Tirso	1	4,844
22	Silves	1	7,588
23	Tomar	1	3,661
24	Vila Franca de Xira	1	4,979

Number of Cases in each Cluster		
Cluster	1	16,000
	2	8,000
	Valid	24,000
	Missing	,000

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Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	4,475
2	Almada	3	4,340
3	Amadora	3	7,120
4	Barreiro	3	4,739
5	Elvas	2	4,453
6	Espinho	3	4,595
7	Fiães	3	3,928
8	Figueira da Foz	3	4,510
9	Gouveia	2	5,290
10	Lamego	3	7,008
11	Lisboa	1	2,947
12	Lixa	3	6,780
13	Lourosa	3	3,928
14	Mangualde	3	4,474
15	Marinha Grande	3	4,394
16	Matosinhos	3	4,526
17	Odivelas	3	4,744
18	Penafiel	3	4,107
19	Portalegre	3	4,831
20	Porto	1	2,947
21	Santo Tirso	3	4,397
22	Silves	2	5,541
23	Tomar	3	4,101
24	Vila Franca de Xira	3	3,998

Number of Cases in each Cluster		
Cluster	1	2,000
	2	4,000
	3	18,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	4	4,764
2	Almada	3	3,099
3	Amadora	3	4,348
4	Barreiro	3	3,935
5	Elvas	4	5,035
6	Espinho	3	3,270
7	Fiães	2	1,909
8	Figueira da Foz	4	4,764
9	Gouveia	4	5,605
10	Lamego	4	5,858
11	Lisboa	1	2,947
12	Lixa	2	4,778
13	Lourosa	2	1,909
14	Mangualde	4	3,359
15	Marinha Grande	2	4,605
16	Matosinhos	3	3,279
17	Odivelas	3	3,270
18	Penafiel	2	3,253
19	Portalegre	4	3,400
20	Porto	1	2,947
21	Santo Tirso	2	4,275
22	Silves	4	6,776
23	Tomar	4	3,161
24	Vila Franca de Xira	2	4,067

Number of Cases in each Cluster		
Cluster	1	2,000
	2	7,000
	3	6,000
	4	9,000
	Valid	24,000
	Missing	,000

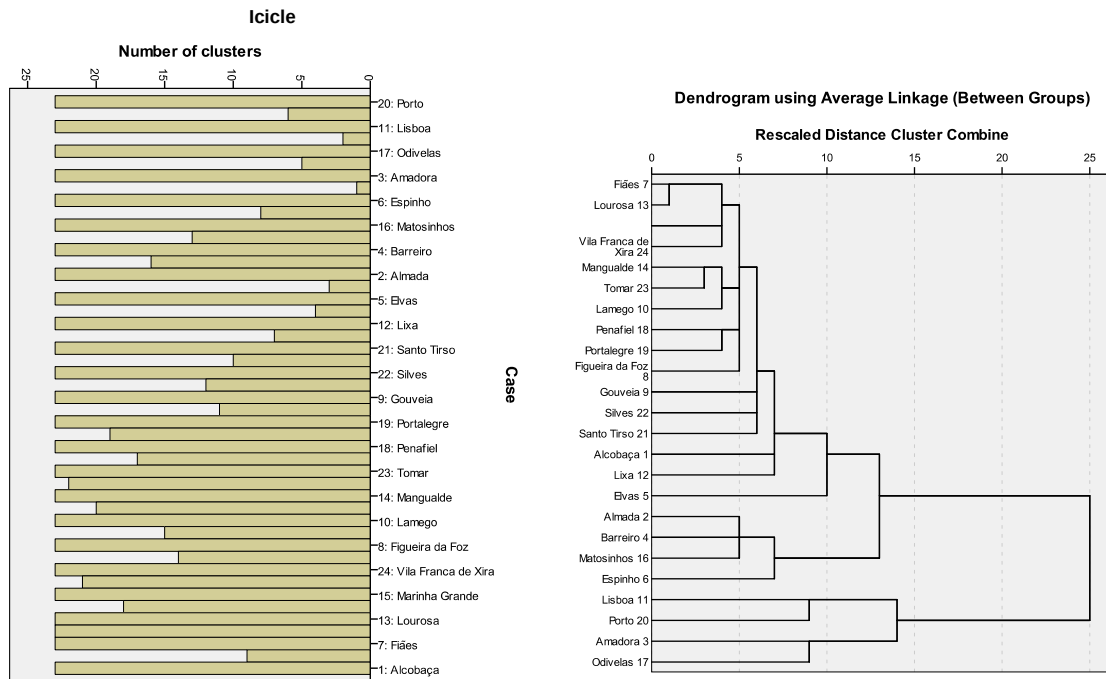
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

Distance measure: **block**

Standardization: **none**

Other: **excluding population density, estimated missing values for Odivelas**



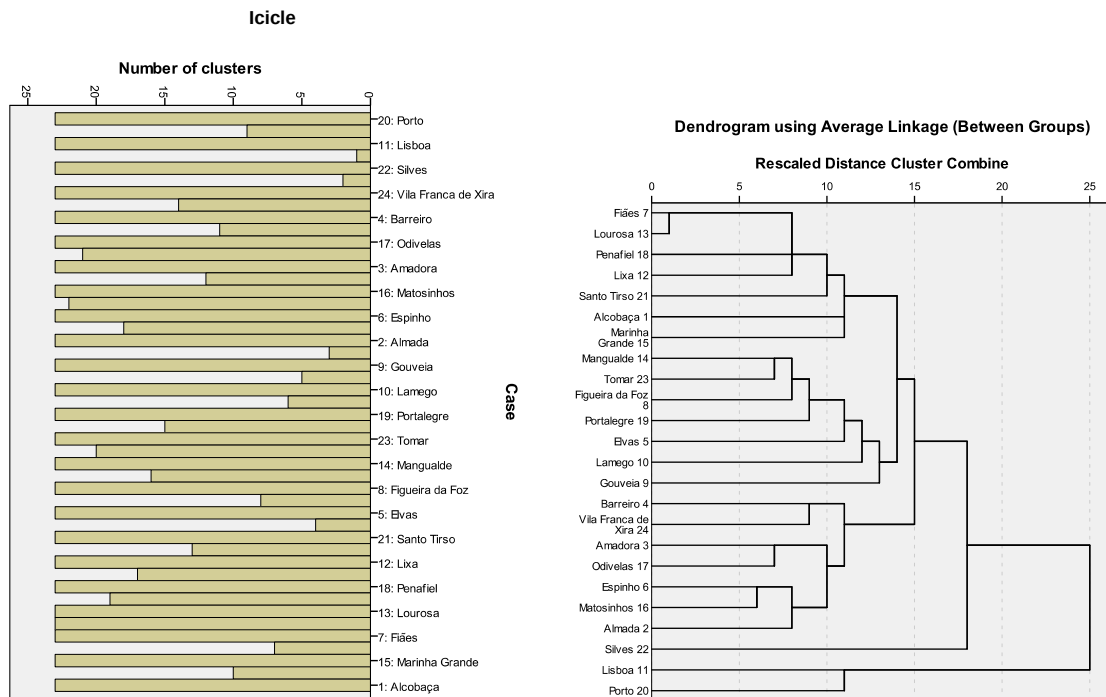
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

Distance measure: **block**

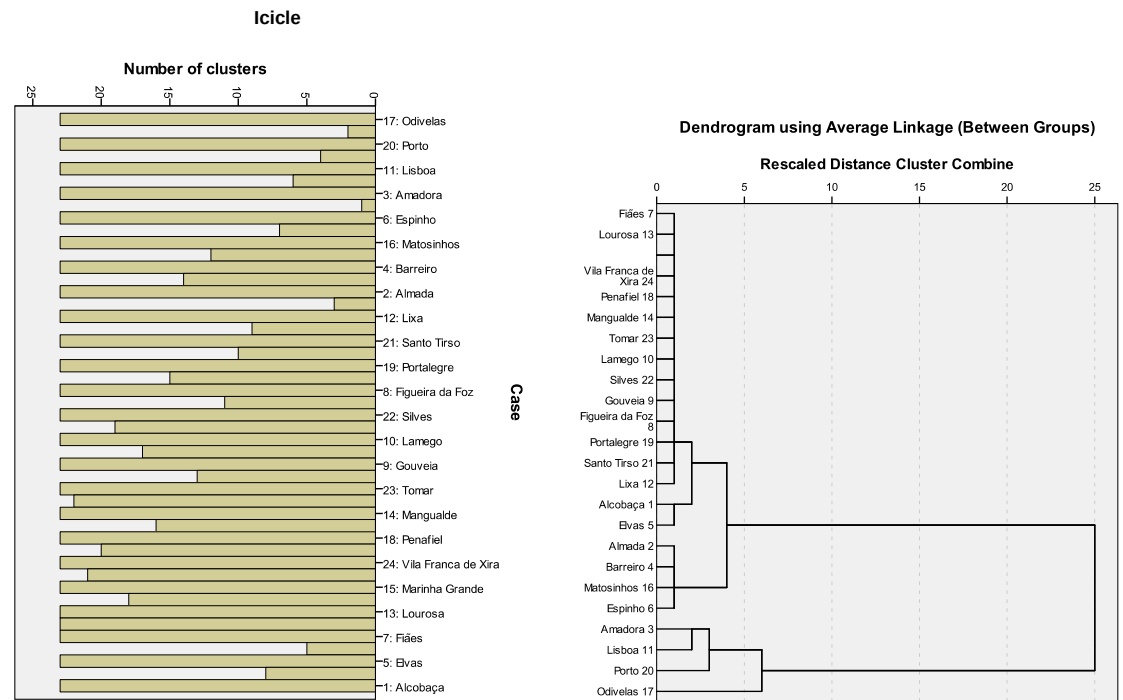
Standardization: **z scores**

Other: **excluding population density, estimated missing values for Odivelas**

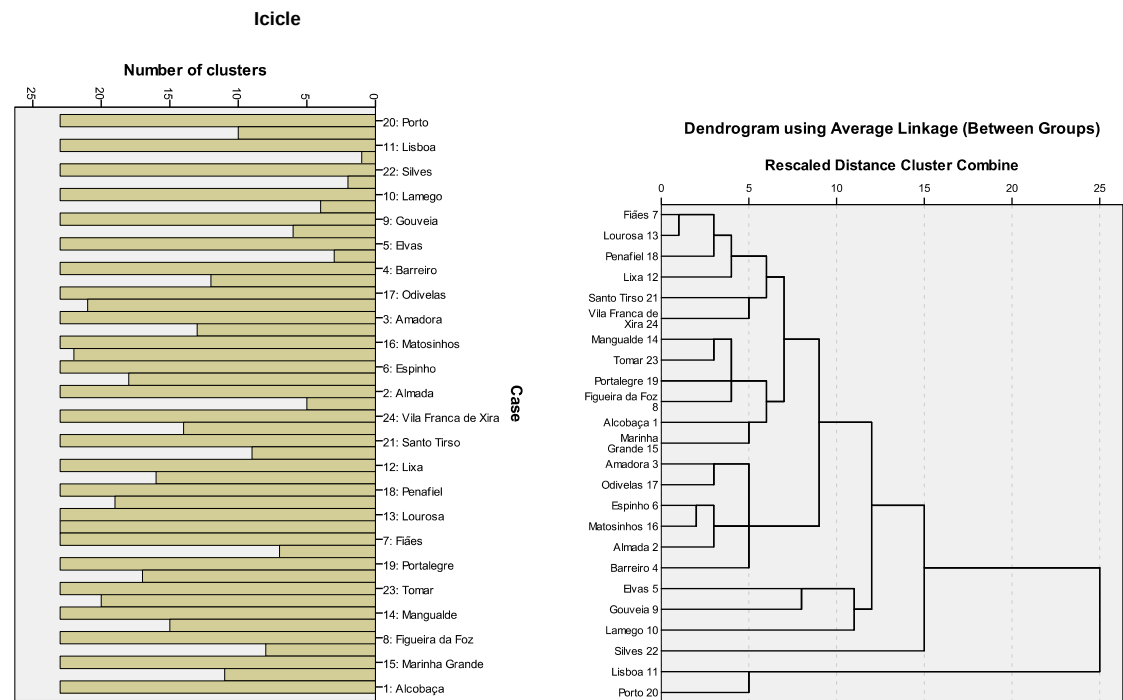


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Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **excluding population density, estimated missing values for Odivelas**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **excluding population density, estimated missing values for Odivelas**



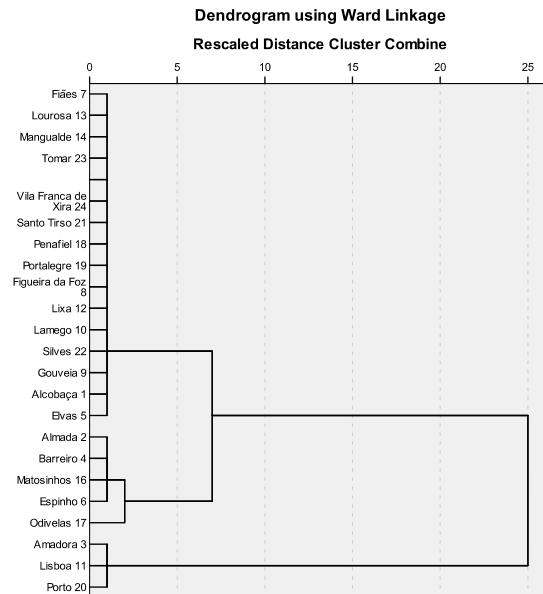
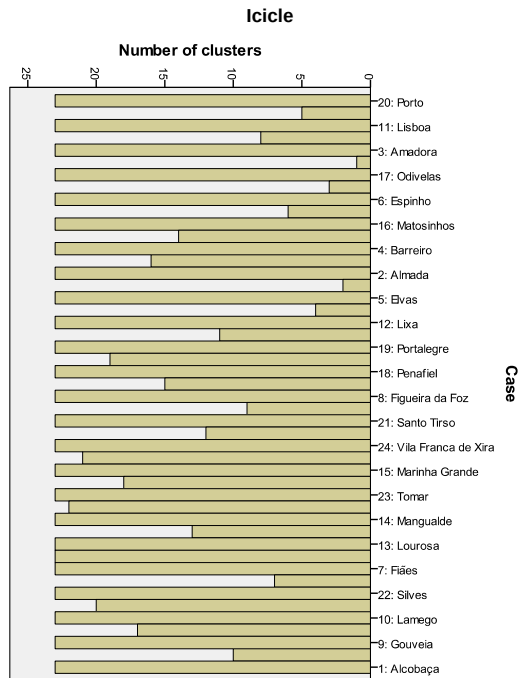
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **none**

Other: **excluding population density, estimated missing values for Odivelas**



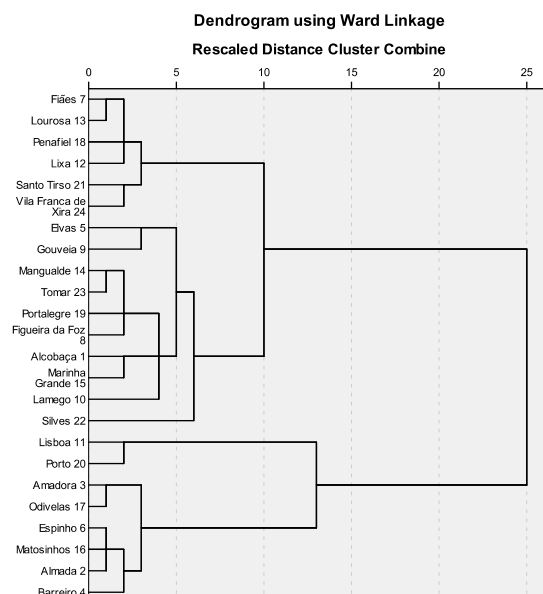
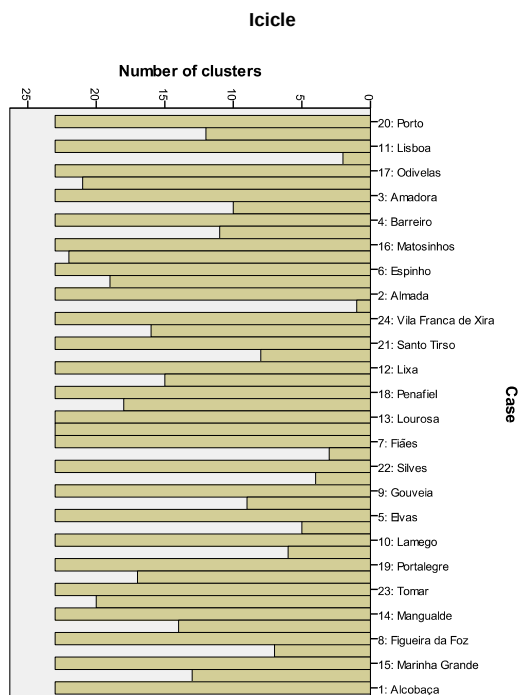
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **z scores**

Other: **excluding population density, estimated missing values for Odivelas**



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Cluster Analysis Method: **K-means**

Number of Clusters: **2**

Standardization: **none**

Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	466,060
2	Almada	1	1061,458
3	Amadora	2	501,698
4	Barreiro	1	910,923
5	Elvas	1	797,377
6	Espinho	1	522,809
7	Fiães	1	126,287
8	Figueira da Foz	1	358,784
9	Gouveia	1	345,897
10	Lamego	1	276,500
11	Lisboa	2	547,809
12	Lixa	1	405,689
13	Lourosa	1	126,287
14	Mangualde	1	308,071
15	Marinha Grande	1	255,898
16	Matosinhos	1	914,042
17	Odivelas	2	924,001
18	Penafiel	1	255,448
19	Portalegre	1	376,424
20	Porto	2	563,183
21	Santo Tirso	1	318,994
22	Silves	1	390,343
23	Tomar	1	272,940
24	Vila Franca de Xira	1	190,764

Number of Cases in each Cluster		
Cluster	1	20,000
	2	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**

Number of Clusters: **3**

Standardization: **none**

Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	374,505
2	Almada	2	157,207
3	Amadora	3	481,437
4	Barreiro	2	202,935
5	Elvas	1	730,111
6	Espinho	2	623,841
7	Fiães	1	203,244
8	Figueira da Foz	1	287,384
9	Gouveia	1	196,445
10	Lamego	1	139,260
11	Lisboa	3	294,911
12	Lixa	1	404,674
13	Lourosa	1	203,244
14	Mangualde	1	186,875
15	Marinha Grande	1	154,263
16	Matosinhos	2	249,442
17	Odivelas	2	905,874
18	Penafiel	1	155,589
19	Portalegre	1	234,641
20	Porto	3	515,388
21	Santo Tirso	1	342,790
22	Silves	1	261,385
23	Tomar	1	135,755
24	Vila Franca de Xira	1	126,048

Number of Cases in each Cluster		
Cluster	1	16,000
	2	5,000
	3	3,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**Number of Clusters: **4**Standardization: **none**Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	4	246,205
2	Almada	2	184,989
3	Amadora	3	481,437
4	Barreiro	2	316,150
5	Elvas	4	246,205
6	Espinho	1	657,079
7	Fiães	1	146,587
8	Figueira da Foz	1	274,562
9	Gouveia	1	254,394
10	Lamego	1	180,072
11	Lisboa	3	294,911
12	Lixa	1	331,919
13	Lourosa	1	146,587
14	Mangualde	1	187,409
15	Marinha Grande	1	140,208
16	Matosinhos	2	385,605
17	Odivelas	2	754,034
18	Penafiel	1	165,402
19	Portalegre	1	272,910
20	Porto	3	515,388
21	Santo Tirso	1	307,522
22	Silves	1	290,049
23	Tomar	1	156,514
24	Vila Franca de Xira	1	107,539

Number of Cases in each Cluster		
Cluster	1	15,000
	2	4,000
	3	3,000
	4	2,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**Number of Clusters: **2**Standardization: **z scores**Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	4,351
2	Almada	2	3,917
3	Amadora	2	4,054
4	Barreiro	2	4,662
5	Elvas	1	6,180
6	Espinho	2	3,205
7	Fiães	1	3,947
8	Figueira da Foz	1	4,493
9	Gouveia	1	6,743
10	Lamego	1	6,466
11	Lisboa	2	7,982
12	Lixa	1	6,292
13	Lourosa	1	3,947
14	Mangualde	1	3,408
15	Marinha Grande	1	4,891
16	Matosinhos	2	3,656
17	Odivelas	2	4,821
18	Penafiel	1	3,709
19	Portalegre	1	3,834
20	Porto	2	7,184
21	Santo Tirso	1	4,842
22	Silves	1	7,587
23	Tomar	1	3,660
24	Vila Franca de Xira	1	4,979

Number of Cases in each Cluster		
Cluster	1	16,000
	2	8,000
	Valid	24,000
	Missing	,000

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Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	4,475
2	Almada	1	4,313
3	Amadora	1	6,178
4	Barreiro	1	4,690
5	Elvas	2	4,453
6	Espinho	1	4,593
7	Fiães	1	3,900
8	Figueira da Foz	1	4,453
9	Gouveia	2	5,290
10	Lamego	1	6,972
11	Lisboa	3	2,945
12	Lixa	1	6,759
13	Lourosa	1	3,900
14	Mangualde	1	4,410
15	Marinha Grande	1	4,338
16	Matosinhos	1	4,472
17	Odivelas	1	4,270
18	Penafiel	1	4,060
19	Portalegre	1	4,768
20	Porto	3	2,945
21	Santo Tirso	1	4,368
22	Silves	2	5,541
23	Tomar	1	4,034
24	Vila Franca de Xira	1	3,952

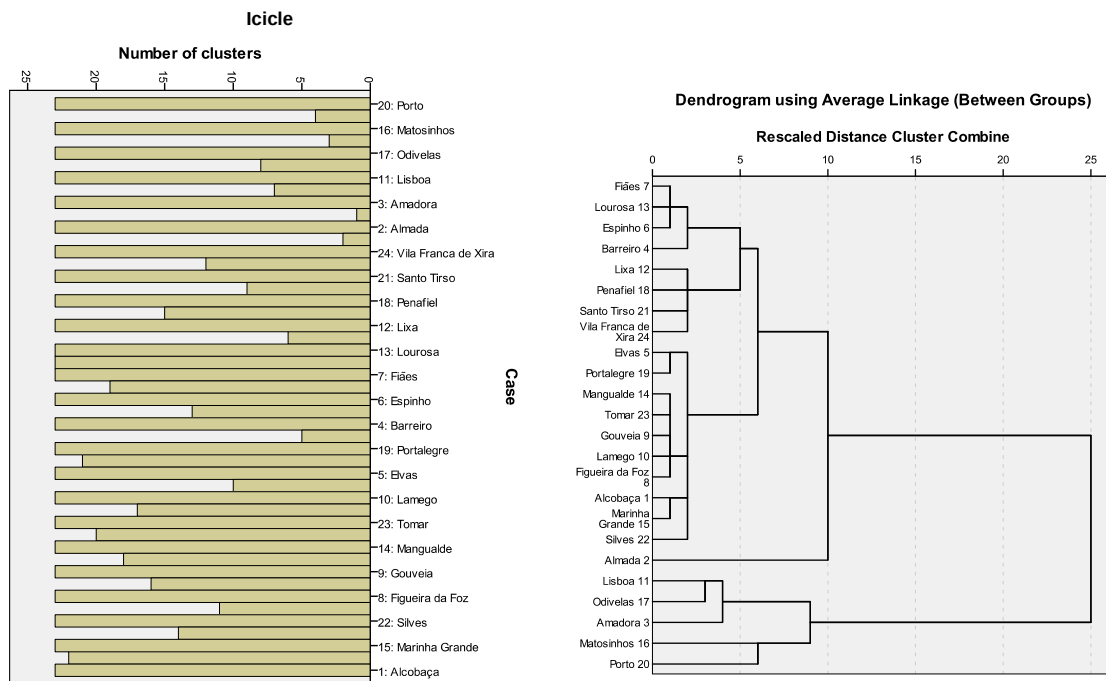
Number of Cases in each Cluster		
Cluster	1	18,000
	2	4,000
	3	2,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **excluding population density, estimated missing values for Odivelas**

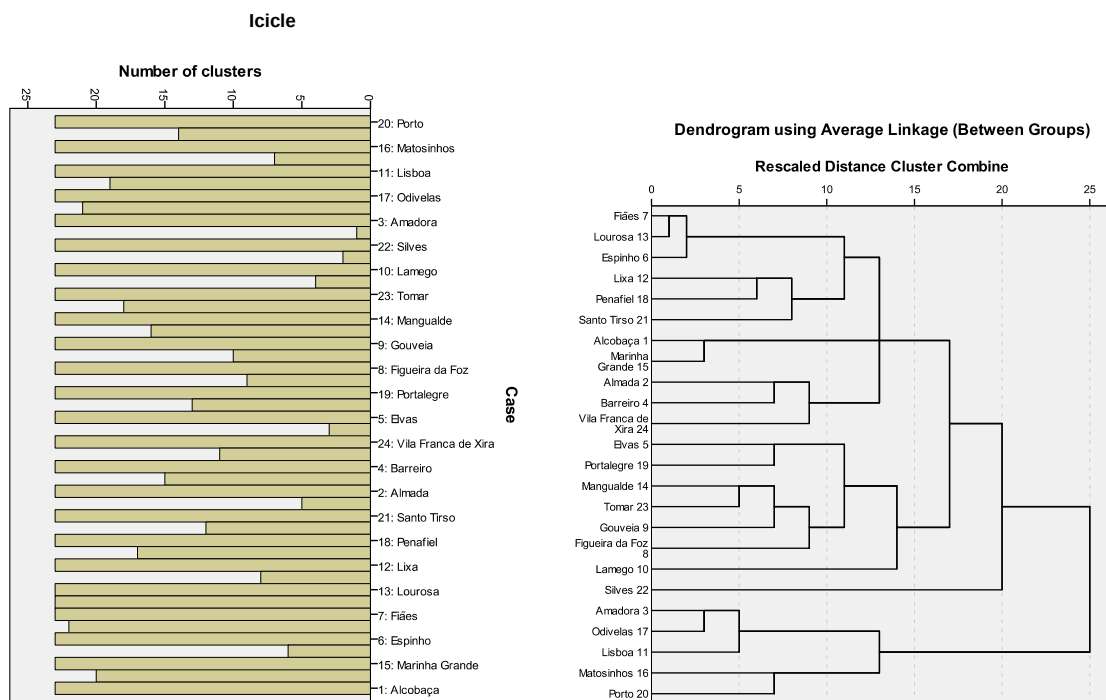
Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	4	4,475
2	Almada	3	2,859
3	Amadora	3	4,402
4	Barreiro	3	3,885
5	Elvas	4	4,453
6	Espinho	3	3,354
7	Fiães	1	3,511
8	Figueira da Foz	1	4,414
9	Gouveia	4	5,290
10	Lamego	1	6,311
11	Lisboa	2	2,945
12	Lixa	1	5,639
13	Lourosa	1	3,511
14	Mangualde	1	3,765
15	Marinha Grande	3	4,582
16	Matosinhos	3	3,133
17	Odivelas	3	3,369
18	Penafiel	1	3,004
19	Portalegre	1	4,034
20	Porto	2	2,945
21	Santo Tirso	1	4,601
22	Silves	4	5,541
23	Tomar	1	3,856
24	Vila Franca de Xira	3	4,171

Number of Cases in each Cluster		
Cluster	1	10,000
	2	2,000
	3	8,000
	4	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **none**
Other: **including population density**

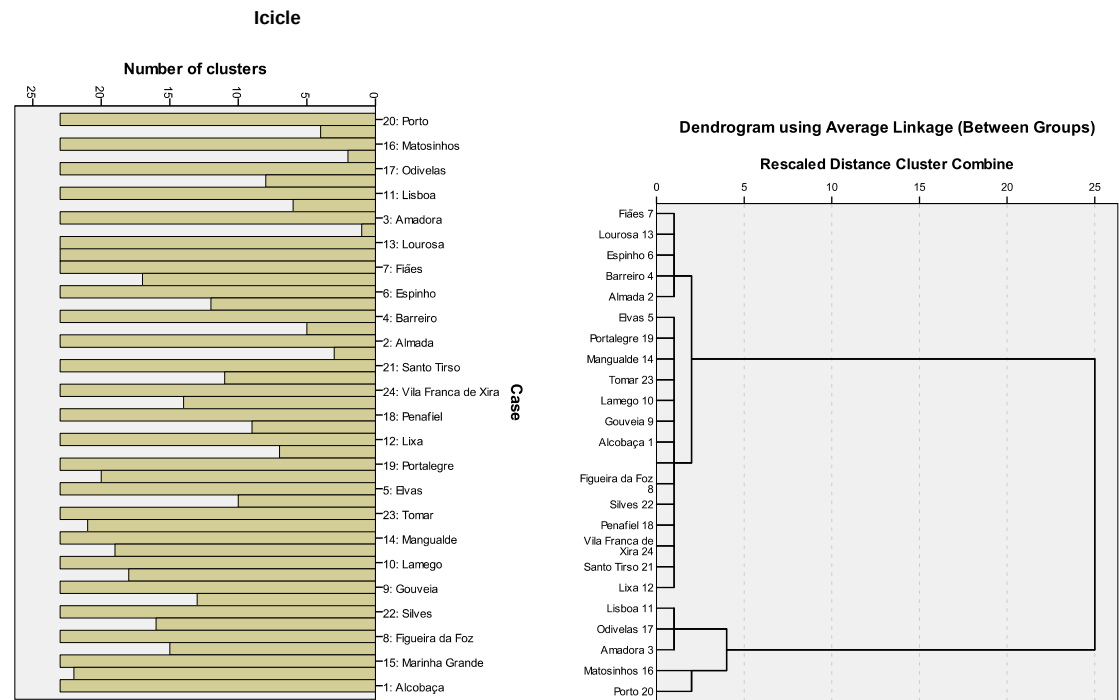


Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **z scores**
Other: **including population density**

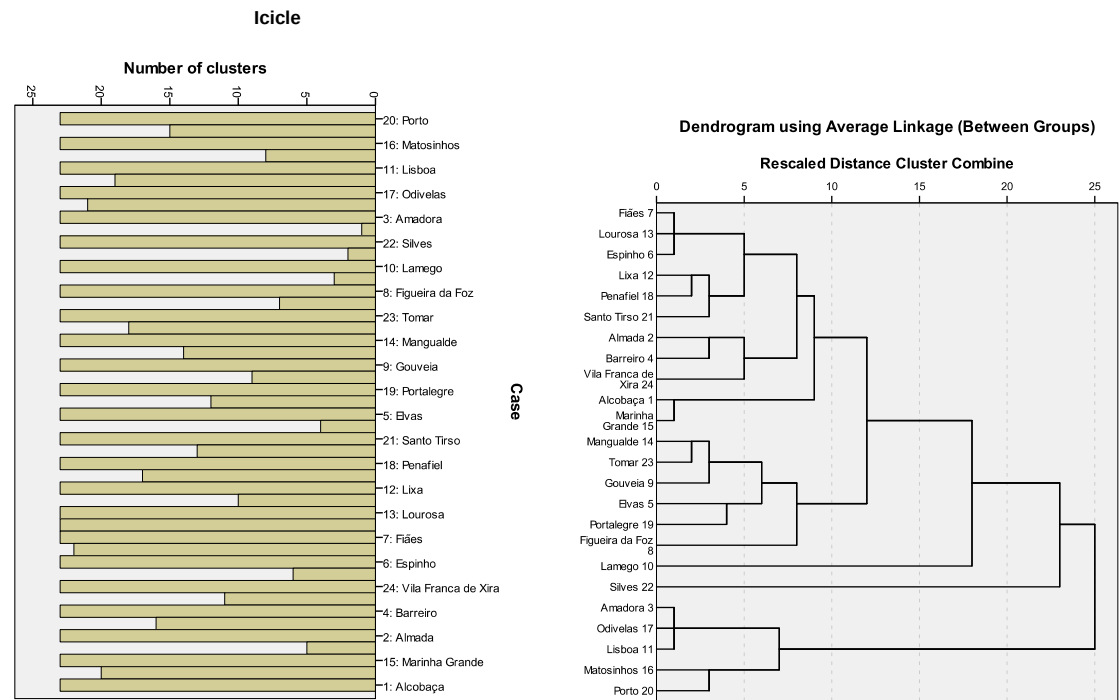


EXTENDED SURROUNDINGS

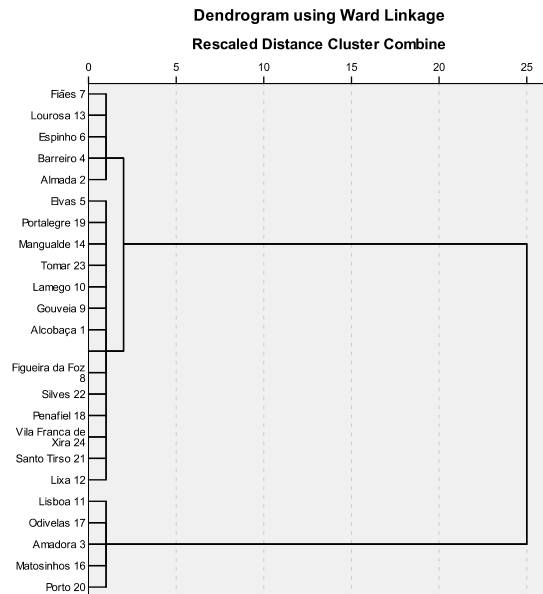
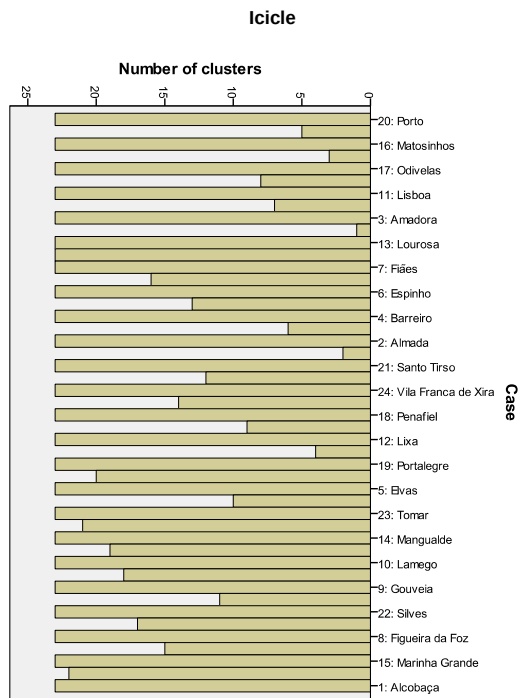
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **including population density**



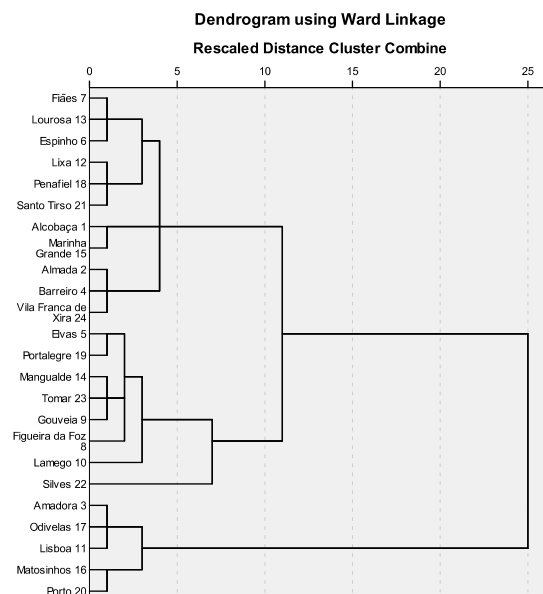
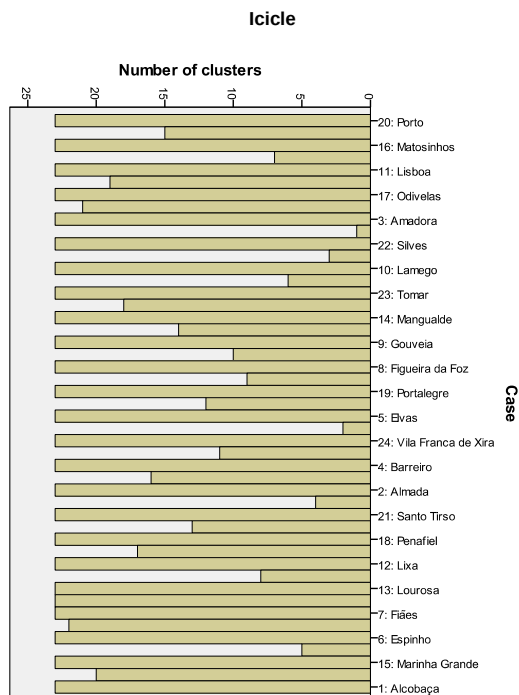
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **including population density**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **including population density**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **including population density**



EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	537,924
2	Almada	1	1793,487
3	Amadora	2	1291,238
4	Barreiro	1	975,149
5	Elvas	1	758,867
6	Espinho	1	1025,579
7	Fiães	1	903,849
8	Figueira da Foz	1	611,649
9	Gouveia	1	688,009
10	Lamego	1	586,734
11	Lisboa	2	308,542
12	Lixa	1	129,202
13	Lourosa	1	903,849
14	Mangualde	1	594,239
15	Marinha Grande	1	518,567
16	Matosinhos	2	541,971
17	Odivelas	2	772,607
18	Penafiel	1	146,347
19	Portalegre	1	737,836
20	Porto	2	1820,912
21	Santo Tirso	1	362,324
22	Silves	1	607,225
23	Tomar	1	624,518
24	Vila Franca de Xira	1	242,087

Number of Cases in each Cluster		
Cluster	1	19,000
	2	5,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	537,924
2	Almada	1	1793,487
3	Amadora	3	836,224
4	Barreiro	1	975,149
5	Elvas	1	758,867
6	Espinho	1	1025,579
7	Fiães	1	903,849
8	Figueira da Foz	1	611,649
9	Gouveia	1	688,009
10	Lamego	1	586,734
11	Lisboa	3	233,645
12	Lixa	1	129,202
13	Lourosa	1	903,849
14	Mangualde	1	594,239
15	Marinha Grande	1	518,567
16	Matosinhos	3	982,390
17	Odivelas	3	324,450
18	Penafiel	1	146,347
19	Portalegre	1	737,836
20	Porto	2	,000
21	Santo Tirso	1	362,324
22	Silves	1	607,225
23	Tomar	1	624,518
24	Vila Franca de Xira	1	242,087

Number of Cases in each Cluster		
Cluster	1	19,000
	2	1,000
	3	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
 Number of Clusters: **4**
 Standardization: **none**
 Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	122,211
2	Almada	4	1013,951
3	Amadora	3	517,559
4	Barreiro	4	213,198
5	Elvas	1	239,045
6	Espinho	4	249,283
7	Fiães	4	132,389
8	Figueira da Foz	1	106,486
9	Gouveia	1	127,424
10	Lamego	1	93,788
11	Lisboa	3	514,203
12	Lixa	1	475,733
13	Lourosa	4	132,389
14	Mangualde	1	59,158
15	Marinha Grande	1	129,737
16	Matosinhos	2	661,996
17	Odivelas	3	71,828
18	Penafiel	4	658,776
19	Portalegre	1	194,309
20	Porto	2	661,996
21	Santo Tirso	4	436,924
22	Silves	1	113,591
23	Tomar	1	68,891
24	Vila Franca de Xira	4	578,724

Number of Cases in each Cluster		
Cluster	1	11,000
	2	2,000
	3	3,000
	4	8,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
 Number of Clusters: **2**
 Standardization: **z scores**
 Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	4,293
2	Almada	1	5,615
3	Amadora	2	2,612
4	Barreiro	1	4,149
5	Elvas	1	6,484
6	Espinho	1	4,235
7	Fiães	1	3,892
8	Figueira da Foz	1	4,685
9	Gouveia	1	4,283
10	Lamego	1	7,508
11	Lisboa	2	2,168
12	Lixa	1	4,511
13	Lourosa	1	3,892
14	Mangualde	1	2,553
15	Marinha Grande	1	4,760
16	Matosinhos	2	3,285
17	Odivelas	2	2,222
18	Penafiel	1	3,924
19	Portalegre	1	5,660
20	Porto	2	3,819
21	Santo Tirso	1	4,189
22	Silves	1	8,752
23	Tomar	1	3,342
24	Vila Franca de Xira	1	3,919

Number of Cases in each Cluster		
Cluster	1	19,000
	2	5,000
	Valid	24,000
	Missing	,000

EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	2,931
2	Almada	1	5,675
3	Amadora	3	2,612
4	Barreiro	1	4,106
5	Elvas	1	6,327
6	Espinho	1	4,270
7	Fiães	1	3,902
8	Figueira da Foz	1	4,890
9	Gouveia	1	4,081
10	Lamego	1	7,098
11	Lisboa	3	2,168
12	Lixa	1	4,348
13	Lourosa	1	3,902
14	Mangualde	1	2,507
15	Marinha Grande	2	3,354
16	Matosinhos	3	3,285
17	Odivelas	3	2,222
18	Penafiel	1	3,687
19	Portalegre	1	5,487
20	Porto	3	3,819
21	Santo Tirso	1	4,295
22	Silves	2	6,147
23	Tomar	1	3,367
24	Vila Franca de Xira	1	3,920

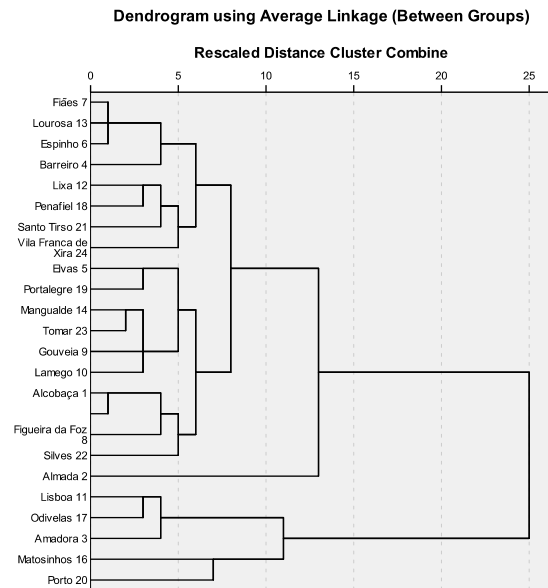
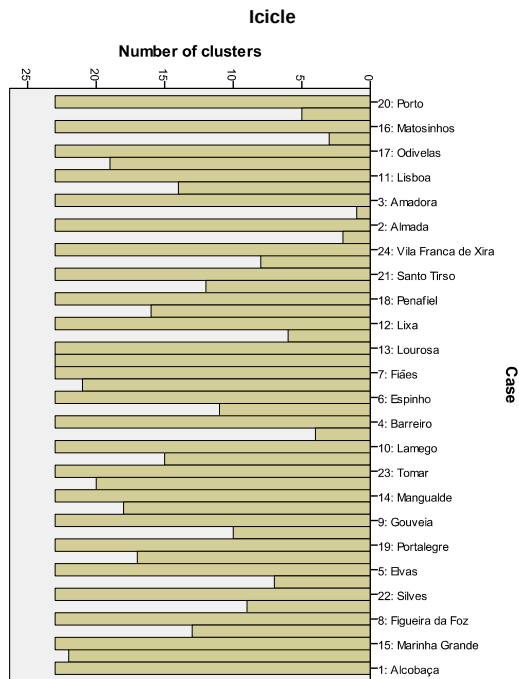
Number of Cases in each Cluster		
Cluster	1	16,000
	2	3,000
	3	5,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **including population density**

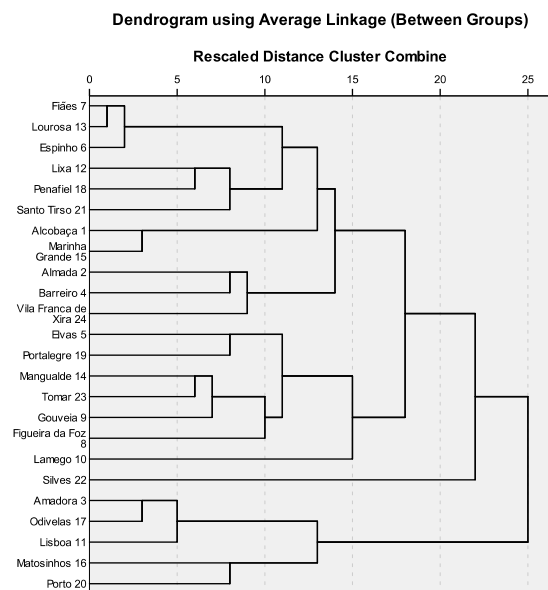
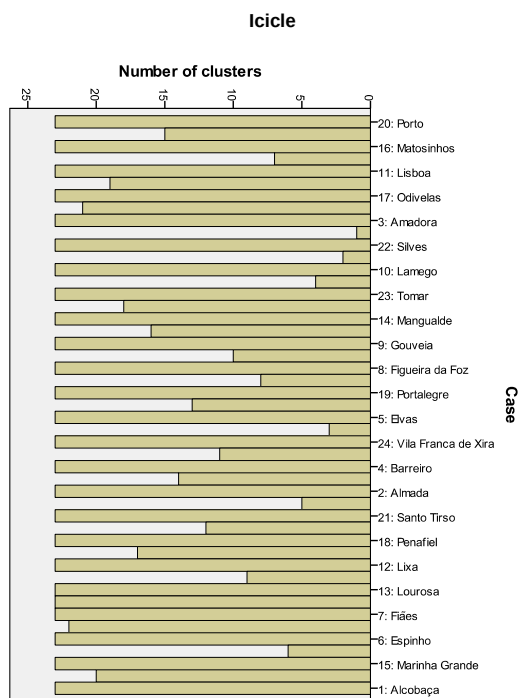
Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	4,175
2	Almada	2	4,525
3	Amadora	3	2,612
4	Barreiro	2	3,855
5	Elvas	4	4,269
6	Espinho	2	2,778
7	Fiães	2	2,347
8	Figueira da Foz	4	4,468
9	Gouveia	4	2,505
10	Lamego	4	5,787
11	Lisboa	3	2,168
12	Lixa	2	4,653
13	Lourosa	2	2,347
14	Mangualde	4	2,680
15	Marinha Grande	2	4,349
16	Matosinhos	3	3,285
17	Odivelas	3	2,222
18	Penafiel	2	3,568
19	Portalegre	4	3,020
20	Porto	3	3,819
21	Santo Tirso	2	2,764
22	Silves	1	,000
23	Tomar	4	2,607
24	Vila Franca de Xira	2	3,927

Number of Cases in each Cluster		
Cluster	1	1,000
	2	11,000
	3	5,000
	4	7,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **Hierarchical**
 Cluster/Aggregation Method: **(average) between-groups linkage**
 Distance measure: **block**
 Standardization: **none**
 Other: **excluding population density**

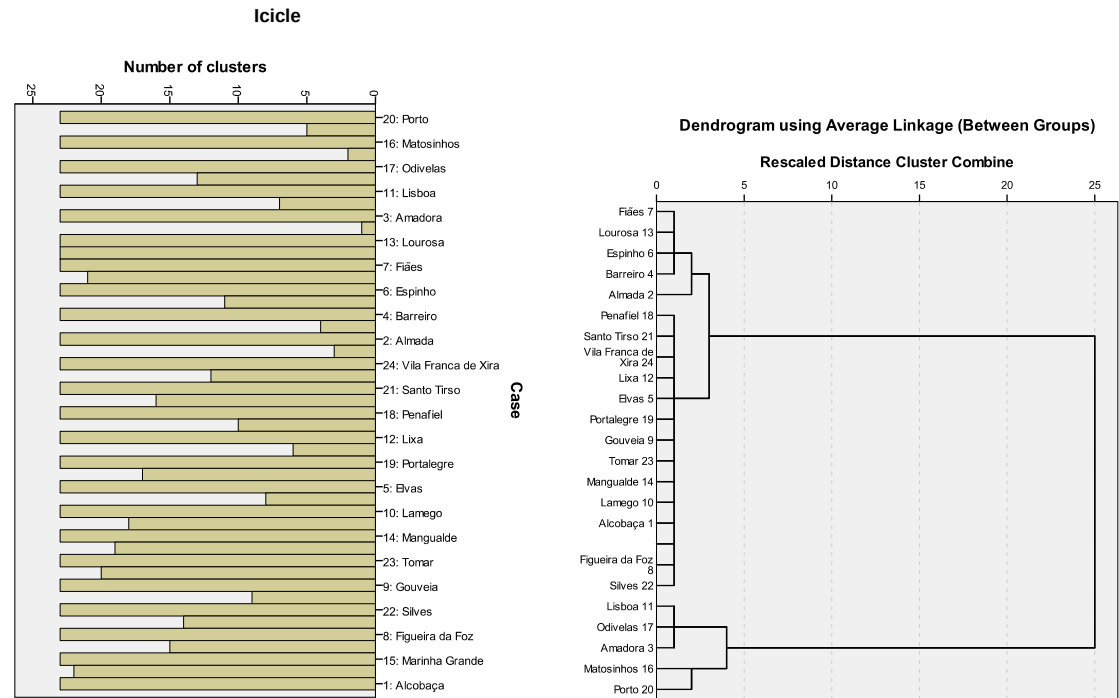


Cluster Analysis Method: **Hierarchical**
 Cluster/Aggregation Method: **(average) between-groups linkage**
 Distance measure: **block**
 Standardization: **z scores**
 Other: **excluding population density**

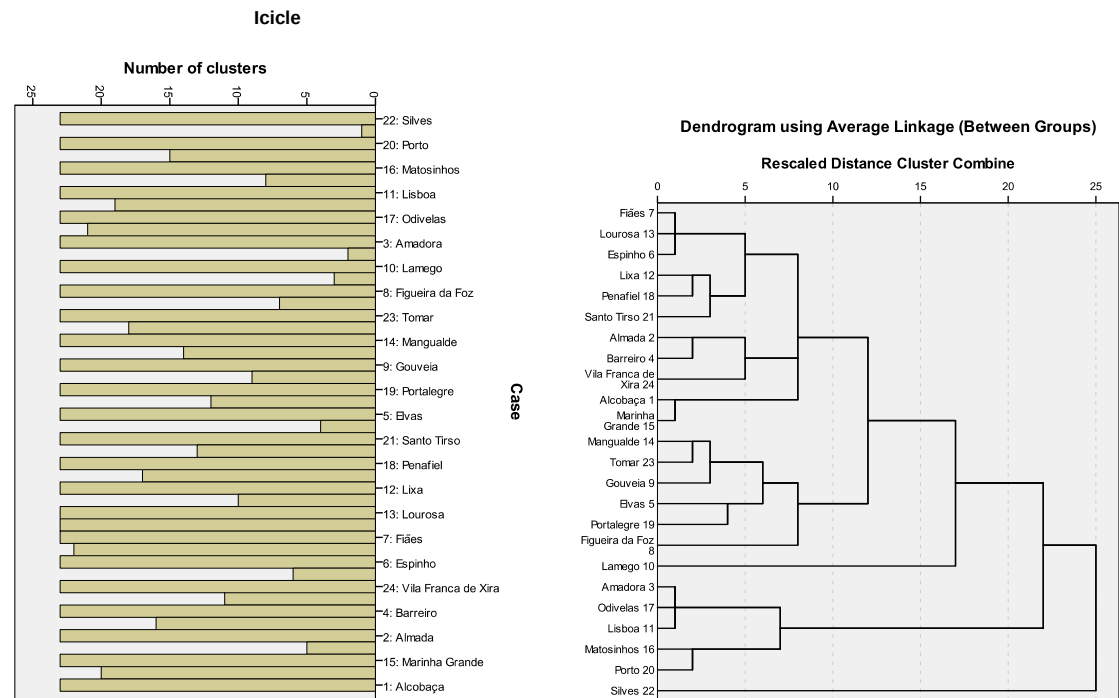


EXTENDED SURROUNDINGS

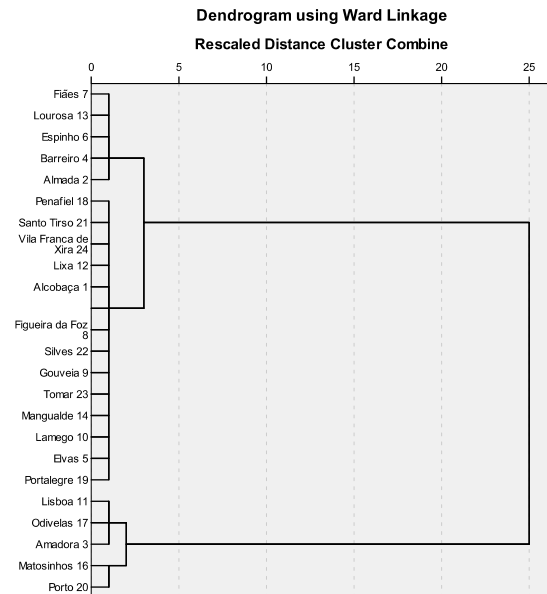
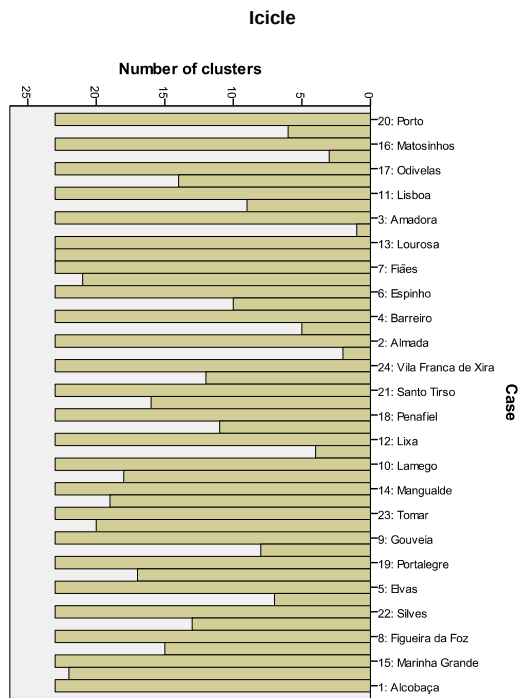
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **excluding population density**



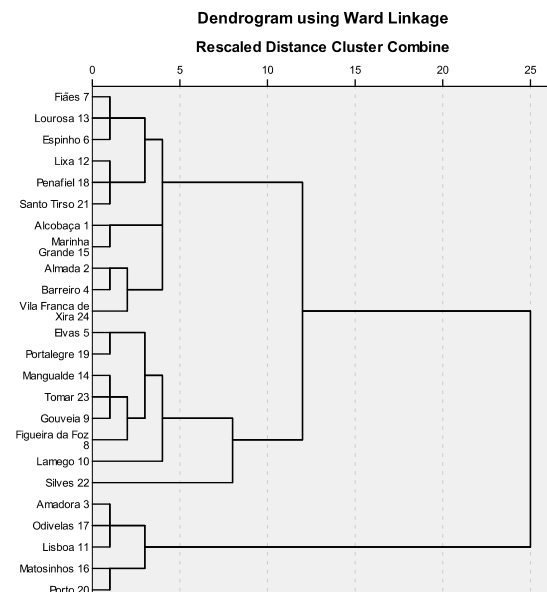
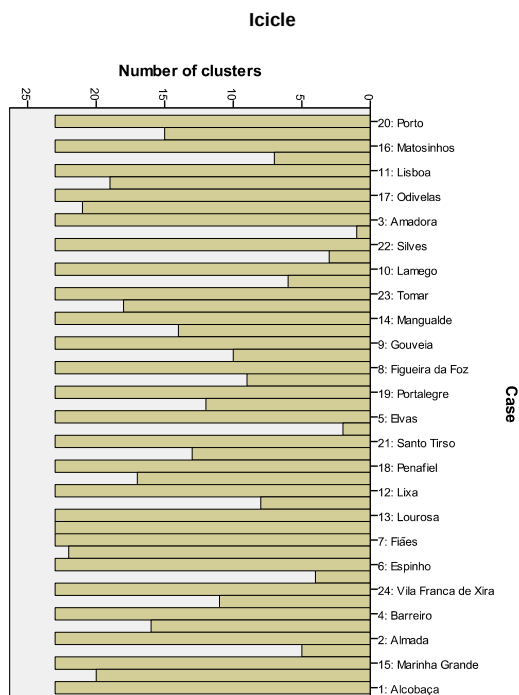
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **excluding population density**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **excluding population density**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **excluding population density**



EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	194,047
2	Almada	1	721,722
3	Amadora	2	409,264
4	Barreiro	1	307,046
5	Elvas	1	322,303
6	Espinho	1	353,769
7	Fiães	1	305,707
8	Figueira da Foz	1	215,638
9	Gouveia	1	239,683
10	Lamego	1	222,359
11	Lisboa	2	177,795
12	Lixa	1	96,916
13	Lourosa	1	305,707
14	Mangualde	1	202,013
15	Marinha Grande	1	187,721
16	Matosinhos	2	282,921
17	Odivelas	2	276,373
18	Penafiel	1	64,053
19	Portalegre	1	288,637
20	Porto	2	601,166
21	Santo Tirso	1	113,064
22	Silves	1	188,792
23	Tomar	1	212,764
24	Vila Franca de Xira	1	94,868

Number of Cases in each Cluster		
Cluster	1	19,000
	2	5,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	163,258
2	Almada	2	520,038
3	Amadora	3	139,930
4	Barreiro	1	346,803
5	Elvas	1	289,577
6	Espinho	1	391,855
7	Fiães	1	343,977
8	Figueira da Foz	1	181,800
9	Gouveia	1	201,490
10	Lamego	1	186,547
11	Lisboa	3	131,227
12	Lixa	1	73,583
13	Lourosa	1	343,977
14	Mangualde	1	163,711
15	Marinha Grande	1	156,960
16	Matosinhos	2	461,131
17	Odivelas	3	20,483
18	Penafiel	1	83,477
19	Portalegre	1	253,254
20	Porto	2	81,359
21	Santo Tirso	1	147,082
22	Silves	1	157,918
23	Tomar	1	174,238
24	Vila Franca de Xira	1	116,490

Number of Cases in each Cluster		
Cluster	1	18,000
	2	3,000
	3	3,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
 Number of Clusters: **4**
 Standardization: **none**
 Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	111,015
2	Almada	4	387,001
3	Amadora	3	139,930
4	Barreiro	4	94,630
5	Elvas	1	206,687
6	Espinho	4	65,774
7	Fiães	4	66,546
8	Figueira da Foz	1	103,037
9	Gouveia	1	93,661
10	Lamego	1	101,680
11	Lisboa	3	131,227
12	Lixa	1	116,278
13	Lourosa	4	66,546
14	Mangualde	1	65,278
15	Marinha Grande	1	110,254
16	Matosinhos	2	204,990
17	Odivelas	3	20,483
18	Penafiel	1	188,951
19	Portalegre	1	156,159
20	Porto	2	204,990
21	Santo Tirso	4	253,466
22	Silves	1	101,105
23	Tomar	1	68,526
24	Vila Franca de Xira	1	207,649

Number of Cases in each Cluster		
Cluster	1	13,000
	2	2,000
	3	3,000
	4	6,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
 Number of Clusters: **2**
 Standardization: **z scores**
 Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	4,581
2	Almada	2	4,325
3	Amadora	2	5,601
4	Barreiro	2	4,522
5	Elvas	1	5,772
6	Espinho	2	4,420
7	Fiães	2	4,424
8	Figueira da Foz	1	4,168
9	Gouveia	1	3,582
10	Lamego	1	6,920
11	Lisboa	2	4,392
12	Lixa	1	4,484
13	Lourosa	2	4,424
14	Mangualde	1	2,206
15	Marinha Grande	1	5,116
16	Matosinhos	2	5,490
17	Odivelas	2	5,036
18	Penafiel	1	4,409
19	Portalegre	1	4,706
20	Porto	2	3,481
21	Santo Tirso	1	4,986
22	Silves	1	8,535
23	Tomar	1	2,779
24	Vila Franca de Xira	2	4,217

Number of Cases in each Cluster		
Cluster	1	13,000
	2	11,000
	Valid	24,000
	Missing	,000

EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	2,931
2	Almada	3	4,325
3	Amadora	3	5,601
4	Barreiro	3	4,522
5	Elvas	1	5,334
6	Espinho	3	4,420
7	Fiães	3	4,424
8	Figueira da Foz	1	4,487
9	Gouveia	1	3,073
10	Lamego	1	6,062
11	Lisboa	3	4,392
12	Lixa	1	4,326
13	Lourosa	3	4,424
14	Mangualde	1	2,231
15	Marinha Grande	2	3,354
16	Matosinhos	3	5,490
17	Odivelas	3	5,036
18	Penafiel	1	4,335
19	Portalegre	1	4,133
20	Porto	3	3,481
21	Santo Tirso	1	5,437
22	Silves	2	6,147
23	Tomar	1	2,816
24	Vila Franca de Xira	3	4,217

Number of Cases in each Cluster		
Cluster	1	10,000
	2	3,000
	3	11,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **excluding population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	4,136
2	Almada	2	4,468
3	Amadora	3	2,514
4	Barreiro	2	3,845
5	Elvas	4	4,268
6	Espinho	2	2,760
7	Fiães	2	2,334
8	Figueira da Foz	4	4,468
9	Gouveia	4	2,505
10	Lamego	4	5,787
11	Lisboa	3	2,162
12	Lixa	2	4,643
13	Lourosa	2	2,334
14	Mangualde	4	2,680
15	Marinha Grande	2	4,314
16	Matosinhos	3	3,274
17	Odivelas	3	2,183
18	Penafiel	2	3,563
19	Portalegre	4	3,020
20	Porto	3	3,687
21	Santo Tirso	2	2,764
22	Silves	1	,000
23	Tomar	4	2,607
24	Vila Franca de Xira	2	3,924

Number of Cases in each Cluster		
Cluster	1	1,000
	2	11,000
	3	5,000
	4	7,000
	Valid	24,000
	Missing	,000

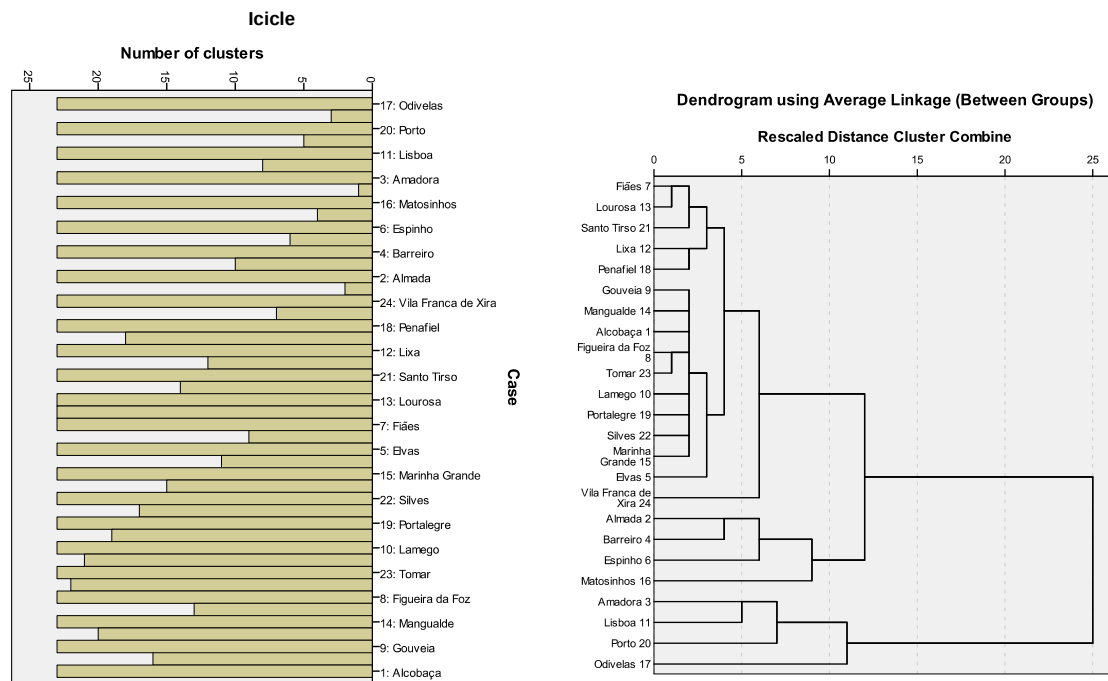
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

Distance measure: **block**

Standardization: **none**

Other: **including population density, estimated missing values for Odivelas**



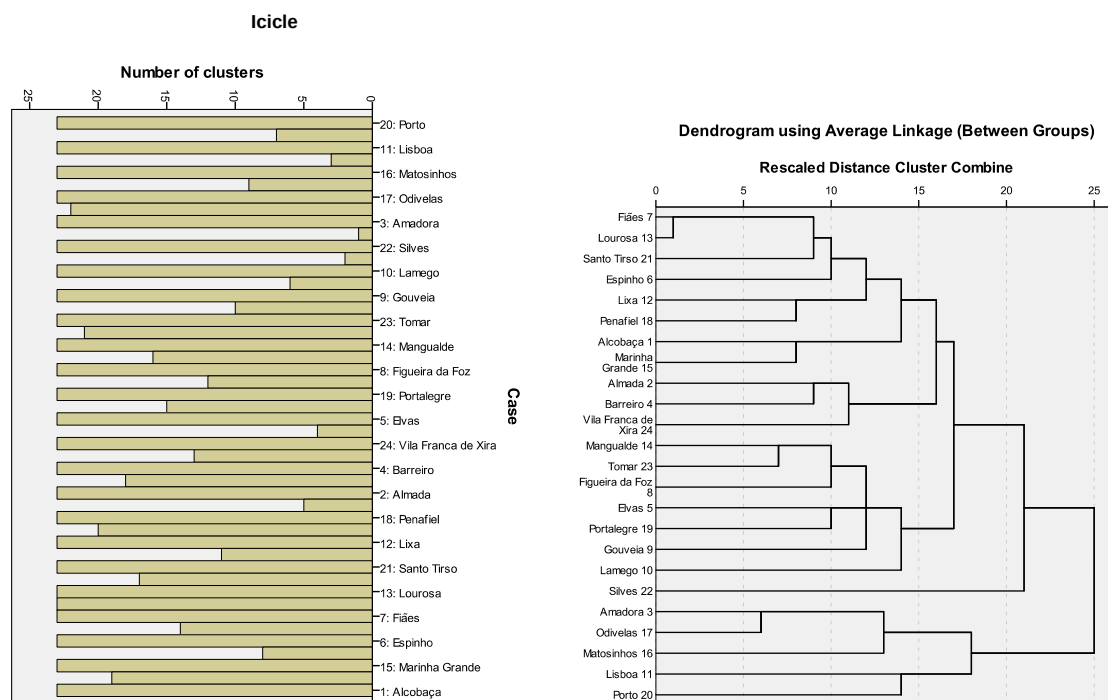
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

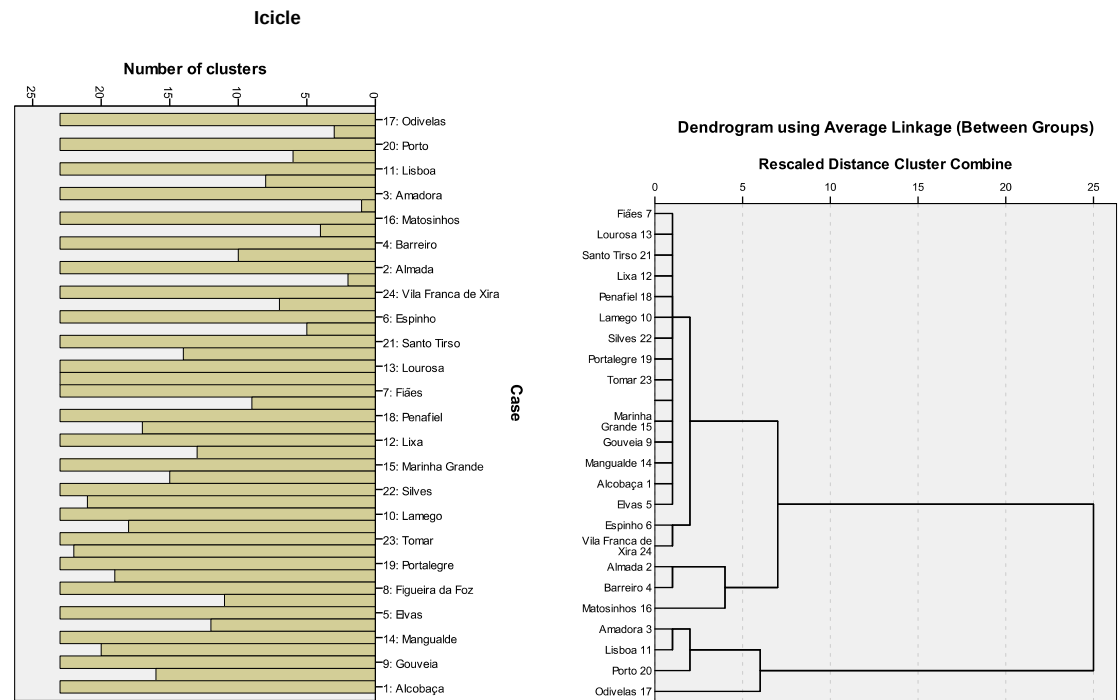
Distance measure: **block**

Standardization: **z scores**

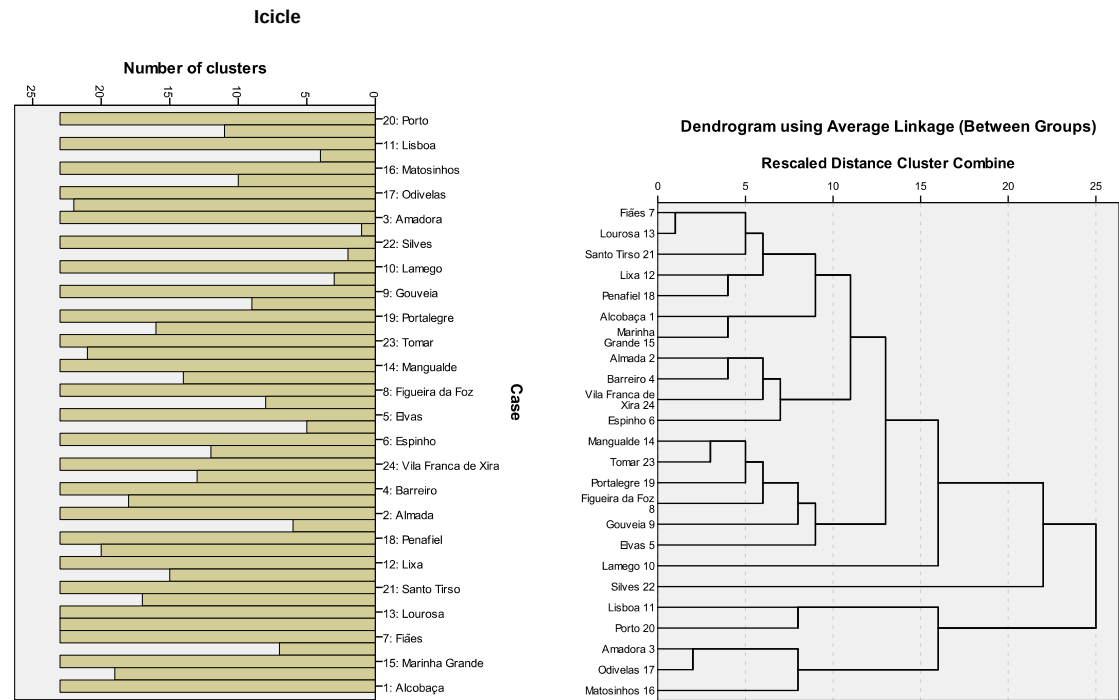
Other: **including population density, estimated missing values for Odivelas**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **including population density, estimated missing values for Odivelas**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **including population density, estimated missing values for Odivelas**



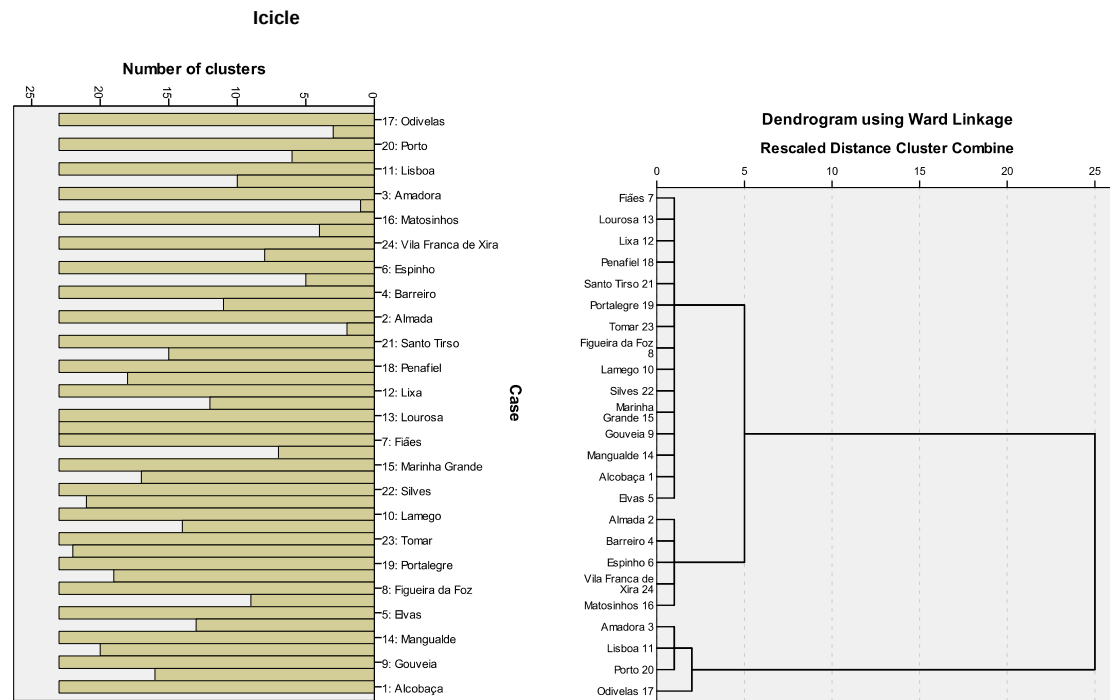
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **none**

Other: **including population density, estimated missing values for Odivelas**



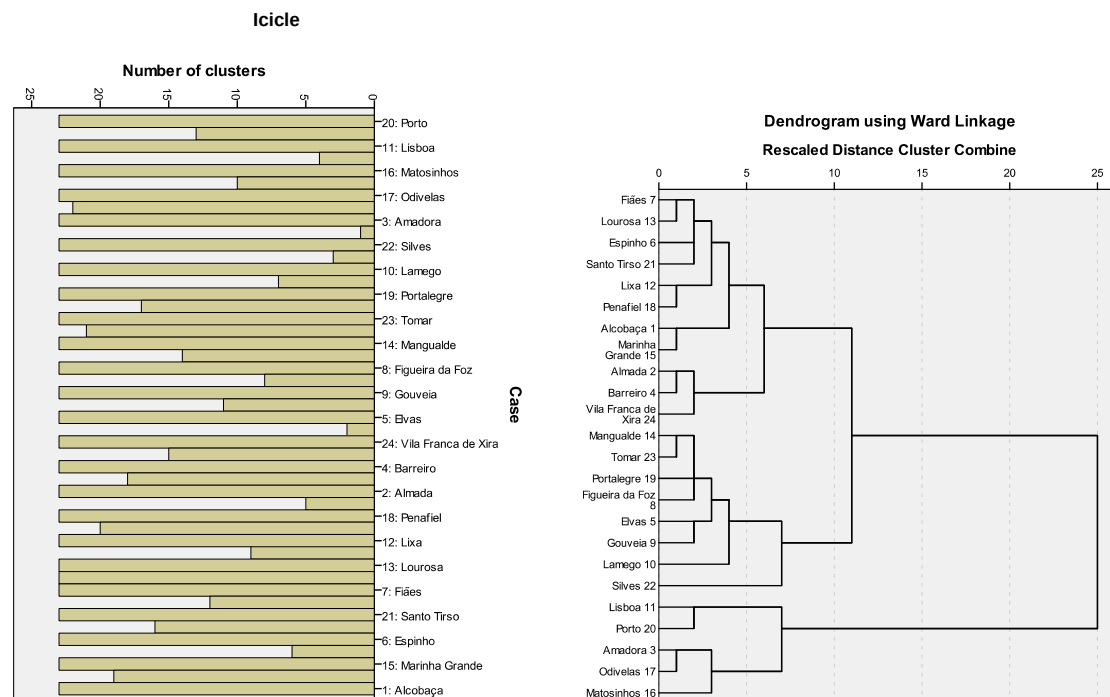
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **z scores**

Other: **including population density, estimated missing values for Odivelas**



Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	1763,221
2	Almada	1	5422,726
3	Amadora	2	1878,839
4	Barreiro	1	4858,597
5	Elvas	1	1884,529
6	Espinho	1	2073,376
7	Fiães	1	1147,247
8	Figueira da Foz	1	1346,638
9	Gouveia	1	2025,271
10	Lamego	1	1202,088
11	Lisboa	2	1673,777
12	Lixa	1	879,215
13	Lourosa	1	980,361
14	Mangualde	1	2171,212
15	Marinha Grande	1	1064,393
16	Matosinhos	1	6017,176
17	Odivelas	2	4199,467
18	Penafiel	1	1029,439
19	Portalegre	1	1551,112
20	Porto	2	2596,407
21	Santo Tirso	1	1222,363
22	Silves	1	1422,939
23	Tomar	1	1544,014
24	Vila Franca de Xira	1	2513,346

Number of Cases in each Cluster		
Cluster	1	20,000
	2	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	951,399
2	Almada	2	1637,725
3	Amadora	3	1878,839
4	Barreiro	2	1837,458
5	Elvas	1	1165,335
6	Espinho	1	2921,136
7	Fiães	1	1197,563
8	Figueira da Foz	1	594,790
9	Gouveia	1	1182,179
10	Lamego	1	524,806
11	Lisboa	3	1673,777
12	Lixa	1	476,123
13	Lourosa	1	1157,870
14	Mangualde	1	1355,059
15	Marinha Grande	1	643,144
16	Matosinhos	2	3203,139
17	Odivelas	3	4199,467
18	Penafiel	1	456,709
19	Portalegre	1	765,339
20	Porto	3	2596,407
21	Santo Tirso	1	884,957
22	Silves	1	680,948
23	Tomar	1	695,541
24	Vila Franca de Xira	1	3072,208

Number of Cases in each Cluster		
Cluster	1	17,000
	2	3,000
	3	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**

Number of Clusters: **4**

Standardization: **none**

Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	951,399
2	Almada	4	1637,725
3	Amadora	3	1727,302
4	Barreiro	4	1837,458
5	Elvas	1	1165,335
6	Espinho	1	2921,136
7	Fiães	1	1197,563
8	Figueira da Foz	1	594,790
9	Gouveia	1	1182,179
10	Lamego	1	524,806
11	Lisboa	3	587,760
12	Lixa	1	476,123
13	Lourosa	1	1157,870
14	Mangualde	1	1355,059
15	Marinha Grande	1	643,144
16	Matosinhos	4	3203,139
17	Odivelas	2	,000
18	Penafiel	1	456,709
19	Portalegre	1	765,339
20	Porto	3	1966,049
21	Santo Tirso	1	884,957
22	Silves	1	680,948
23	Tomar	1	695,541
24	Vila Franca de Xira	1	3072,208

Number of Cases in each Cluster		
Cluster		
1		17,000
2		1,000
3		3,000
4		3,000
Valid		24,000
Missing		,000

Cluster Analysis Method: **K-means**

Number of Clusters: **2**

Standardization: **z scores**

Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	6,704
2	Almada	2	6,799
3	Amadora	2	6,976
4	Barreiro	2	7,981
5	Elvas	1	9,353
6	Espinho	2	7,159
7	Fiães	1	6,536
8	Figueira da Foz	1	6,767
9	Gouveia	1	8,724
10	Lamego	1	10,284
11	Lisboa	2	9,849
12	Lixa	1	8,184
13	Lourosa	1	6,700
14	Mangualde	1	4,374
15	Marinha Grande	1	7,895
16	Matosinhos	2	6,506
17	Odivelas	2	7,501
18	Penafiel	1	6,224
19	Portalegre	1	6,813
20	Porto	2	8,837
21	Santo Tirso	1	6,935
22	Silves	1	12,484
23	Tomar	1	5,320
24	Vila Franca de Xira	1	7,486

Number of Cases in each Cluster		
Cluster		
1		16,000
2		8,000
Valid		24,000
Missing		,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	4,525
2	Almada	3	8,208
3	Amadora	3	6,028
4	Barreiro	1	7,983
5	Elvas	1	9,415
6	Espinho	1	7,398
7	Fiães	1	6,484
8	Figueira da Foz	1	6,794
9	Gouveia	1	8,758
10	Lamego	1	9,978
11	Lisboa	3	8,836
12	Lixa	1	8,348
13	Lourosa	1	6,617
14	Mangualde	1	4,737
15	Marinha Grande	2	6,680
16	Matosinhos	3	6,242
17	Odivelas	3	7,069
18	Penafiel	1	6,037
19	Portalegre	1	6,801
20	Porto	3	8,484
21	Santo Tirso	1	6,600
22	Silves	2	9,231
23	Tomar	1	5,273
24	Vila Franca de Xira	1	7,060

Number of Cases in each Cluster		
Cluster	1	15,000
	2	3,000
	3	6,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **including population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	7,207
2	Almada	1	8,219
3	Amadora	2	3,957
4	Barreiro	1	7,804
5	Elvas	1	9,689
6	Espinho	1	7,050
7	Fiães	1	6,220
8	Figueira da Foz	1	6,808
9	Gouveia	1	9,206
10	Lamego	1	10,455
11	Lisboa	3	4,562
12	Lixa	1	8,487
13	Lourosa	1	6,392
14	Mangualde	1	4,896
15	Marinha Grande	1	7,632
16	Matosinhos	2	5,922
17	Odivelas	2	3,601
18	Penafiel	1	6,113
19	Portalegre	1	7,213
20	Porto	3	4,562
21	Santo Tirso	1	6,526
22	Silves	4	,000
23	Tomar	1	5,379
24	Vila Franca de Xira	1	6,781

Number of Cases in each Cluster		
Cluster	1	18,000
	2	3,000
	3	2,000
	4	1,000
	Valid	24,000
	Missing	,000

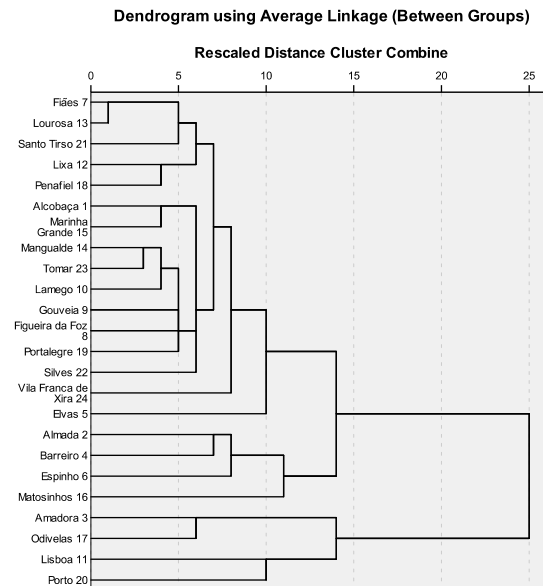
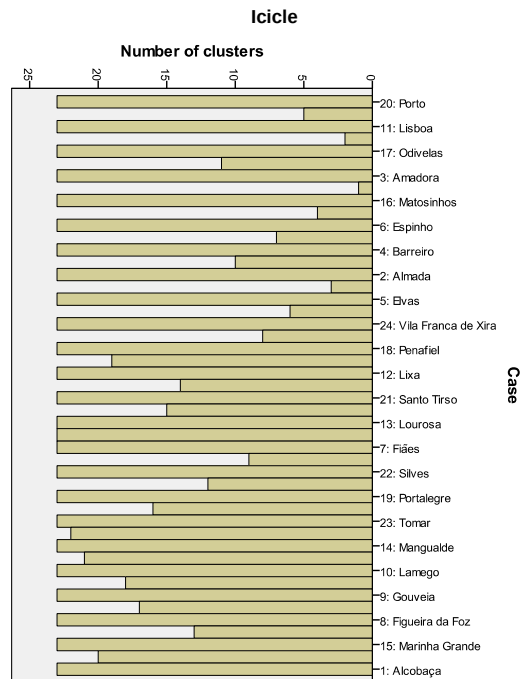
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

Distance measure: **block**

Standardization: **none**

Other: **excluding population density, estimated missing values for Odivelas**



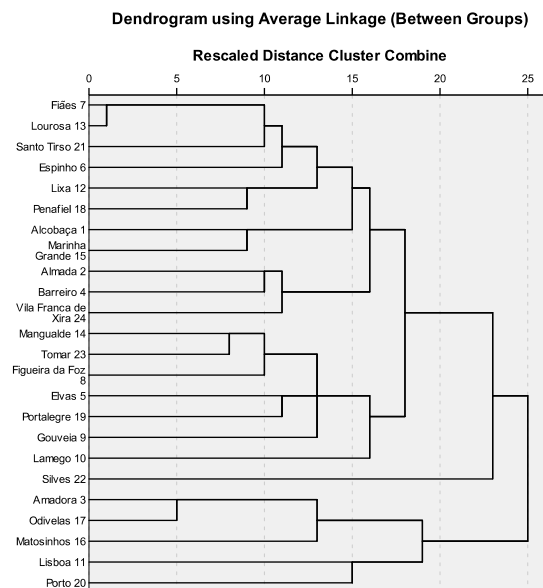
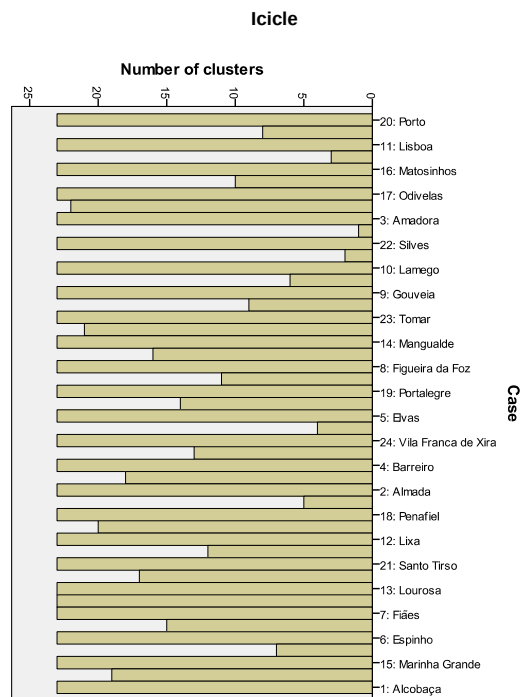
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **(average) between-groups linkage**

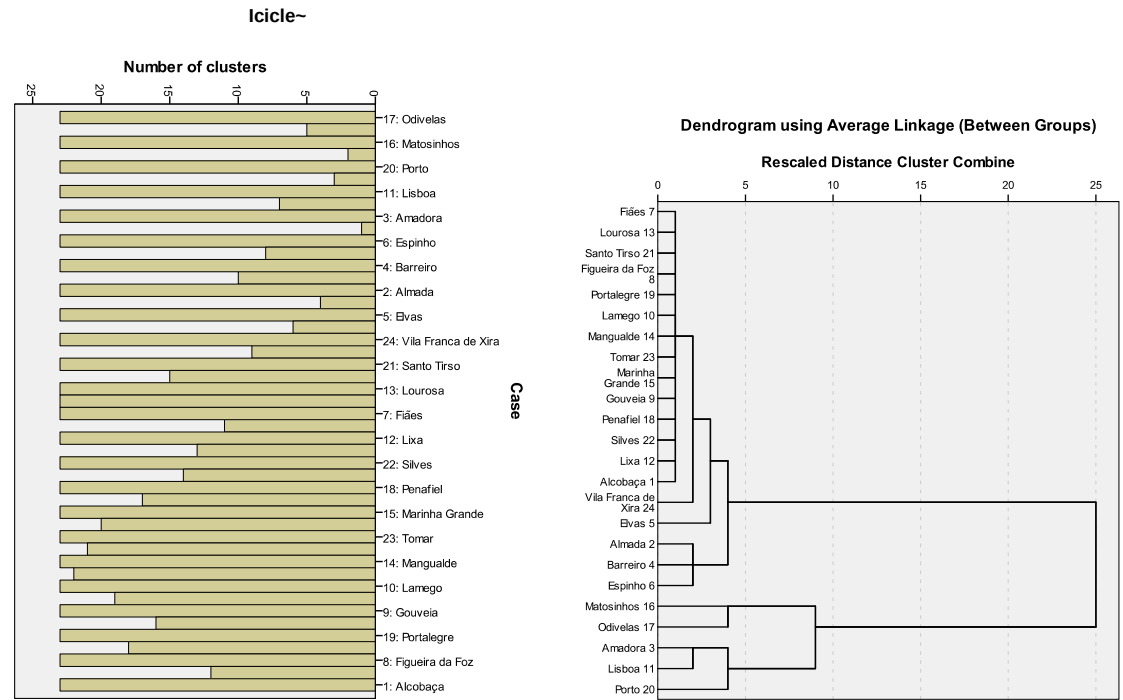
Distance measure: **block**

Standardization: **z scores**

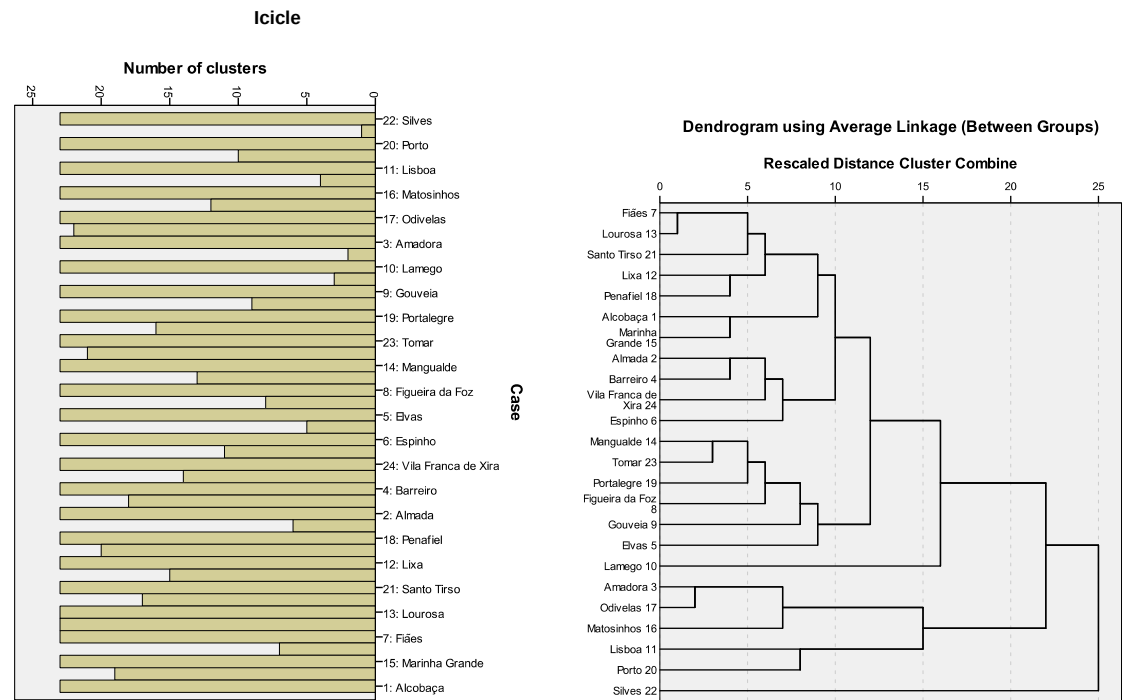
Other: **excluding population density, estimated missing values for Odivelas**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **excluding population density, estimated missing values for Odivelas**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **excluding population density, estimated missing values for Odivelas**



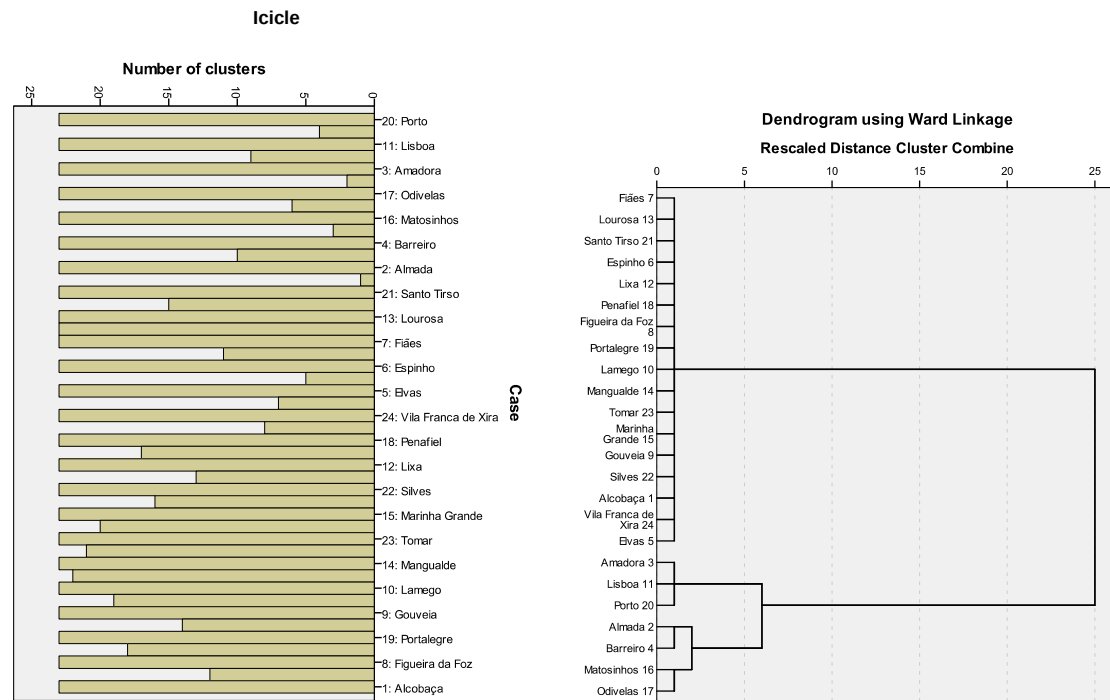
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **none**

Other: **excluding population density, estimated missing values for Odivelas**



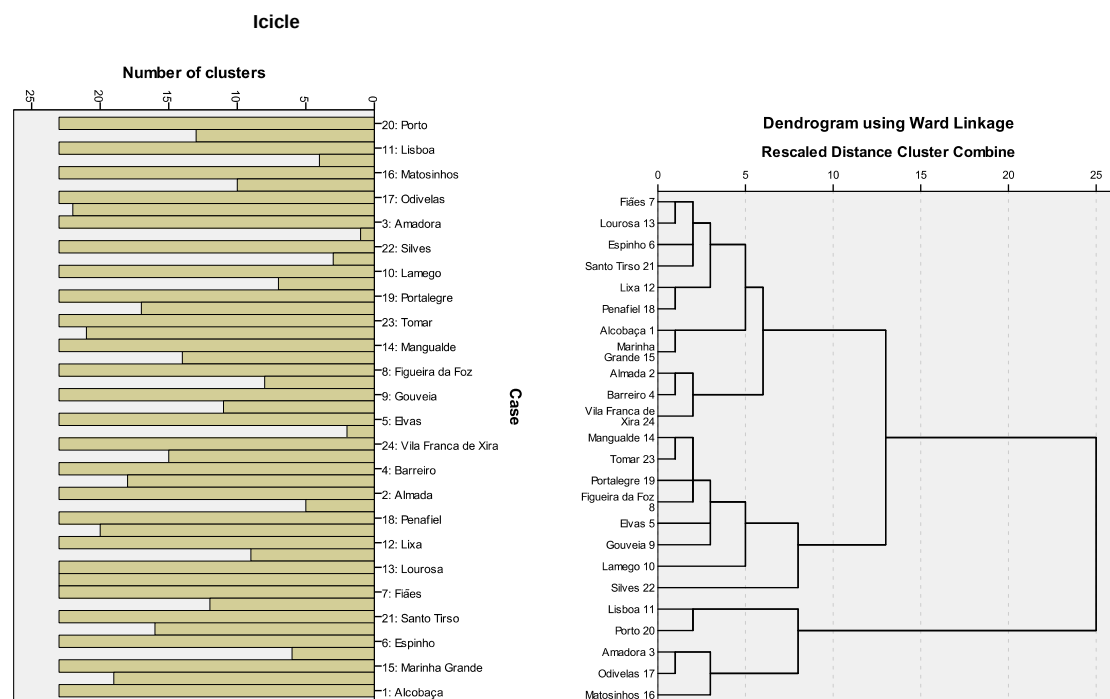
Cluster Analysis Method: **Hierarchical**

Cluster/Aggregation Method: **ward**

Distance measure: **squared Euclidian distance**

Standardization: **z scores**

Other: **excluding population density, estimated missing values for Odivelas**



Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	548,686
2	Almada	1	1247,715
3	Amadora	2	684,486
4	Barreiro	1	1015,246
5	Elvas	1	918,594
6	Espinho	1	597,318
7	Fiães	1	288,220
8	Figueira da Foz	1	465,098
9	Gouveia	1	489,636
10	Lamego	1	414,872
11	Lisboa	2	610,299
12	Lixa	1	470,530
13	Lourosa	1	309,534
14	Mangualde	1	444,157
15	Marinha Grande	1	390,507
16	Matosinhos	1	1824,671
17	Odivelas	2	987,532
18	Penafiel	1	292,706
19	Portalegre	1	525,141
20	Porto	2	934,156
21	Santo Tirso	1	348,337
22	Silves	1	498,329
23	Tomar	1	400,301
24	Vila Franca de Xira	1	597,174

Number of Cases in each Cluster		
Cluster	1	20,000
	2	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	425,403
2	Almada	2	539,704
3	Amadora	3	752,459
4	Barreiro	2	983,584
5	Elvas	1	832,448
6	Espinho	1	794,056
7	Fiães	1	413,876
8	Figueira da Foz	1	338,944
9	Gouveia	1	314,006
10	Lamego	1	239,154
11	Lisboa	3	377,473
12	Lixa	1	429,165
13	Lourosa	1	426,549
14	Mangualde	1	271,227
15	Marinha Grande	1	240,087
16	Matosinhos	2	656,444
17	Odivelas	2	1174,659
18	Penafiel	1	218,017
19	Portalegre	1	363,643
20	Porto	3	824,549
21	Santo Tirso	1	371,578
22	Silves	1	356,136
23	Tomar	1	219,147
24	Vila Franca de Xira	1	603,526

Number of Cases in each Cluster		
Cluster	1	17,000
	2	4,000
	3	3,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**

Number of Clusters: **4**

Standardization: **none**

Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	425,403
2	Almada	2	356,773
3	Amadora	4	607,412
4	Barreiro	2	666,056
5	Elvas	1	832,448
6	Espinho	1	794,056
7	Fiães	1	413,876
8	Figueira da Foz	1	338,944
9	Gouveia	1	314,006
10	Lamego	1	239,154
11	Lisboa	3	519,264
12	Lixa	1	429,165
13	Lourosa	1	426,549
14	Mangualde	1	271,227
15	Marinha Grande	1	240,087
16	Matosinhos	2	811,652
17	Odivelas	4	607,412
18	Penafiel	1	218,017
19	Portalegre	1	363,643
20	Porto	3	519,264
21	Santo Tirso	1	371,578
22	Silves	1	356,136
23	Tomar	1	219,147
24	Vila Franca de Xira	1	603,526

Number of Cases in each Cluster		
Cluster		
1		17,000
2		3,000
3		2,000
4		2,000
Valid		24,000
Missing		,000

Cluster Analysis Method: **K-means**

Number of Clusters: **2**

Standardization: **z scores**

Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	6,683
2	Almada	2	6,137
3	Amadora	2	6,740
4	Barreiro	2	7,196
5	Elvas	1	9,272
6	Espinho	2	6,518
7	Fiães	1	6,589
8	Figueira da Foz	1	6,811
9	Gouveia	1	8,620
10	Lamego	1	10,218
11	Lisboa	2	10,123
12	Lixa	1	8,145
13	Lourosa	1	6,753
14	Mangualde	1	4,199
15	Marinha Grande	1	7,990
16	Matosinhos	2	6,450
17	Odivelas	2	7,132
18	Penafiel	1	6,205
19	Portalegre	1	6,752
20	Porto	2	9,262
21	Santo Tirso	1	7,035
22	Silves	1	12,369
23	Tomar	1	5,356
24	Vila Franca de Xira	2	7,839

Number of Cases in each Cluster		
Cluster		
1		15,000
2		9,000
Valid		24,000
Missing		,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **excluding population density, estimated missing values for Odivelas**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	4,519
2	Almada	3	7,230
3	Amadora	3	6,191
4	Barreiro	2	7,937
5	Elvas	2	9,261
6	Espinho	3	7,085
7	Fiães	2	6,641
8	Figueira da Foz	2	6,755
9	Gouveia	2	8,510
10	Lamego	2	9,817
11	Lisboa	3	9,235
12	Lixa	2	8,250
13	Lourosa	2	6,780
14	Mangualde	2	4,637
15	Marinha Grande	1	6,677
16	Matosinhos	3	5,916
17	Odivelas	3	7,027
18	Penafiel	2	6,071
19	Portalegre	2	6,491
20	Porto	3	8,478
21	Santo Tirso	2	6,785
22	Silves	1	9,231
23	Tomar	2	5,245
24	Vila Franca de Xira	2	7,052

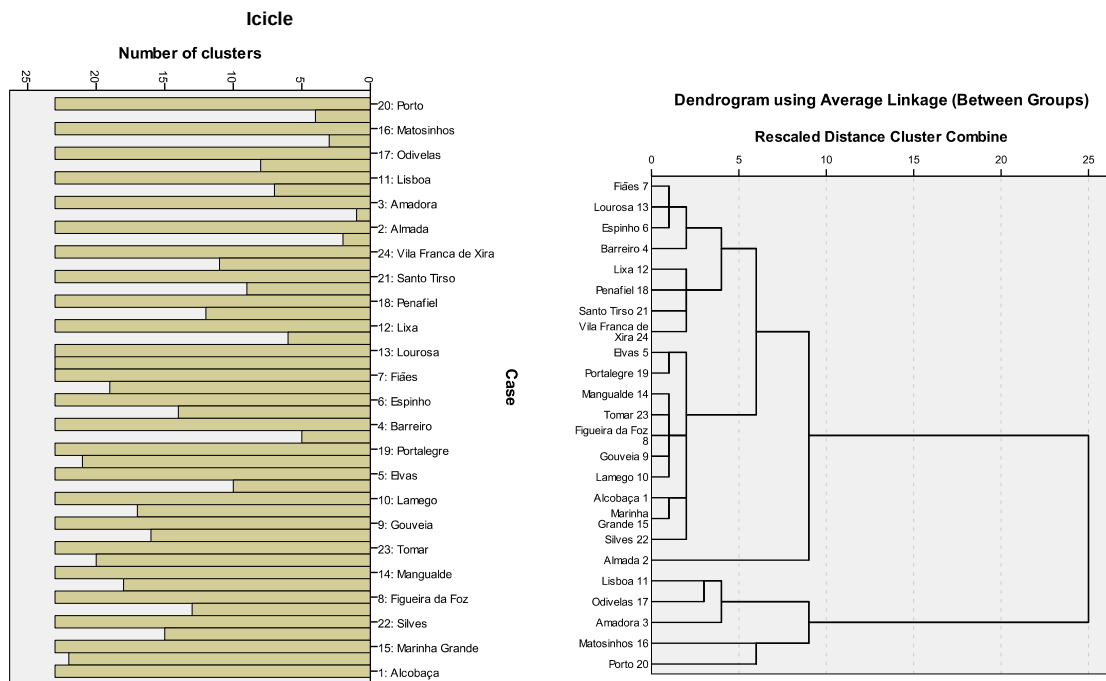
Number of Cases in each Cluster		
Cluster	1	3,000
	2	14,000
	3	7,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **excluding population density, estimated missing values for Odivelas**

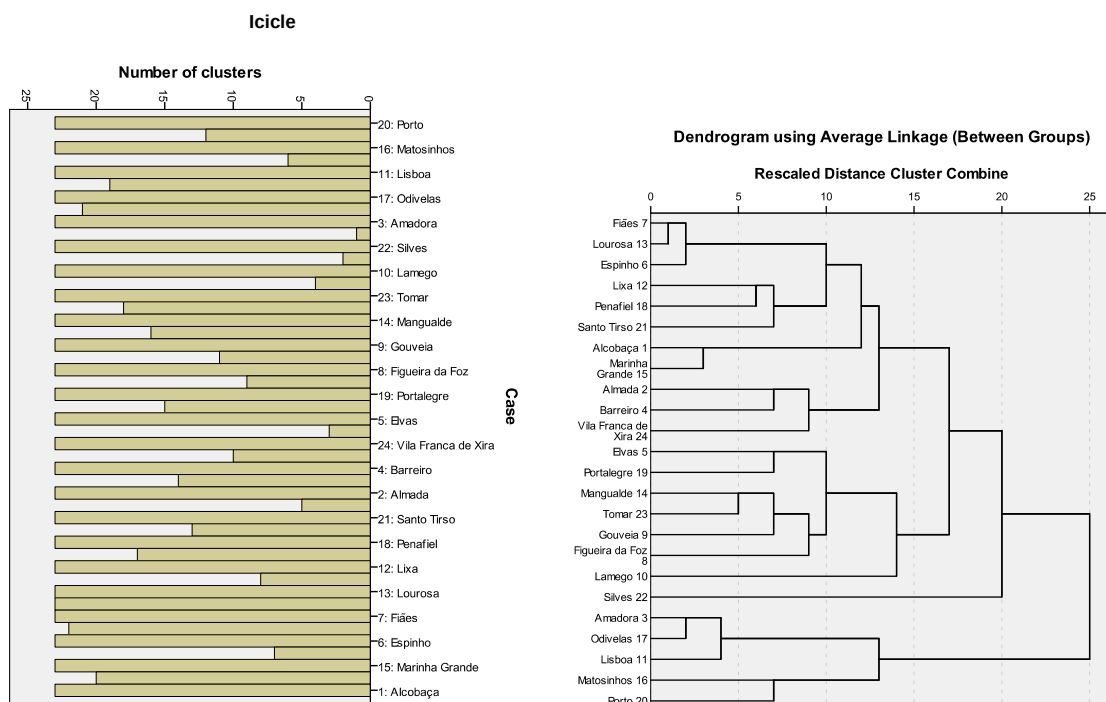
Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	4	7,678
2	Almada	1	5,728
3	Amadora	1	8,776
4	Barreiro	1	6,959
5	Elvas	4	8,396
6	Espinho	1	5,368
7	Fiães	1	6,184
8	Figueira da Foz	4	6,512
9	Gouveia	4	7,669
10	Lamego	4	9,052
11	Lisboa	3	4,524
12	Lixa	4	8,840
13	Lourosa	1	6,295
14	Mangualde	4	4,249
15	Marinha Grande	1	7,855
16	Matosinhos	1	7,669
17	Odivelas	1	7,736
18	Penafiel	4	6,882
19	Portalegre	4	5,378
20	Porto	3	4,524
21	Santo Tirso	1	6,856
22	Silves	2	,000
23	Tomar	4	4,773
24	Vila Franca de Xira	1	6,133

Number of Cases in each Cluster		
Cluster	1	11,000
	2	1,000
	3	2,000
	4	10,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **none**
Other: **including population density, variable simplification**

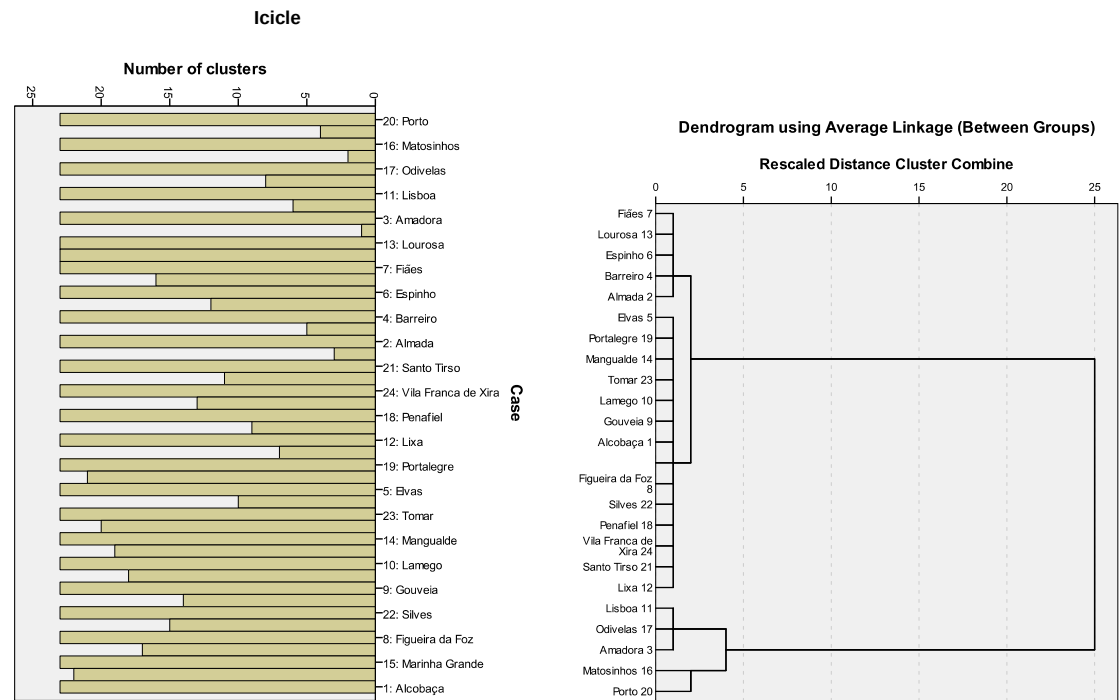


Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **z scores**
Other: **including population density, variable simplification**

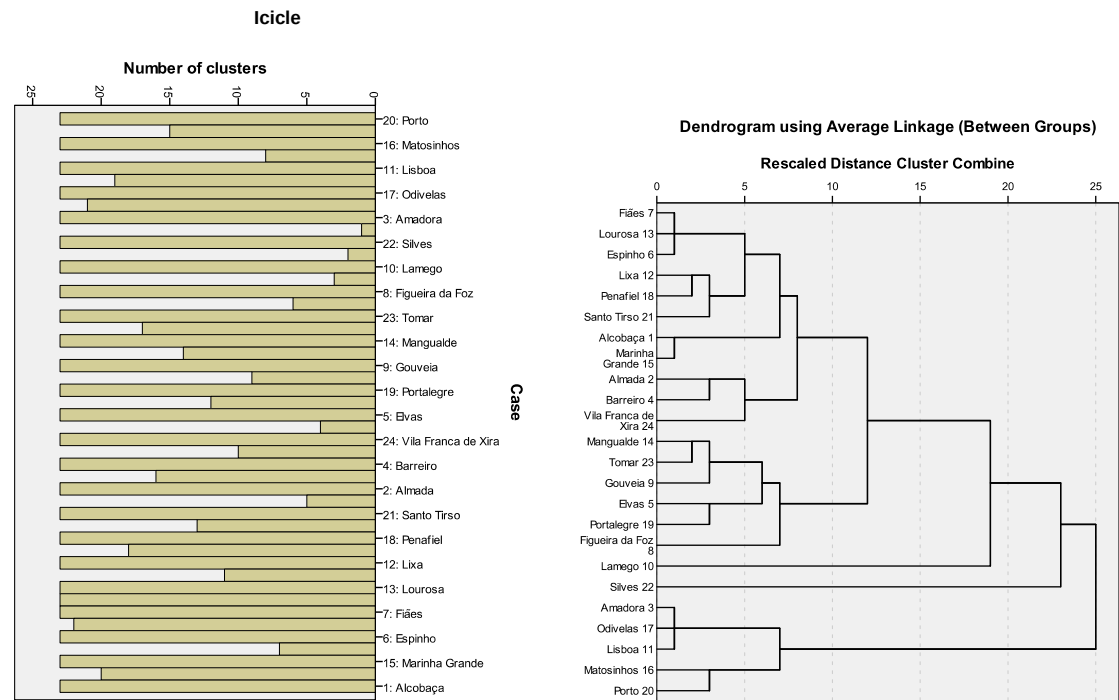


EXTENDED SURROUNDINGS

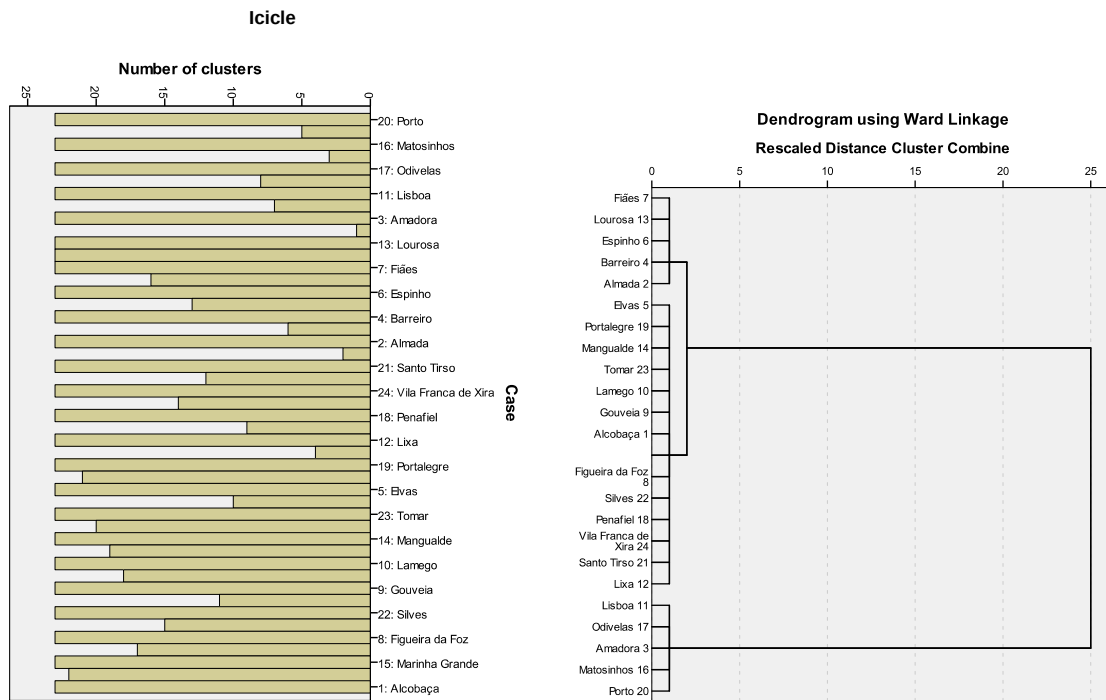
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **including population density, variable simplification**



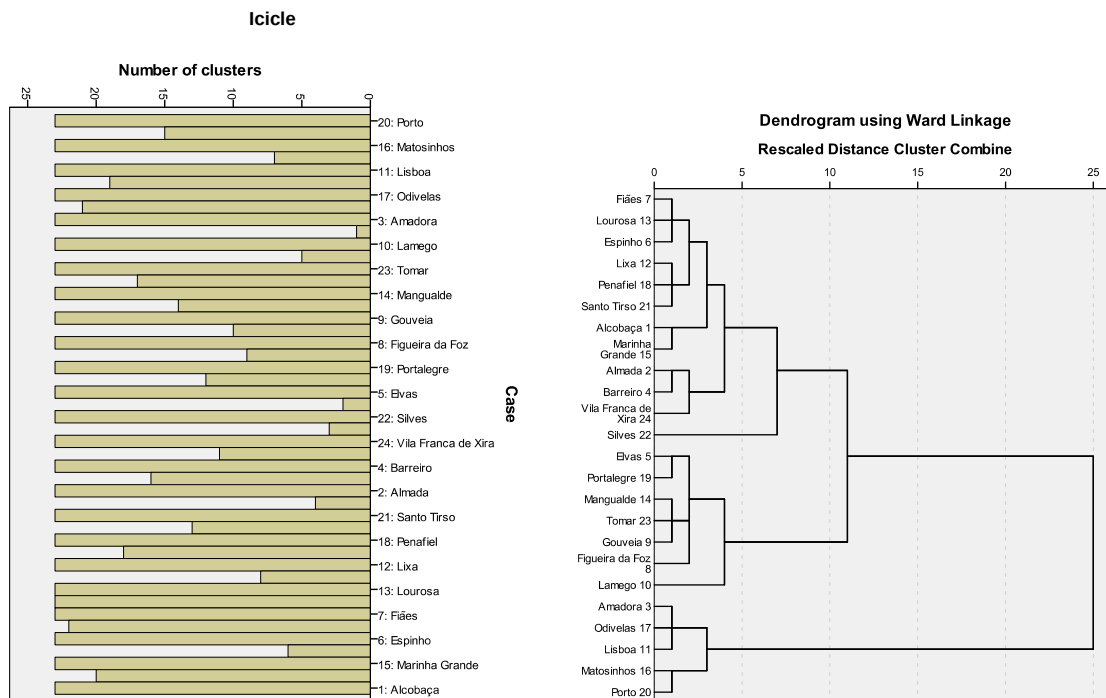
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **including population density, variable simplification**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **including population density, variable simplification**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **including population density, variable simplification**



EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **including population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	535,153
2	Almada	1	1793,160
3	Amadora	2	1291,118
4	Barreiro	1	975,066
5	Elvas	1	758,094
6	Espinho	1	1024,477
7	Fiães	1	902,944
8	Figueira da Foz	1	610,479
9	Gouveia	1	687,102
10	Lamego	1	583,415
11	Lisboa	2	308,157
12	Lixa	1	123,623
13	Lourosa	1	902,944
14	Mangualde	1	593,621
15	Marinha Grande	1	514,770
16	Matosinhos	2	541,508
17	Odivelas	2	772,467
18	Penafiel	1	144,940
19	Portalegre	1	736,664
20	Porto	2	1820,750
21	Santo Tirso	1	361,991
22	Silves	1	606,513
23	Tomar	1	624,453
24	Vila Franca de Xira	1	238,339

Number of Cases in each Cluster		
Cluster	1	19,000
	2	5,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **including population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	535,153
2	Almada	1	1793,160
3	Amadora	3	836,142
4	Barreiro	1	975,066
5	Elvas	1	758,094
6	Espinho	1	1024,477
7	Fiães	1	902,944
8	Figueira da Foz	1	610,479
9	Gouveia	1	687,102
10	Lamego	1	583,415
11	Lisboa	3	233,431
12	Lixa	1	123,623
13	Lourosa	1	902,944
14	Mangualde	1	593,621
15	Marinha Grande	1	514,770
16	Matosinhos	3	981,980
17	Odivelas	3	324,332
18	Penafiel	1	144,940
19	Portalegre	1	736,664
20	Porto	2	,000
21	Santo Tirso	1	361,991
22	Silves	1	606,513
23	Tomar	1	624,453
24	Vila Franca de Xira	1	238,339

Number of Cases in each Cluster		
Cluster	1	19,000
	2	1,000
	3	4,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**

Number of Clusters: **4**

Standardization: **none, variable simplification**

Other: **including population density**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	108,375
2	Almada	4	1013,797
3	Amadora	3	517,549
4	Barreiro	4	211,834
5	Elvas	1	237,732
6	Espinho	4	247,137
7	Fiães	4	129,997
8	Figueira da Foz	1	99,169
9	Gouveia	1	124,599
10	Lamego	1	70,193
11	Lisboa	3	514,177
12	Lixa	1	474,735
13	Lourosa	4	129,997
14	Mangualde	1	55,023
15	Marinha Grande	1	112,786
16	Matosinhos	2	661,992
17	Odivelas	3	71,782
18	Penafiel	4	657,825
19	Portalegre	1	191,574
20	Porto	2	661,992
21	Santo Tirso	4	436,219
22	Silves	1	112,375
23	Tomar	1	66,619
24	Vila Franca de Xira	4	577,887

Number of Cases in each Cluster		
Cluster		
1		11,000
2		2,000
3		3,000
4		8,000
Valid		24,000
Missing		,000

Cluster Analysis Method: **K-means**

Number of Clusters: **2**

Standardization: **z scores**

Other: **including population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	4,045
2	Almada	1	5,700
3	Amadora	2	2,641
4	Barreiro	1	4,166
5	Elvas	1	6,595
6	Espinho	1	4,179
7	Fiães	1	3,839
8	Figueira da Foz	1	4,668
9	Gouveia	1	4,320
10	Lamego	1	7,967
11	Lisboa	2	2,133
12	Lixa	1	4,264
13	Lourosa	1	3,942
14	Mangualde	1	2,460
15	Marinha Grande	1	4,690
16	Matosinhos	2	3,262
17	Odivelas	2	2,241
18	Penafiel	1	3,833
19	Portalegre	1	5,637
20	Porto	2	3,857
21	Santo Tirso	1	4,212
22	Silves	1	8,732
23	Tomar	1	3,316
24	Vila Franca de Xira	1	3,830

Number of Cases in each Cluster		
Cluster		
1		19,000
2		5,000
Valid		24,000
Missing		,000

EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **including population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	3,720
2	Almada	2	4,629
3	Amadora	3	2,641
4	Barreiro	2	3,817
5	Elvas	1	4,129
6	Espinho	2	2,894
7	Fiães	2	2,560
8	Figueira da Foz	1	4,347
9	Gouveia	1	2,496
10	Lamego	1	6,188
11	Lisboa	3	2,133
12	Lixa	2	4,496
13	Lourosa	2	2,641
14	Mangualde	1	2,589
15	Marinha Grande	2	4,079
16	Matosinhos	3	3,262
17	Odivelas	3	2,241
18	Penafiel	2	3,584
19	Portalegre	1	2,939
20	Porto	3	3,857
21	Santo Tirso	2	2,985
22	Silves	2	8,772
23	Tomar	1	2,770
24	Vila Franca de Xira	2	4,007

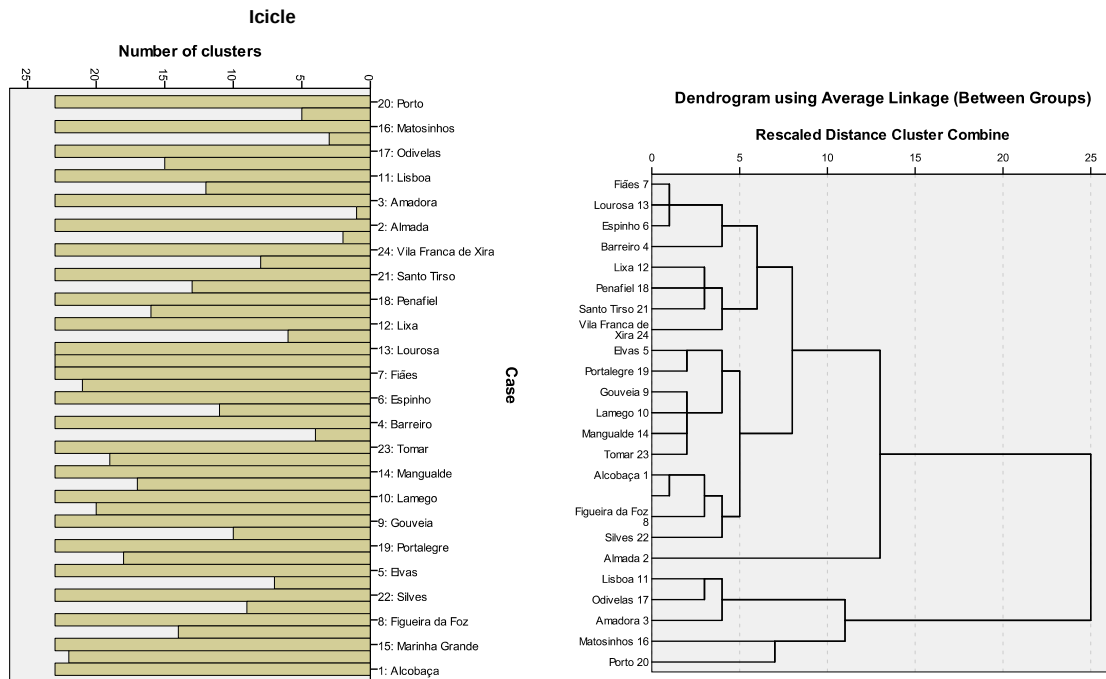
Number of Cases in each Cluster		
Cluster	1	7,000
	2	12,000
	3	15,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **including population density, variable simplification**

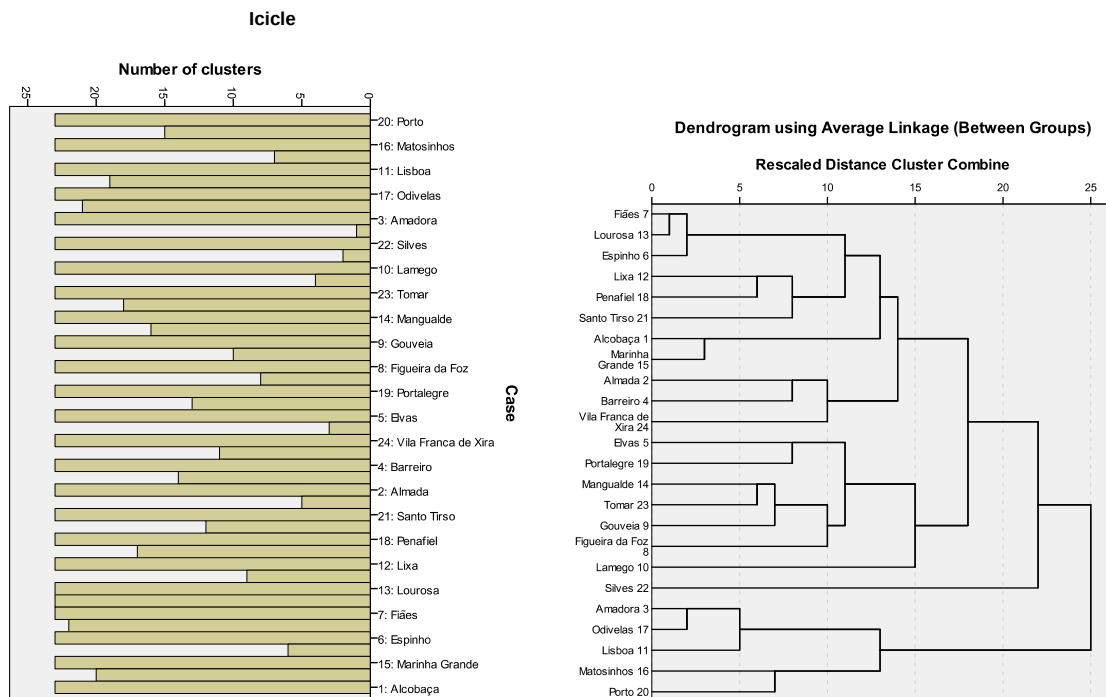
Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	3,947
2	Almada	2	4,549
3	Amadora	3	2,641
4	Barreiro	2	3,852
5	Elvas	4	4,129
6	Espinho	2	2,623
7	Fiães	2	2,224
8	Figueira da Foz	4	4,347
9	Gouveia	4	2,496
10	Lamego	4	6,188
11	Lisboa	3	2,133
12	Lixa	2	4,384
13	Lourosa	2	2,307
14	Mangualde	4	2,589
15	Marinha Grande	2	4,216
16	Matosinhos	3	3,262
17	Odivelas	3	2,241
18	Penafiel	2	3,374
19	Portalegre	4	2,939
20	Porto	3	3,857
21	Santo Tirso	2	2,697
22	Silves	1	,000
23	Tomar	4	2,770
24	Vila Franca de Xira	2	3,938

Number of Cases in each Cluster		
Cluster	1	1,000
	2	11,000
	3	5,000
	4	7,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **none**
Other: **excluding population density, variable simplification**

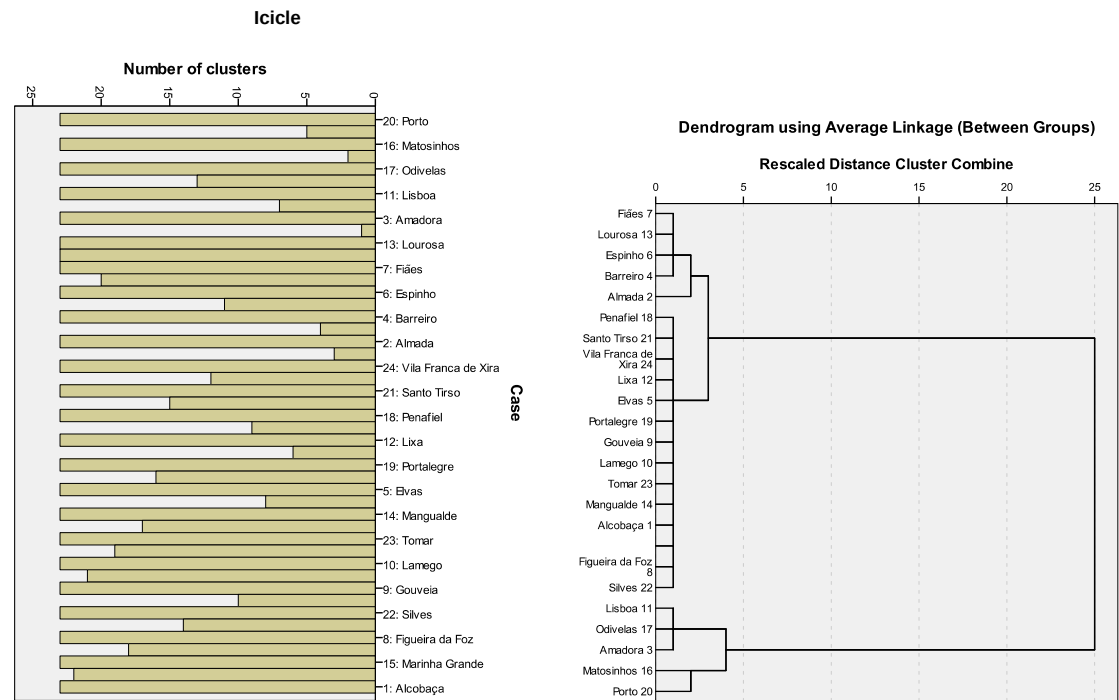


Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **block**
Standardization: **z scores**
Other: **excluding population density, variable simplification**

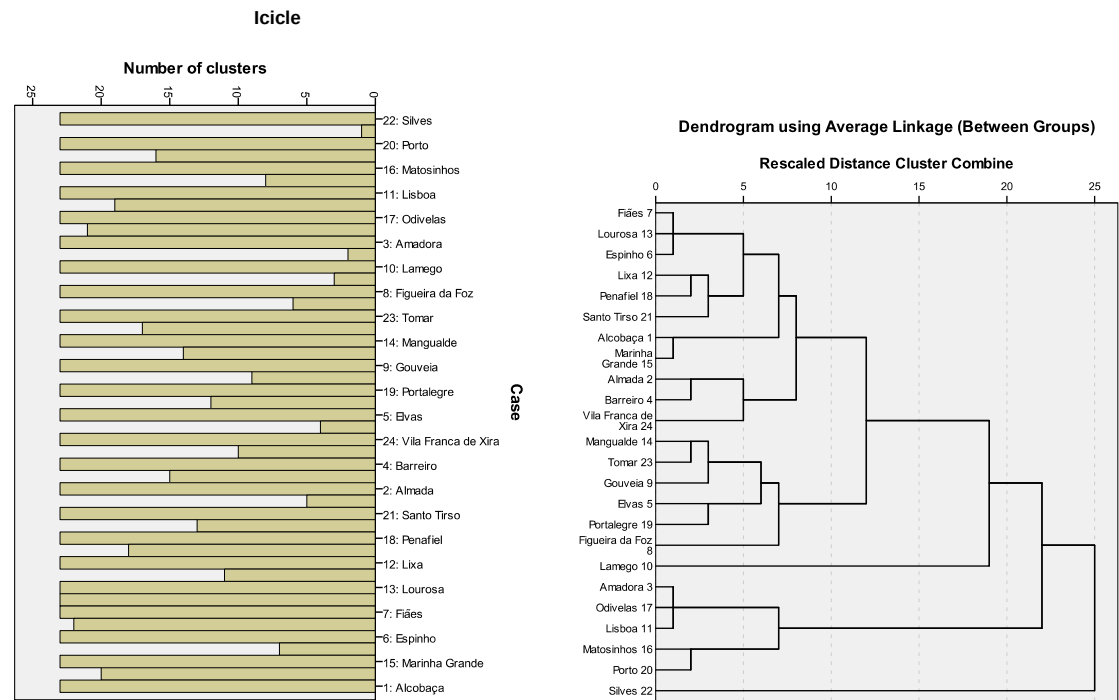


EXTENDED SURROUNDINGS

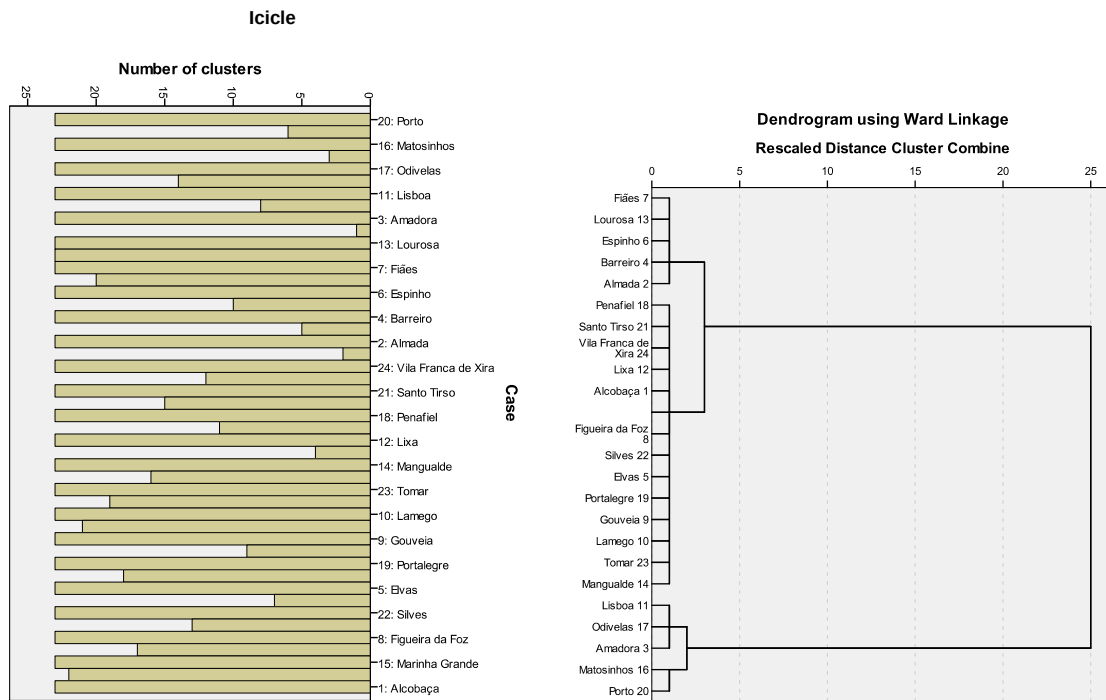
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **excluding population density, variable simplification**



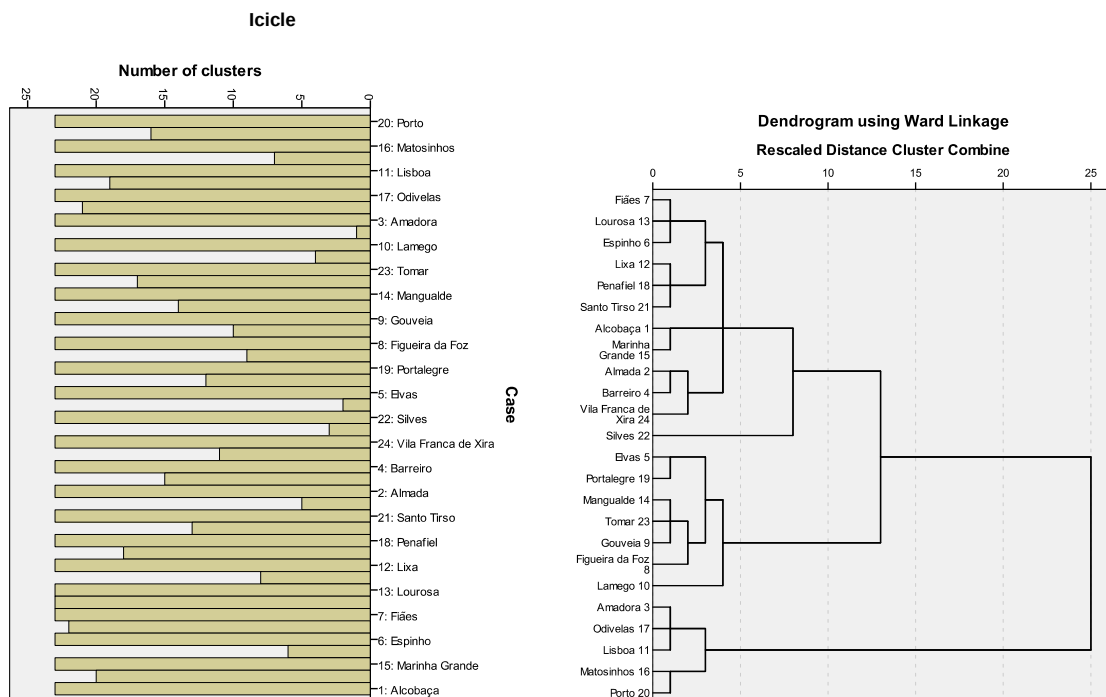
Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **(average) between-groups linkage**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **excluding population density, variable simplification**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **none**
Other: **excluding population density, variable simplification**



Cluster Analysis Method: **Hierarchical**
Cluster/Aggregation Method: **ward**
Distance measure: **squared Euclidian distance**
Standardization: **z scores**
Other: **excluding population density, variable simplification**



EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **2**
Standardization: **none**
Other: **excluding population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	186,228
2	Almada	1	720,910
3	Amadora	2	408,883
4	Barreiro	1	306,782
5	Elvas	1	320,478
6	Espinho	1	350,560
7	Fiães	1	303,020
8	Figueira da Foz	1	212,298
9	Gouveia	1	237,066
10	Lamego	1	213,447
11	Lisboa	2	177,126
12	Lixa	1	89,344
13	Lourosa	1	303,020
14	Mangualde	1	200,187
15	Marinha Grande	1	176,962
16	Matosinhos	2	282,034
17	Odivelas	2	275,981
18	Penafiel	1	60,769
19	Portalegre	1	285,630
20	Porto	2	600,677
21	Santo Tirso	1	111,992
22	Silves	1	186,489
23	Tomar	1	212,574
24	Vila Franca de Xira	1	84,849

Number of Cases in each Cluster		
Cluster	1	19,000
	2	5,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **none**
Other: **excluding population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	153,788
2	Almada	2	518,907
3	Amadora	3	139,890
4	Barreiro	1	346,547
5	Elvas	1	287,687
6	Espinho	1	388,815
7	Fiães	1	341,436
8	Figueira da Foz	1	177,749
9	Gouveia	1	198,567
10	Lamego	1	176,111
11	Lisboa	3	131,123
12	Lixa	1	64,145
13	Lourosa	1	341,436
14	Mangualde	1	161,704
15	Marinha Grande	1	143,828
16	Matosinhos	2	460,782
17	Odivelas	3	20,320
18	Penafiel	1	81,237
19	Portalegre	1	249,964
20	Porto	2	79,643
21	Santo Tirso	1	146,159
22	Silves	1	155,402
23	Tomar	1	174,029
24	Vila Franca de Xira	1	107,886

Number of Cases in each Cluster		
Cluster	1	18,000
	2	3,000
	3	3,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**

Number of Clusters: **4**

Standardization: **none**

Other: **excluding population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	94,333
2	Almada	4	386,565
3	Amadora	3	139,890
4	Barreiro	4	89,483
5	Elvas	1	204,550
6	Espinho	4	60,305
7	Fiães	4	63,993
8	Figueira da Foz	1	96,798
9	Gouveia	1	90,089
10	Lamego	1	81,715
11	Lisboa	3	131,123
12	Lixa	1	112,182
13	Lourosa	4	63,993
14	Mangualde	1	61,681
15	Marinha Grande	1	88,021
16	Matosinhos	2	204,977
17	Odivelas	3	20,320
18	Penafiel	1	188,414
19	Portalegre	1	152,801
20	Porto	2	204,977
21	Santo Tirso	4	251,884
22	Silves	1	99,115
23	Tomar	1	66,691
24	Vila Franca de Xira	1	201,762

Number of Cases in each Cluster		
Cluster		
1		13,000
2		2,000
3		3,000
4		6,00
Valid		24,000
Missing		,000

Cluster Analysis Method: **K-means**

Number of Clusters: **2**

Standardization: **z scores**

Other: **excluding population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	1	4,355
2	Almada	2	4,299
3	Amadora	2	5,638
4	Barreiro	2	4,451
5	Elvas	1	5,821
6	Espinho	2	4,407
7	Fiães	2	4,409
8	Figueira da Foz	1	4,108
9	Gouveia	1	3,598
10	Lamego	1	7,348
11	Lisboa	2	4,405
12	Lixa	1	4,267
13	Lourosa	2	4,456
14	Mangualde	1	2,045
15	Marinha Grande	1	5,085
16	Matosinhos	2	5,440
17	Odivelas	2	5,066
18	Penafiel	1	4,384
19	Portalegre	1	4,679
20	Porto	2	3,481
21	Santo Tirso	1	5,064
22	Silves	1	8,541
23	Tomar	1	2,753
24	Vila Franca de Xira	2	4,203

Number of Cases in each Cluster		
Cluster		
1		13,000
2		11,000
Valid		24,000
Missing		,000

EXTENDED SURROUNDINGS

Cluster Analysis Method: **K-means**
Number of Clusters: **3**
Standardization: **z scores**
Other: **excluding population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	2,866
2	Almada	3	4,299
3	Amadora	3	5,638
4	Barreiro	3	4,451
5	Elvas	1	5,253
6	Espinho	3	4,407
7	Fiães	3	4,409
8	Figueira da Foz	1	4,363
9	Gouveia	1	3,090
10	Lamego	1	6,541
11	Lisboa	3	4,405
12	Lixa	1	4,219
13	Lourosa	3	4,456
14	Mangualde	1	2,126
15	Marinha Grande	2	3,370
16	Matosinhos	3	5,440
17	Odivelas	3	5,066
18	Penafiel	1	4,415
19	Portalegre	1	4,069
20	Porto	3	3,481
21	Santo Tirso	1	5,527
22	Silves	2	6,065
23	Tomar	1	2,845
24	Vila Franca de Xira	3	4,203

Number of Cases in each Cluster		
Cluster	1	10,000
	2	3,000
	3	11,000
	Valid	24,000
	Missing	,000

Cluster Analysis Method: **K-means**
Number of Clusters: **4**
Standardization: **z scores**
Other: **excluding population density, variable simplification**

Cluster Membership			
Case Number	Unidade Geográfica (Cidade Estatística)	Cluster	Distance
1	Alcobaça	2	3,907
2	Almada	2	4,492
3	Amadora	3	2,544
4	Barreiro	2	3,841
5	Elvas	4	4,129
6	Espinho	2	2,604
7	Fiães	2	2,210
8	Figueira da Foz	4	4,347
9	Gouveia	4	2,496
10	Lamego	4	6,187
11	Lisboa	3	2,127
12	Lixa	2	4,372
13	Lourosa	2	2,293
14	Mangualde	4	2,588
15	Marinha Grande	2	4,180
16	Matosinhos	3	3,251
17	Odivelas	3	2,203
18	Penafiel	2	3,369
19	Portalegre	4	2,939
20	Porto	3	3,726
21	Santo Tirso	2	2,697
22	Silves	1	,000
23	Tomar	4	2,770
24	Vila Franca de Xira	2	3,936

Number of Cases in each Cluster		
Cluster	1	1,000
	2	11,000
	3	5,000
	4	7,000
	Valid	24,000
	Missing	,000

Appendix F. Spatial planning instruments and policy diagnosis matrixes

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Hoje, o Barreiro Antigo é, fundamentalmente, uma área residencial degradada, em processo de desertificação. [PROURB, Anexo 2, p. 4] ■ Com o declínio da indústria e a emergente era da terciarização deu-se entrada num ciclo de abandono populacional e económico, com a consequente degradação do espaço urbano e vivencial desta área da cidade. [PROURB, Anexo 2, p. 4] ■ Na actualidade, o risco mais relevante que impende sobre a zona do Barreiro Antigo, consiste na acentuada degradação dos espaços urbanos e do edificado e consequente perda de qualidade ambiental, no seu declínio económico e na perda de população, fenómenos que pela sua intensidade e extensão se sobrepõem ao risco de desvirtuamento das características urbanísticas e arquitectónicas do local, no qual se baseou aquela proposta Plano de Pormenor. Já não estamos perante o risco de perda de um património cultural, em consequência de práticas negligentes por parte dos seus proprietários, ou menos respeitadoras desses valores, mas dum risco objectivo de “perda” global (social, cultural, económica, ambiental) deste sector da cidade, em consequência do aumento da sua entropia que se sobrepõe ao risco da “perda cultural” considerado naquela proposta. [PROURB, Anexo 2, p. 4] ■ No Barreiro Antigo foram identificados 1745 habitantes nos últimos Censos 2001, tendo-se verificado um decréscimo populacional no último período inter-censitário (1991-2001), sendo a taxa de crescimento populacional de -30%. A Densidade Populacional do Barreiro Antigo é de 112,2 hab/ha. [PROURB, Anexo 3, p. 9] ■ (...) Neste universo, verifica-se que aproximadamente um terço da população se insere no grupo dos Idosos, contribuindo acentuadamente para o envelhecimento da população residente. (...) Os resultados apresentados espelham a realidade de alguns anos, onde a escolaridade mínima obrigatória era o 1º ciclo do ensino básico, correspondendo à faixa etária “Adultos”, predominante no Barreiro Antigo, implicando um baixo nível de escolaridade que se reflecte numa fraca qualificação profissional. (...) No entanto, importa salientar que o grupo de pensionistas e reformados é bastante elevado, com 52,10%. As ilações sobre estes valores indicam que a (des)industrialização que ocorreu no Barreiro e concelhos vizinhos conduziu à transferência dos trabalhadores do sector secundário para o terciário, sendo a percentagem de pensionistas e	■ As tais tendências estão associadas maiores necessidades ao nível de equipamentos de apoio social à população mais envelhecida. Mas ao nível do bairro, viu-se que era igualmente significativo o índice de dependência juvenil, pelo que também há a considerar as necessidades específicas deste grupo. Adicionalmente, no contexto de uma estratégia urbana de repovoamento do bairro, desejavelmente com população mais jovem, há que dar maior atenção às necessidades dos grupos mais jovens. A fixação destes equipamentos no local, e ou melhoria da sua qualidade, pode funcionar como factor de atractividade do bairro. Para além das necessidades da população ao nível dos equipamentos públicos, cuja provisão é essencial para a qualidade de vida e progresso social, deverá ser igualmente importante interiorizar este retrato social ao nível das políticas de ordenamento do território afim de combater e prevenir futuras situações de desigualdade e exclusão urbana. [PROURB, Anexo 1, p. 12] ■ Com o propósito de alcançar a salvaguarda e a revitalização do conjunto urbano que constitui o Barreiro Antigo, são definidos os seguintes objectivos gerais a alcançar com o Plano de Pormenor de Reabilitação Urbana do Barreiro Antigo: → Protecção do património cultural construído; → Reabilitação dos edifícios e do conjunto urbano em especial, assim como a requalificação dos espaços públicos existentes, assegurando a preservação da imagem e ambiente urbanos com o sentido de reforçar o “espírito do lugar”; (...) → Promover a ligação do antigo centro urbano da cidade com o seu centro actual, de construções e espaços urbanos mais recentes, assegurando a sua articulação de modo a fomentar o desenvolvimento sustentável da cidade; (...) → Recuperar o parque habitacional e actividades económicas existentes, estimular o preenchimento dos vazios urbanos e preservar os edifícios de características notáveis, assim como implementar diversos equipamentos de apoio; → Incorporar critérios de sustentabilidade e qualidade ambiental; → Incorporar preceitos de Mobilidade e acessibilidade ao Barreiro Antigo. [PROURB, Anexo 2, p. 7]

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
reformados um indicador do envelhecimento da população do Barreiro Antigo. [PROURB, Anexo 3, p. 10] ■ (...) Estes indicadores revelam que os habitantes desta zona vivem, na sua maioria, sozinhos e/ou acompanhados dos cônjuges, reflectindo a pouca dinâmica das famílias face ao envelhecimento da população residente. [PROURB, Anexo 3, p. 11] ■ De uma análise aos dados estatísticos dos censos de 2001, 1991 e 1981, verificou-se uma variação negativa da população de cerca de -29,8% nos primeiros dez anos e de -25,7% nos últimos dez, já que em 1981 existiam 1 226 alojamentos e 2 866 habitantes, em 1991 existiam cerca de 1 176 alojamentos para 2 012 habitantes e em 2001, 1109 alojamentos, e 1495 indivíduos. Significa que, em duas décadas, a variação da população foi de -47,8%. [PROURB, Anexo 1, p. 12] ■ Outros indicadores relevantes que apontam para o quadro de uma população envelhecida, com tendência para aumentar. Tais como o índice de dependência da população idosa do bairro que em 2001 era de 100^60, isto é, para cada 100 indivíduos em idade activa existiam 60 idosos. (...) Estes dados alertam-nos para as tendências demografias face a um envelhecimento progressivo da população, acompanhando, aliás, o perfil perspectivado para concelho e para freguesias mais a Norte do concelho, bem como de um elevado nível de dependência da população do bairro, com tendência para se agravar. [PROURB, Anexo 1, p. 12] ■ Acerca do bairro, tais dados são consentâneos com as considerações já efectuadas acerca de uma população em processo de envelhecimento, logo sem filhos, e por conseguinte, de dimensões mais reduzidas. [PROURB, Anexo 1, p. 13] ■ Apesar da zona do Barreiro Antigo estar a perder habitantes, os que nele permanecem são indivíduos que aí residem há longa data e que se enquadram numa faixa etária mais avançada, denunciando a fraca mobilidade da população mais idosa e a maior vulnerabilidade socioeconómica deste grupo. [PROURB, Anexo 1, p. 13]	

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
- Desde então, o Barreiro Antigo entrou num processo de declínio, à medida que o crescimento urbano da cidade passou a realizar-se em áreas cada vez mais distantes desta antiga centralidade urbana. Paralelamente, verificou-se um assinalável declínio e envelhecimento da população residente (redução de 30% entre os censos de 1991 e 2001). [PROURB, Anexo 1, p. 2] - Hoje, o Barreiro Antigo é fundamentalmente, uma área residencial degradada, em processo de desertificação. [PROURB, Anexo 1, p. 4]	no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ (...) as insuficiências nas áreas das infra-estruturas urbanísticas, onde se encontram numerosos edifícios em estado de abandono, bem como as deficiências dos edifícios existentes, no que se refere às condições de solidez, segurança e salubridade, atingem uma gravidade tal que só com a tomada de providências urgentes se permitirá obviar eficazmente aos inconvenientes e perigos inerentes às mencionadas situações. [Decreto n.º 35/96] ■ É preocupante o grande número de alojamentos, fracções comerciais e mesmo edifícios que se encontram integralmente desocupados, na medida em esta situação se traduz no agravamento do estado de conservação dos mesmos. [PROURB, Anexo 1, p. 6] ■ Na consciência da insustentabilidade desse modelo, nas três vertentes fundamentais - a ambiental, a social e também a económica - inserem-se as preocupações, ao nível das políticas urbanas mas recentes, com as áreas urbanas existentes – centros históricos, antigos centros, “vazios urbanos”, etc.. [PROURB, Anexo 1, p. 12] ■ Este tipo de situação é também acentuado pelo facto de existirem, segundo os censos de 2001, 322 alojamentos familiares vagos, que correspondem a 29% do total de alojamentos, denunciando o nível de evidente abandono do bairro. [PROURB, Anexo 1, p. 12] ■ Da análise no local constata-se que, hoje, grande parte dos espaços comerciais fronteiros aos arruamentos encontram-se desocupados ou devolutos. (...) Assim, hoje deparamo-nos com uma zona da cidade onde existem poucos espaços comerciais ou de serviços e onde os cafés ou oficinas foram substituídos por bares nocturnos ou encontram-se devolutos. Deste modo, torna-se difícil falar numa economia local, implementada nesta área da cidade ou com características próprias. [PROURB, Anexo 1, p. 15]	■ É concedido à Câmara Municipal do Barreiro, nos termos do n.º 1 do artigo 27.º do Decreto-Lei n.º 794/76, de 5 de Novembro, e legislação complementar, o direito de preferência nas transmissões, a título oneroso, entre particulares, dos terrenos ou edifícios situados na zona referida no artigo 1.º. [Decreto n.º 35/96, Artigo 3º, ponto 1] ■ Mais do que urbanizar novo território, importa requalificar o território urbano existente onde já foram efectuados importantes investimentos em infra-estruturas, equipamentos, etc. onde está sedimentado um património cultural que é fundamental para o reforço das identidades colectivas, mas onde permanecem os estratos sociais mais vulneráveis e mais desprotegidos face às consequências da degradação e declínio urbano. [PROURB, Anexo 1, pp. 12-13]

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
De tal forma que o mercado de aluguer existente no Barreiro Antigo é sobretudo suportado por famílias de fracos recursos económicos, cuja capacidade de arrendar um imóvel tem por vezes que se resignar ao mínimo apresentado nestas habitações. [PROURB, Anexo 1, p. 14]	no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ (...) as insuficiências nas áreas das infra-estruturas urbanísticas, onde se encontram numerosos edifícios em estado de abandono, bem como as deficiências dos edifícios existentes, no que se refere às condições de solidez, segurança e salubridade, atingem uma gravidade tal que só com a tomada de providências urgentes se permitirá obviar eficazmente aos inconvenientes e perigos inerentes às mencionadas situações. [Decreto n.º 35/96] ■ Consequentemente, perdeu diversidade funcional com o encerramento e deslocação de muitas das actividades económicas nele sedeadas, assim como a saída de equipamentos públicos centrais. O edificado, bastante vetusto, tem vindo a degradar-se a um ritmo cada vez mais acentuado, face à inércia dos seus proprietários, e as suas características morfo-tipológicas tornam mais difícil a sua reutilização. Segundo um inquérito realizado em 2005, pelo extinto G.R.U., a população é maioritariamente idosa e vive em deficientes condições de habitabilidade, com falhas graves ao nível das condições de segurança e salubridade das habitações. Verificou-se igualmente que a maior parte das situações de carência habitacional respeitavam a edifícios muito antigos, cuja tipologia se encontra bastante desajustada dos padrões de vivência modernos. [PROURB, Anexo1, p. 2] ■ O inquérito sócio-habitacional realizado em 1996 pela Câmara Municipal, acerca do estado de conservação dos imóveis, com base na avaliação dos residentes sobre o estado de habitabilidade do seu fogo, revelou que 38,9% dos residentes consideravam que o estado de conservação do seu fogo era "Razoável", seguindo-se 32,6% que consideravam que as suas habitações estavam em "Mau estado", 19,9% consideravam o seu fogo em "Bom estado" e apenas 5,2% o consideravam "Ruim". De acordo com a observação directa do estado de conservação exterior dos edifícios, realizada em 2005, pelo extinto G.R.U., e que face à evolução da reabilitação física do edificado se poderá afirmar que ainda hoje se mantém, verificou-se serem em maior número os edifícios em "Mau" estado de conservação, totalizando 36,18%. [PROURB, Anexo1, p. 6] ■ Constituíram factores locais, a política de arrendamento urbano que vigorou no país até muito recentemente, que não estimulou uma dinâmica de conservação do património imobiliário, nem a mobilidade e renovação do tecido social. Como factores locais concelhios, o	■ É concedido à Câmara Municipal do Barreiro, nos termos do n.º 1 do artigo 27.º do Decreto-Lei n.º 794/76, de 5 de Novembro, e legislação complementar, o direito de preferência nas transmissões, a título oneroso, entre particulares, dos terrenos ou edifícios situados na zona referida no artigo 1.º. [Decreto n.º 35/96, Artigo 3º, ponto 1] ■ De 1996 até 2000, a Câmara Municipal do Barreiro teve em funcionamento um Gabinete Técnico Local no âmbito do Programa de Recuperação de Áreas Urbanas Degradadas (PRAUD), que desenvolveu trabalho no âmbito da reabilitação urbana, nomeadamente na realização de obras no espaço público e de obras no edificado. As obras de espaço público foram alvo de candidatura ao mesmo programa, na sua vertente para obras, cuja comparticipação a fundo perdido foi 25% sobre o valor da obra. (...) o GTL executou projectos de espaço público para os largos principais do Barreiro Antigo e para os eixos que os ligam, desde a Praça Gago Coutinho e Sacadura Cabral até à Praça de Santa Cruz. Foi também alvo de proposta o conjunto da Praça Bento Jesus Caraça e do Largo Nossa Senhora do Rosário. Relativamente a estes projectos só alguns chegaram à fase de concretização das respectivas obras como a Praça G. Coutinho e S. Cabral ou a Praça de Stª Cruz e as artérias confinantes. Também o Largo Rompana, que hoje está novamente muito degradado, teve uma intervenção no âmbito do trabalho do GTL. Já em 2006, o município apresentou nova candidatura no âmbito do PRAUD, para a reabilitação do troço compreendido entre o Largo Rompana e a Praça Gago Coutinho e Sacadura Cabral, e para melhoramento da rede de iluminação pública. Presentemente, ainda não se tem conhecimento do resultado final desta candidatura. Das obras realizadas no edificado, com apoio estatal e municipal, destacam-se as obras de restauro na Igreja de Santa Cruz e Nossa Senhora do Rosário (apoio municipal) e as obras de recuperação executadas em edifícios particulares ao abrigo do programa RECRUA – Regime Especial de comparticipação na Recuperação de imóveis arrendados. (...) foram poucas as obras realizadas ao abrigo do RECRUA. A partir de 2001 cessaram as iniciativas no âmbito deste programa, ou congéneres, à medida que a verba

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
declínio desta área urbana, não se pode dissociar das alterações sofridas ao nível da base económica fundamental do concelho, designadamente, com a desindustrialização protagonizada pela erosão do complexo industrial da CUF, a partir dos anos 70. [PROURB, Anexo1, p. 7] ■ Por outro lado, evidencia um ajustamento às condições do parque habitacional do bairro, em geral, de fogos com dimensões reduzidas, logo, com menores condições de alojar famílias extensas. [PROURB, Anexo1, p. 13] ■ A maior parte dos residentes são arrendatários, logo também se pode concluir que o estado avançado de degradação dos edifícios reflecte o nível de negligência na manutenção dos edifícios por parte dos proprietários. [PROURB, Anexo1, p. 14] ■ Pelo panorama apresentado pode facilmente aferir se que, no que respeita à relação oferta/procura, parece não existir equilíbrio. Efectivamente, o volume de imóveis com vista à venda apresenta alguma relevância para a dimensão do território em análise e como já foi referido anteriormente é, em muitos casos sinal de declínio e abandono desta área urbana. Em concordância, a procura de habitação tende cada vez menos a ser realizada neste bairro, a não ser por uma franja da população com poucos recursos. [PROURB, Anexo 1, p. 14] ■ Na generalidade, o conjunto edificado encontra-se degradado, justificado em parte pela falta de intervenção dos proprietários, considerando a idade e o tipo de construção dos edifícios. [PROURB, Anexo 3, p. 11] ■ No tocante aos alojamentos familiares e respectiva dotação de infra-estruturas básicas, foram identificados 779 alojamentos familiares de residência habitual, dos quais 99,87% são abastecidos pela rede de distribuição eléctrica, 99,10% têm água canalizada e 99,74% têm esgotos, no entanto, apenas 79,46% são dotados de banho e duche. [PROURB, Anexo 3, p. 11]	cabimentada no orçamento municipal foi sendo reduzida, com a consequente redução da divulgação do programa. Em paralelo, os proprietários foram perdendo o interesse e motivação nestes apoios. Com a previsão de uma verba no orçamento municipal de 2007, ainda que reduzida face à necessidade de recuperação do edificado, mas relevante face aos pedidos apresentados, para a vertente da reabilitação urbana procura-se a reactivação destes programas que seria uma forma de incentivar o investimento na reabilitação do bairro, melhorando a competitividade deste tipo de investimento imobiliário, face aos de construção nova, noutras áreas do concelho. Em termos simbólicos, esta medida tem igualmente um impacto favorável, na medida em que estes programas, se bem que não sejam a panaceia para a reabilitação de todo o edificado do bairro, são tradicionalmente o “rosto” do investimento público na reabilitação urbana, e o seu reconhecimento pelo público pode contribuir para a retoma da confiança nos investimentos em reabilitação, pelo sector privado. [PROURB, Anexo 1, C.7. Dinâmicas de reabilitação urbana, pp. 14-15]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Por outro lado, nos últimos anos tem-se assistido a uma ocupação ilegal de casas, por parte de população de etnia cigana, o que tem originado algumas reacções negativas pelos residentes mais antigos. Estes novos moradores trazem consigo formas distintas de comportamento social, com reflexos na relação que estabelecem com e no espaço público, que colidem com os costumes e hábitos dos mais antigos, que os responsabilizam por dar origem a uma imagem pouco cuidada do espaço público, associando-os também ao crescimento da insegurança percebida no bairro. [PROURB, Anexo 1, p. 11] ■ No inquérito realizado pelo GTL em 1996 verificou-se que 65% da população era inactiva, predominando significativamente sobre a população activa – 35%. (...) Não obstante esta hierarquia, o segundo grupo mais numeroso é o dos residentes que não sabem ler nem escrever, representando 16,99% da população do bairro. (...) A caracterização da população no que respeita à escolaridade, que se pode realizar a partir destes dados, corresponde a um população com indivíduos, na sua maioria, com baixo nível de escolaridade, o que implica, por sua vez, uma fraca qualificação profissional. [PROURB, Anexo 1, pp. 13-14]	■ no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ No inquérito realizado em 1996 pelo GTL as principais carências sentidas pela população ao nível de equipamentos públicos situavam-se na área dos estabelecimentos de saúde e de apoio social. Uma década depois, verificamos que não foram construídos outros equipamentos para além dos que já tinham sido inventariados no referido inquérito, com excepção da casa de acolhimento da Sta. Casa da Misericórdia. O que indica que se deverão manter muitas das carências apontadas, senão foram entretanto agudizadas, face à tendência de envelhecimento da população, que torna mais críticas as necessidades sociais declaradas pela população. [PROURB, Anexo 1, p. 10] ■ (...) o Barreiro Antigo (...) transmite uma imagem de degradação, de pobreza e de falta de condições de vida, presentes e passadas, que não se deseja vivenciar ou retornar. [PROURB, Anexo 1, p. 10] ■ Contudo, o processo de degeneração (social, económica e ambiental) está a colocar em risco a preservação do bairro e do seu importante legado cultural e urbanístico. [PROURB, Anexo 2, p. 4]	■ no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ A segurança, o conforto, a legibilidade que são requisitos que definem a qualidade do espaço público estão, até certo ponto, comprometidos. Mas como os factores que influem negativamente na qualidade se prendem com questões de conservação e gestão e não tanto com as características intrínsecas do espaço público (morfológicas e funcionais), significa que a futura qualificação deste espaço estará mais facilitada. [PROURB, Anexo 1, p. 8] ■ No inquérito de 1996, já mencionado, a população foi incitada a identificar os problemas e deficiências que sentiam no bairro. Assinalaram, como problema relevante a falta de segurança, principalmente à noite, quando a vivência do bairro se transforma por completo. (...) Desta apropriação surge um tipo de vivência, dado por vezes à marginalidade, surgindo os sentimentos de insegurança e intolerância dos residentes relativamente aos frequentadores nocturnos do bairro. [PROURB, Anexo 1, pp. 10-11] ■ Outros dos problemas sentidos pela população, apontados como prioritários, são a degradação dos edifícios, as irregularidades do pavimento, o excesso de ruído, a falta de limpeza das ruas, a falta de policiamento, o tráfico de droga e a afluência de toxicodependentes à zona. O estado de degradação do edificado e do espaço público, bem como o elevado número de edifícios abandonados denunciam e fomentam uma imagem negativa do bairro. [PROURB, Anexo 1, p. 11]	■ no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ (...) o Barreiro Antigo (...) transmite uma imagem de degradação, de pobreza e de falta de condições de vida, presentes e passadas, que não se deseja vivenciar ou retornar. [PROURB, Anexo 1, p. 10] ▪ Na actualidade, o risco mais relevante que impende sobre a zona do Barreiro Antigo, consiste na acentuada degradação dos espaços urbanos e do edificado e consequente perda de qualidade ambiental, no seu declínio económico e na perda de população, fenómenos que pela sua intensidade e extensão se sobrepõem ao risco de desvirtuamento das características urbanísticas e arquitectónicas do local, no qual se baseou aquela proposta Plano de Pormenor. Já não estamos perante o risco de perda de um património cultural, em consequência de práticas negligentes por parte dos seus proprietários, ou menos respeitadoras desses valores, mas dum risco objectivo de “perda” global (social, cultural, económica, ambiental) deste sector da cidade, em consequência do aumento da sua entropia que se sobrepõe ao risco da “perda cultural” considerado naquela proposta. [PROURB, Anexo 2, p. 4]	▪ no statements found

MUNICIPALITY:	Barreiro
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 26/94 de 4 de Maio – Plano Director Municipal do Barreiro Decreto-Lei n.º 35/96 de 26 de Novembro – Área Crítica de Recuperação e Reconversão Urbanística (ACRRU): Barreiro Antigo Programa de Reabilitação Urbana do Barreiro Antigo 2008 (PROURB): • Anexo 1, Diagnóstico Urbano • Anexo 2, Termos de referência para o Plano de Pormenor de Reabilitação Urbana do Barreiro Antigo • Anexo 3, Estudo de Mobilidade para a “Zona Antiga do Barreiro”

Population decline and other related demographic issue

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ (...) o envelhecimento do seu parque edificado, o estado obsoleto de muitas das suas infra-estruturas, são situações que, aliadas à limitada capacidade de intervenção da Câmara Municipal de Elvas, têm concorrido para a consequente degradação dos edifícios e o agravamento das condições de solidez, segurança e salubridade. [Decreto n.º 39/98]	▪ no statements found

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

MUNICIPALITY:	Elvas
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 11/97 de 22 de Janeiro – Plano Director Municipal de Elvas Resolução do Conselho de Ministros n.º 122/2000 de 2 de Outubro – Plano Director Municipal de Elvas Resolução do Conselho de Ministros n.º 122/2000 de 8 de Março – Plano Director Municipal de Elvas Declaração n.º 89/2001 de 22 de Março – Plano Director Municipal de Elvas Aviso n.º 20694/2008 de 23 de Julho – Plano Director Municipal de Elvas Decreto-Lei n.º 39/98 de 29 de Outubro – ACRRU: Centro Histórico de Elvas

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Durante as décadas de 70 e 80, o modelo de desenvolvimento dominante apostou essencialmente na contenção no núcleo urbano de Espinho, o que resultou na projecção centrífuga e dispersiva, tendencialmente linearizada ao longo das principais vias de comunicação, do desenvolvimento urbano e dos investimentos imobiliários, que se traduziram no arrefecimento demográfico do núcleo central. Efectivamente, em Espinho observam-se significativas mudanças na organização territorial, nomeadamente ao nível do parque habitacional do concelho, que poderão potenciar situações nefastas ao seu desenvolvimento, caso não sejam criados instrumentos que reorientem estas tendências. [Revisão do PDM de Espinho – Documento Justificativo, p. 8] ■ De um lado, temos o território da cidade de Espinho e envolvente com uma programação totalmente desadequada e desarticulada das dinâmicas que encerra, em que a seu principal núcleo se encontra em declínio populacional, a necessitar de medidas de requalificação urbanística e ambiental, e a sua periferia em expansão física desorganizada. Do outro lado, temos um território fortemente polarizado pelo primeiro em que as intenções de densificação dos núcleos secundários e a colmatção dos espaços intersticiais encontra-se largamente par cumprir tendo-se, em oposição, registado um incremento da ocupação marginal das vias. A análise das plantas de zonamento revela um PDM relativamente generoso na distribuição do direito de edificabilidade, o que não contribuiu para o arrefecimento do mercado dos solos, mas para sobrecarregar o erário publico (municipal). [Revisão do PDM de Espinho – Documento Justificativo, p. 9] ■ A dinâmica recessiva da população e da habitação que exigem medidas de promoção da centralidade; [Revisão do PDM de Espinho – Documento Justificativo, p. 8] ■ Importa, no entanto, reter que a acomodação dos índices de crescimento populacional de Espinho, verificados nos últimos anos, e que se espera continuem no curto-médio prazo, não representam nenhuma ameaça significativa ao recurso solo. [Revisão do PDM de Espinho – Documento Justificativo, p. 10] ■ Ao longo das últimas décadas, a crescimento populacional do concelho de Espinho evidencia uma progressiva diminuição da taxa de crescimento anual (Tabela 4. 1). Enquanto na década de 70 a crescimento de Espinho se cifrava numa taxa média anual de 0.84%, esta	■ A estratégia assente na preocupação dominante de contenção do principal centro polarizador e de dispersão da periferia, deverá suceder-se uma estratégia inversa, de atracção ao centro e de contenção na envolvente, como se evidencia no diagnóstico em anexo. Deste modo, a ideia preconizada para o desenvolvimento de Espinho, implica uma estratégia concelhia que contraria a lógica subjacente ao PDM existente. [Revisão do PDM de Espinho – Documento Justificativo, p. 8] ■ A articulação da cidade com os núcleos de Anta e Silvando e a integração / ocupação de espaços intersticiais. [Revisão do PDM de Espinho – Documento Justificativo, p. 8] ■ Espinho está condenado a promover a mudança como condição de afirmação. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 91] ■ A configuração de uma abordagem com estas características, para além de remeter para o carácter marcante e identitário do território concelhio ao nível recreativo e ambiental, tem em atenção, quer a necessidade de ultrapassar a sazonalidade característica do concelho de Espinho como espaço de lazer e de recreio, quer os novos contornos do desenvolvimento, atrás referidos, associados a qualificação da vida quotidiana e a diversificação das exigências. É o caso das novas expectativas em torno dos tempos livres, do lazer, e da qualidade de vida (onde se incluem as questões de ordem terapêutica) que advêm das mutações demográficas e comportamentais em curso, com destaque para as novas exigências que decorrerão do progressivo envelhecimento da população e das maiores oportunidades de tempo livre para os agentes sociais activos, e da emergência de novas práticas de lazer, de sociabilidade e de cultura da população. Entre Douro e Vouga. Convirá realçar, por fim, que a estratégia de valorização das qualidades recreativas, sanitárias e ambientais do concelho não introduz necessidades espaciais específicas, integrando-se em diferentes estruturas e tipologias de usos do solo e promovendo a sua articulação selectiva. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 94]

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
baixou ligeiramente para 0.76% na década de 80, tendo no período que medeia entre 1991 e 2001 descido para -0.37%. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 70] ■ Analisando agora a evolução recente da população residente par freguesias, sobressaem duas situações divergentes mas complementares: o acentuado crescimento da freguesia de Anta, que se continua a revelar na década de 90, e a decréscimo do número de habitantes da freguesia de Espinho. A freguesia de Espinho, que revelou um crescimento positivo, desde a década de 60, e a única freguesia do concelho que apresenta um decréscimo acentuado a partir da década de 80, perdendo cerca de 2600 habitantes. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 70] ■ No que diz respeito as componentes estruturais do crescimento concelhio, a análise do crescimento natural face ao crescimento migratório permite constatar que o surto emigratório verificado ao longo da última década não só absorveu a totalidade do crescimento natural registado como foi responsável pela perda de população do concelho, como ilustra a Tabela 4.3. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 71] ■ As freguesias de Paramos e Guetim apresentam um padrão ligeiramente repulsivo, mas sem qualquer significado estatístico. As freguesias de Silvalde e Espinho, pelo contrário, apresentam um padrão repulsivo, correspondente ao declínio relativo do núcleo central da cidade. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 72] ■ De acordo com os elementos expostos, e tendo em conta as efeitos agregados a nível metropolitano, pode dizer-se que a AMP teve um crescimento muito moderado ate 2001, prevendo-se, nas décadas seguintes, uma trajectória de ligeira mas continuada perda demográfica. O concelho de Espinho devera seguir esta tendência metropolitana com valores globais que não se deverão afastar dos registados nas últimas duas décadas. Considerando, agora, as perspectivas de evolução das diferentes freguesias que constituem a concelho, e possível constatar que, na ausência de uma política de dinamização municipal: a freguesia de Espinho continuara a apresentar uma trajectória de ligeira perda demográfica, mais intensa ate 2010; a freguesia de Anta continuara a registar a actual tendência de crescimento ate 2010, iniciando na década seguinte uma trajectória de ligeira perda populacional; as freguesias de Guetim e	

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Paramos, apresentam-se estabilizadas no período em análise; a freguesia de Silvalde devera registar uma situação de ligeira perda demográfica, iniciada já na década de 90, com tendência para se atenuar entre 2010 e 2020. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 73] ■ Esta evolução apresenta-se indissociável das mutações em curso na esfera demográfica (envelhecimento da população) e familiar (ajustamentos a novos perfis familiares de pequena dimensão, decorrentes da dissolução de uniões, da longevidade da população e da autonomia dos jovens), e tem repercussões óbvias no plano das necessidades habitacionais. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 75] ■ A análise da evolução da pirâmide etária do concelho de Espinho, entre 1981 e 2001, permite observar uma tendência geral para o envelhecimento da população, cenário semelhante ao verificado a escala nacional. Constata-se a retracção da pirâmide pela base, correspondendo a diminuição dos estratos etários mais jovens (Figura 4.7). [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 75] ■ De acordo com os elementos expostos no Figura 4.8, constata-se, entre 1981 e 2001, um importante reforço do peso da população com mais de 25 anos, bem como a continuidade da tendência, já identificada de envelhecimento demográfico. A análise da estrutura etária da população por freguesia revela que a freguesia de Espinho apresentava a maior percentagem de população idosa (19,5%) e simultaneamente a menor percentagem de população jovem (11,8%). Esta situação traduz-se num valor elevado do índice de envelhecimento, tanto em 1991, como em 2001. Mesmo assim constata-se que o índice de envelhecimento de Espinho (0,948) embora aquém do registado para o concelho do Porto (1,454), o mais elevado da AMP, e superior à media metropolitana. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 76] ■ Quando se avalia a peso relativo do ensino média e superior na população residente verifica-se ainda a sua reduzida expressão no contexto metropolitano. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 78] ■ O número de residentes activos aumentou, de 1981 a 1991, de 19%, equivalente a 2700 activos. No entanto, apresentou um decréscimo ligeiro de 1,8% entre 1991 e 2001. Note-se que esta variação negativa, que inclui os activos desempregados, fica ainda assim muito aquém da registada em igual período no concelho do	

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Porto. (...) E importante observar que, embora a população de Espinho tenha diminuído, há mais gente em idade de trabalhar na população (veja-se a nova configuração da pirâmide etária) e a taxa de actividade registou um significativo aumento. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 80] ■ Em primeiro lugar, há que realçar o 'contexto demográfico' presente no concelho, marcado por dinâmicas globalmente estacionárias e por fenómenos de forte polarização etária da população, reflectidos no seu envelhecimento progressivo. (...) Por outro lado, aqueles aspectos apontam para a viabilidade de estratégias articuladas com novas exigências geracionais: o fenómeno de envelhecimento tende a ser acompanhado por mudanças importantes no comportamento de uma população idosa 'rejuvenescida' nas suas aspirações em termos de mobilidade e de entretenimento. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 89] ■ O debate sobre as determinantes emergentes do desenvolvimento atribui especial relevo a um conjunto de tendências, expectativas e desafios cujos elementos centrais podem ser assim resumidos: Mutações demográficas de ordem qualitativa e quantitativa: • Envelhecimento da população, novas exigências geracionais (população idosa rejuvenescida' nas suas aspirações em termos de mobilidade e de entretenimento, população jovem mais autónoma), maiores oportunidades de tempo livre para os activos; exigências mais complexas em termos de serviços e de equipamentos colectivos; alterações nas características quotidianas de mobilidade da população residente reflectindo novas práticas de lazer, de sociabilidade e de cultura e estimulando fenómenos de múltipla identidade territorial. ■ Importância da qualidade de vida e da gestão sustentável do território: • Crescente importância de preocupações associadas a qualidade de vida e a segurança, envolvendo desafios de varia ordem (ambiental, terapêutica, desportiva, de lazer); exigências de utilização equilibrada e de valorização dos recursos naturais, articulação sustentada dos vários usos do solo (económicos, sociais e naturais); [Revisão do PDM de Espinho – Caracterização Sócio-Económica, pp. 91-92] ■ A avaliação das condições recentes de organização social e económica do município mostra: um quadro demográfico geral caracterizado pela reduzida dimensão da base populacional e por tendências de amortecimento do crescimento demográfico que culminam numa situação de estabilização demográfica; a presença de dinâmicas muito expressivas de	

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evolução das famílias, e as possibilidades de expansão desta tendência nos próximos vinte anos; o importante envelhecimento da população, com retracção da população jovem, conduzindo a indicadores de envelhecimento muito próximos dos registados pelo município do Porto, que detém a primazia neste indicador no contexto metropolitano; a existência de perspectivas de evolução demográfica que apontam para a manutenção das tendências imperantes, com estabilização da população residente, em valores que rondarão os 32 000 habitantes, nos próximos vinte anos; (...) a valorização de iniciativas empresariais associadas as qualidades recreativas, sanitárias e ambientais do concelho, essencialmente vocacionadas para a prestação de serviços de apoio a actividades com forte identidade no concelho (lazer e desporto), mas também no âmbito dos serviços de saúde (nomeadamente ligados ao mar e aos seus produtos e tratamentos), dos serviços de qualificação ambiental, e dos serviços de apoio a terceira idade. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 95] ■ Como se observa na Tabela 5.2, entre as cinco freguesias que compõem a concelho, a variação populacional é bastante heterogénea, variando entre a forte crescimento na freguesia de Anta 11,4% e a diminuição considerável de 14% na freguesia de Espinho, sede do concelho. Note-se que a crescimento de Anta durante a década de 80 foi de 30%, tendo portanto atenuado, e que a regressão na freguesia de Espinho, complementarmente, tem-se vindo a acentuar, tendo duplicado entre a década de 80 e a década de 90. [Revisão do PDM de Espinho – Caracterização Sócio-Económica, pp. 98-99]	

Sinking population density

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▪ O concelho de Espinho ocupa uma área de 21.4km² e constituído por 5 freguesias. Em 2001, residiam em Espinho 33 701 habitantes, correspondendo a uma densidade populacional de quase 1600hab/km². Tendo em atenção as freguesias que compõem o concelho, a freguesia de Espinho é a que apresenta a densidade populacional mais elevada, de cerca de 6600hab/km², sendo a de Paramos a que detém a densidade mais baixa com pouco mais de 630hab/km². [Revisão do PDM de Espinho – Caracterização Sócio-Económica, p. 68] ▪ A freguesia de Espinho, sede de concelho, possui uma estrutura urbana consolidada com alta densidade populacional e um elevado índice de construção, que serve de suporte as funções e dinâmicas urbanas. [Revisão do PDM de Espinho – Rede Urbana, p. 224]	▪ no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ A análise das plantas de zonamento revela um PDM relativamente generoso na distribuição do direito de edificabilidade, o que não contribuiu para o arrefecimento do mercado dos solos, mas para sobrecarregar o erário público (municipal). [Revisão do PDM de Espinho – Documento Justificativo, p. 10] ▪ Simultaneamente, os perímetros industriais delimitados pelo plano encontram-se sobredimensionados, tendo sido alguns destes já desafectados para outros usos. [Revisão do PDM de Espinho – Documento Justificativo, p. 8]	▪ no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Em ambos os espaços a elaboração de diversos Planos de Pormenor, Planos Parciais e Estudos Urbanísticos ao longo dos anos não tem servido para canalizar a investimento imobiliário para áreas prioritárias. [Revisão do PDM de Espinho – Documento Justificativo, p. 9] ■ O elevado aumento percentual do número de famílias, muito superior ao da população, tem repercussões directas em termos da procura habitacional verificada em Espinho. O crescimento do número de famílias deveu-se, entre outras razões, à diminuição da dimensão média das famílias, que nos últimos 20 anos passou de 3,9 para 2,9, fenómeno alias de âmbito nacional. [Revisão do PDM de Espinho – Habitação, p. 98] ■ Este aumento percentual verificou-se sobretudo na década de 80, já que desde 1991 a crescimento tem sido muito moderado, a excepção de Anta e Paramos, e inferior à média metropolitana. [Revisão do PDM de Espinho – Habitação, pp. 99-100] ■ Repare-se que a comparação entre a Tabela 5.3 e a Tabela 5.2, relativamente ao número de fogos e ao número de famílias, permite concluir que, em 1991, existia um saldo favorável de cerca de 2100 fogos, em 2001 este valor subiu para 3000 fogos. [Revisão do PDM de Espinho – Habitação, p. 100] ■ (...) contrastando com a freguesia de Espinho que viu a seu numero de edifícios diminuir quase 20%, de acordo com as dados do Recenseamento. [Revisão do PDM de Espinho – Habitação, p. 101] ■ E possível, também, confirmar que o número de fogos tem crescido mais que o número de edifícios (excepto em Guetim e Paramos) a que corresponde a uma tendência para o aumento do número de fogos por edifício. Esta tendência foi mais acentuada nas freguesias de Paramos e Silvalde, a que indica a presença de alguns processos de mudança na tipologia do edificado. Na década de 90 estes processos verificaram-se com mais intensidade nas freguesias de Anta, Espinho e Guetim. [Revisão do PDM de Espinho – Habitação, p. 102] ■ 5.1.3 ESTRUTURA DO PARQUE HABITACIONAL Como se referiu anteriormente, quando comparamos a número de famílias com as residências habituais em alojamentos clássicos, encontramos ainda teoricamente um "excesso" de alojamentos da ordem dos 3000 fogos, pelo que seria de esperar que Espinho não apresentasse carências habitacionais em 2001.	■ Estas áreas caracterizam-se pela sua vocação urbana, densidade mais elevada, e elevado nível de funções urbanas e destinam-se preferencialmente à construção de edifícios plurifamiliares, não obstante, no entanto, à construção de habitação unifamiliar, comércio e serviços, ou, quando devidamente justificada, à construção ou utilização para outros usos compatíveis, de acordo com o estabelecido na Secção I deste Capítulo. [Proposta de Regulamento, Artigo 23.º, Áreas de Construção Tipo I, ponto 2] ■ Podem ainda ser licenciados edifícios de habitação plurifamiliar, com cêrcea máxima correspondente a 3 pisos (r/c+2) acima do solo, desde que daí não resulte prejuízo para a área envolvente, quer do ponto de vista paisagístico quer funcional, e sejam asseguradas as seguintes condições: a) melhoria de acessos locais e, se necessário, ligação à rede viária municipal existente; b) criação de todas as redes de infra-estruturas básicas e dos sistemas de tratamento de efluentes necessários ao funcionamento dos edifícios, garantindo adequadas condições de salubridade, procedendo à sua ligação às redes públicas existentes ou prevendo a futura ligação a eventuais redes públicas a criar; c) verificação da existência nas imediações de áreas de comércio ou de equipamento básico necessário. [Proposta de Regulamento, Artigo 24.º, Áreas de Construção Tipo II, ponto 5] ■ Pela sua importância e dimensão, o processo de legalização não é obviamente fácil, e esta dependente de políticas articuladas de escala local e nacional. Para além de estratégias directamente relacionadas com o âmbito habitacional, e necessário a sua interligação com medidas de carácter social e urbanístico que contribuam para criar alternativas credíveis, contendo a proliferação do fenómeno clandestino. [Revisão do PDM de Espinho – Habitação, p. 119] ■ A linha de actuação proposta para o mercado habitacional visa prioritariamente resolver as carências habitacionais do concelho de Espinho e, simultaneamente, contrariar a tendência de degradação habitacional e esvaziamento demográfico de determinados espaços (caso da freguesia de Espinho), de modo a não fomentar processos de exclusão funcional e territorial.

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No entanto, as fenómenos de sobreocupação e partilha de fogos eram uma realidade para cerca de 2200 famílias, pelo menos a data do recenseamento de 2001. O quadro anterior evidencia que a crescimento do parque habitacional foi acompanhado de um peso crescente de alojamentos vagos e de usa sazonal. O número de alojamentos vagos triplicou entre 1981 e 1991, tendo decrescido ligeiramente na ultima década, e, no mesmo período, a numero de alojamentos sazonais aumentou cerca de 8 vezes, representando a primeiro, em 2001, mais de 17% dos alojamentos disponíveis no concelho. De acordo com a Tipo de Ocupação do Parque Habitacional em 2001 (Tabela 5.10), observa-se que a concelho de Espinho apresenta valores percentuais para as alojamentos de usa sazonal, ocupante ausente e vagos, bastante superiores a media metropolitana, de onde resulta que a valor da percentagem da residência habitual do concelho (76,2%) e menor que a da media metropolitana (78,5%), já que a peso dos alojamentos vagos e semelhante. [Revisão do PDM de Espinho – Habitação, pp. 104-105] ■ Quanto aos alojamentos vagos também tem um valor muito significativo no concelho, particularmente nas freguesias de Espinho e de Anta, que correspondem as freguesias com maior dinâmica construtiva. [Revisão do PDM de Espinho – Habitação, p. 105] ■ As especificidades do tipo de ocupação do parque habitacional do concelho de Espinho, observadas, nomeadamente, através das diferenças encontradas entre a média metropolitana e a concelho, ao nível do número de alojamentos com ocupante ausente, vagos e de usa sazonal, justificam a grande cuidado a ter na definição de estratégias para o sector habitacional. [Revisão do PDM de Espinho – Habitação, p. 105] ■ A Tabela 5.19 mostra que as carências habitacionais estimadas no concelho de Espinho em 2001 são, pela aplicação do método Cardoso, de aproximadamente 1 058 fogos, valor que representa uma significativa redução de 23% relativamente ao ano 1991. Note-se que em igual período a redução das carências habitacionais na Área Metropolitana do Porto não foi alem dos 12%. [Revisão do PDM de Espinho – Habitação, p. 114] ■ Até a década de noventa, em resultado desta capacidade de atracção, assistiu-se a um crescimento urbano e populacional rápido, que teve como consequência o aumento das dificuldades no acesso a habitação, particularmente dos estratos da população de menores recursos económicos. [Revisão do PDM de Espinho – Habitação, p. 115]	Neste sentido, recomenda-se a aposta na diversidade de soluções alternativas para o parque habitacional, de forma a ampliar a margem de manobra da Câmara Municipal de Espinho, a que na prática se traduz em vantagens significativas ao nível da capacidade organizativa e negocial e da gestão flexível do próprio parque habitacional. De facto, por um lado, a diversidade de modelos no interior do parque habitacional, garante, à partida, a possibilidade da satisfação de um conjunto mais alargado de necessidades habitacionais e, sobretudo permite uma maior possibilidade de escolha, par parte das famílias, a que contribui para a qualidade final das soluções. (...) Embora a possibilidade de intervenção da Câmara Municipal de Espinho no sector habitacional seja limitada, pois os domínios normativo e financeiro são em grande parte da responsabilidade da administração central, e, no entanto, possível, nos domínios da produção de solo urbanizado, da promoção e da gestão habitacional a cargo do município, apontar algumas recomendações, divididas em 5 grupos (acções construtivas, habitação social e habitação clandestina, dinamização e mobilidade do parque habitacional, mercado do solo e mecanismos de intervenção municipal). [Revisão do PDM de Espinho – Habitação, pp.123-124]

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ Observa-se, no entanto, que paralelamente a um dinamismo relativo subsistem ainda carências, quer porque nalgumas freguesias a ritmo de construção do parque habitacional não tem acompanhado a aumento do numero de famílias (Paramos e Silvalde), quer porque existem problemas qualitativos associados aos equipamentos e infra-estruturas da habitação, particularmente a falta de abastecimento de água canalizada nos alojamentos, carência que se verifica sobretudo em Guetim e Paramos. (...) No concelho, particularmente nas freguesias de Espinho e Guetim, e pertinente equacionar toda a problemática associada a necessidade de obras de conservação/reabilitação do parque habitacional, prevendo-se que este tipo de obras tenha um crescimento significativo nos próximos anos (...) E de salientar, segundo os dados dos censos populacionais, a elevada percentagem de alojamentos com ocupante ausente, vagos e de uso sazonal, existentes no parque habitacional do concelho, com valores claramente superiores a media metropolitana, e que evidenciam alguns desajustamentos no mercado habitacional, particularmente nas dinâmicas de investimento associadas a relação entre a oferta e a procura. [Revisão do PDM de Espinho – Habitação, pp. 120-121] ▪ Este relatório fez também emergir algumas questões que ficam em aberto: Como respondera a mercado habitacional ao abrandamento demográfico verificado da década de noventa em Espinho, tendo em especial atenção a forte crescimento demográfico registado na década anterior? Que repercussões terão no sector habitacional a melhoria geral das acessibilidades ao (e no) Concelho? [Revisão do PDM de Espinho – Habitação, p. 121-122]	

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	- Promoção de programas de apoio social (inserção, formação, emprego, etc.). [Revisão do PDM de Espinho – Habitação, p. 120] - Subordinar a construção de habitações a uma disciplina urbanística que garanta o adequado nível de qualidade do espaço urbano. É fundamental a integração urbanística das habitações (particularmente os clandestinos e a habitação social) prevendo-se, simultaneamente, um conjunto de serviços e equipamentos que sirvam as actividades das pessoas, as relações sociais e económicas locais; [Revisão do PDM de Espinho – Habitação, p. 123]

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

MUNICIPALITY:	Espinho
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 36/94 de 20 de Maio – Plano Director Municipal de Espinho Revisão do Director Municipal (PDM) de Espinho (Maio de 2005): Proposta Final de Regulamento do PDM de Espinho Documento justificativo para a revisão do PDM Caracterização Sócio-Económica Habitação Equipamentos Espaços Verdes Urbanos Rede Urbana

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

MUNICIPALITY:	Lamego
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 46/94 de 23 de Junho – Plano Director Municipal de Lamego Resolução do Conselho de Ministros n.º 71/2002 de 9 de Abril – Plano Director Municipal de Lamego Decreto Regulamentar n.º 23/79 de 21 de Maio – Área Crítica de Recuperação e Reconversão Urbanística (ACRRU): Zona do Castelo e suas Imediações e Zona da Sé

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
As áreas históricas são constituídas pelas seguintes categorias, em função do respectivo uso predominante, conforme delimitação na planta de classificação do espaço urbano: a) Áreas históricas habitacionais, centrais ou periféricas, onde se mantém o uso habitacional predominante e que se pretende revitalizar nos aspectos demográfico, social e funcional; [RCM n.º 94/94, Artigo 30.º, Categorias, alínea a]	(...) melhorar e adequar o nível de serviço dos equipamentos e infra-estruturas às necessidades da população residente e de novos utentes, cuja captação e fixação se considera fundamental. [RCM n.º 94/94, Preambulo, II.A-Áreas históricas]

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
No conjunto da cidade as áreas de equipamentos têm uma dimensão e presença muito significativa. [RCM n.º 94/94, Preâmbulo, II.L-Áreas de equipamentos e serviços públicos, ponto 4]	no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	- Revalorização da função habitacional no conjunto da cidade e, em particular, na sua área central; [RCM n.º 94/94, Preambulo, II-Objectivos urbanísticos e regras do PDM, 1º.] (...) melhorar e adequar o nível de serviço dos equipamentos e infra-estruturas às necessidades da população residente e de novos utentes, cuja captação e fixação se considera fundamental. [RCM n.º 94/94, Preambulo, II.A-Áreas históricas] - O objectivo do PDM é conter a terciarização, alterando profundamente as regras até agora estabelecidas, e reduzir drasticamente os ritmos de «penetração» do terciário nas áreas habitacionais centrais da cidade. Assim, estabelece-se como relação de usos, referida à superfície total de pavimento, o limite de 30 % máximo para uso terciário, incluindo comércio. Isto significa que nas áreas onde esta relação já foi ultrapassada não poderá ser aumentada a área de terciário, devendo antes ser previstos, nos planos de pormenor, mecanismos que incentivem o aumento de áreas para uso habitacional. 2-Não se pretendendo favorecer a terciarização nestas (áreas o Regulamento não permite, na ausência de plano de pormenor, o licenciamento de novos edifícios para escritórios. Admite-se apenas área comercial no piso térreo dos edifícios de habitação, com impedimento a ocupação dos logradouros. Remete-se, portanto, para planos de pormenor a avaliação do nível de terciarização do tecido consolidado e a aplicação da repartição da superfície de pavimento de habitação e terciário e da regulamentação da edificabilidade lote a lote, dentro dos limites percentuais 70-30, definidos no Regulamento. 3-Nas áreas consolidadas de edifícios de utilização colectiva habitacional só será permitida a substituição de habitação por serviços na totalidade de edifícios existentes quando se trate de edifícios que constem do inventário municipal do património e sejam de construção anterior a 1940. Nestes casos, poderá a Câmara Municipal autorizar a ocupação total com terciário, desde que o edifício seja restaurado de acordo com normas municipais de intervenção nesses edifícios. Poderá ainda admitir-se a mudança de uso de edifícios oficialmente classificados ou em vias de classificação oficial, mediante parecer prévio favorável do IPPAR. O objectivo desta regra é incentivar a preservação e reabilitação de edifícios

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	classificados e de interesse na área central consolidada, através de usos que compensem os custos da reabilitação com a centralidade dos edifícios. 5-Em conclusão: A gestão urbanística das áreas consolidadas de edifícios de utilização colectiva habitacional deve dar prioridade à contenção da terciarização por substituição de edifícios de habitação existentes ou por licenciamento de novas construções, mas deverá incentivar a reabilitação de edifícios anteriores a 1940, identificados no inventário municipal do património, podendo permitir, para tal, a ocupação desses edifícios com terciário; Sempre que seja admitida a possibilidade de aumentar a superfície de terciário dentro do limite estabelecido de 30 % da superfície total de pavimento, a Câmara Municipal deverá promover a realização de plano de pormenor para áreas de intervenção que não poderão ser inferiores a 1 ha. [RCM n.º 94/94, Preambulo, II.D-Áreas consolidadas de edifícios de utilização colectiva habitacional Plano] ■ 1-Às áreas consolidadas de utilização colectiva mista, já predominantemente terciarizadas, pretende-se aplicar regras que mantenham a função habitacional em áreas de forte tendência de terciarização. (...) 3- Sempre que a Câmara Municipal entenda necessário, poderá definir a superfície e distribuição dos usos terciário e de habitação através de plano de pormenor. [RCM n.º 94/94, Preambulo, II.E-Áreas consolidadas de edifícios de utilização colectiva mista] ■ Nas áreas consolidadas de utilização colectiva terciária admite-se a predominância de serviços, comércio e equipamentos privados impondo-se a manutenção de uma percentagem mínima de 20 % para habitação e hotelaria, a qual deverá ser distribuída e garantida através de regulamento municipal ou de plano de pormenor. [RCM n.º 94/94, Preambulo, II.F-Áreas consolidadas de edifícios de utilização colectiva terciária, ponto 1] ■ Incentivar operações de reconversão através de uma estrutura de promoção imobiliária diversificada. [RCM n.º 94/94, Preambulo, II.G-Áreas consolidadas industriais, ponto 3, alínea c] ■ Criam-se incentivos à renovação do tecido e das edificações existentes através de planos de pormenor ou operações de loteamento, desde que a área de intervenção seja igual ou superior a 1 ha. A possibilidade de os privados poderão promover, individualmente ou associados, projectos de reconversão tem

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	por objectivo facilitar a implementação deste processo, devendo a Câmara Municipal definir critérios urbanísticos para as áreas de intervenção (traçados de novas infra-estruturas viárias, alinhamentos de construções, edifícios a preservar, áreas de estacionamento, etc.). [RCM n.º 94/94, Preambulo, II.G-Áreas consolidadas industriais, ponto 4] ■ As áreas de estruturação serão afectadas a usos predominantemente habitacionais, terciários ou mistos, devendo aplicar-se a relação de usos cujos limites máximos e mínimos são estabelecidos no Regulamento (não se prevêem usos exclusivos). [RCM n.º 94/94, Preambulo, II.H-Áreas de estruturação urbanística, ponto 3] ■ Estas áreas podem destinar-se a usos predominantemente habitacionais ou a usos mistos de habitação/terciário, aplicando-se os índices urbanísticos definidos para as respectivas categorias dos espaços urbanos consolidados. [RCM n.º 94/94, Preambulo, II.I-Áreas de reconversão urbanística, ponto 1] ■ As áreas históricas são constituídas pelas seguintes categorias, em função do respectivo uso predominante, conforme delimitação na planta de classificação do espaço urbano: a) Áreas históricas habitacionais, centrais ou periféricas, onde se mantém o uso habitacional predominante e que se pretende revitalizar nos aspectos demográfico, social e funcional; [RCM n.º 94/94, Artigo 30.º, Categorias] ■ b) A distribuição de usos, sujeitos aos seguintes valores de superfície de pavimento máximo e mínimo, não podendo a superfície comercial de pavimento ser inferior a 10 % da superfície total de pavimento: Uso habitacional-mínimo 70 %; ! Uso terciário e indústria compatível-máximo 30 %; [RCM n.º 94/94, Artigo 36.º, Planos] ■ c) A distribuição de usos, sujeitos aos seguintes valores de superfície de pavimento máximo e mínimo, não podendo a superfície comercial de pavimento ser inferior a 10 % da superfície total de pavimento: Uso habitacional-mínimo 70 %; Uso terciário e indústria compatível-máximo 30 %; [RCM n.º 94/94, Artigo 37.º, Parcelas não infra-estruturadas] ■ 1-As áreas consolidadas são constituídas, em função da tipologia dominante dos edifícios, nas seguintes categorias, conforme delimitação na planta de classificação do espaço urbano: a) áreas consolidadas de

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	moradias; a) Áreas consolidadas de edifícios de utilização colectiva habitacional, onde se mantém o uso habitacional predominante, bem como as morfologias urbanas e as tipologias das edificações dominantes; [RCM n.º 94/94, Artigo 45.º Categorias] ■ 1-Nas áreas consolidadas de edifícios de utilização colectiva habitacional as obras de ampliação e de construção só podem ser destinadas a uso habitacional, com excepção do piso térreo que pode ter ocupação de terciário, indústria compatível e equipamentos colectivos. 2-Em edifícios existentes é permitida a alteração do uso terciário para o uso habitacional, salvo nos casos em que a Câmara Municipal considerar não oferecerem adequadas condições de salubridade e segurança ou que daí resultem incompatibilidades entre usos. 3-Em edifícios existentes não é permitida a alteração do uso habitacional para o uso terciário, salvo se se verificarem as seguintes condições cumulativas: a) Tratar-se de edifícios identificados como sendo de interesse no inventário municipal do património, constante do anexo n.º 1 a este Regulamento, de construção anterior a 1940; b) A possibilidade de adaptação do edifício ao novo uso e definido o nível de intervenção mais adequado, pela estrutura consultiva criada nos termos do n.º 2 do artigo 4.º, de forma a não comprometer as características arquitectónicas que determinaram a sua inventariação; c) Os referidos edifícios serem restaurados ou reabilitados de acordo com critérios definidos nas normas de intervenção nos edifícios constantes da carta municipal do património ou, na falta destas, de acordo com parecer de estrutura consultiva criada nos termos do disposto no n.º 2 do artigo 4.º 4-A alteração de uso prevista no número anterior, quando se trate de edifícios sujeitos à jurisdição do IPPAR, fica dependente de parecer prévio favorável deste Instituto. [RCM n.º 94/94, SUBSECÇÃO II - Das áreas consolidadas de edifícios de utilização colectiva habitacional, Artigo 49.º, Usos] ■ Nas áreas consolidadas de edifícios de utilização colectiva habitacional as alterações da edificabilidade e dos usos não previstas nos artigos anteriores ficam dependentes de prévia aprovação de planos de pormenor, que se têm de conformar com as seguintes condições: b) Os usos ficam sujeitos aos seguintes valores de superfície de pavimento máximo e mínimo, não podendo a superfície comercial de pavimento ser inferior a 10 %

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	da superfície total de pavimento: Uso habitacional-mínimo 70 %; Uso terciário-máximo 30 %; [RCM n.º 94/94, Artigo 55.º, Planos, ponto 1] - As áreas de estruturação urbanística são constituídas pelas seguintes categorias, em função do respectivo uso predominante, conforme delimitação na planta de classificação do espaço urbano: a) Áreas de estruturação urbanística habitacional, destinadas predominantemente ao uso habitacional e aos equipamentos e serviços complementares; [RCM n.º 94/94, Artigo 68.º, Categorias] - As áreas de reconversão urbanística são constituídas, em função do respectivo uso predominante futuro, pelas seguintes categorias, conforme delimitação na planta de classificação do espaço urbano: a) Áreas de reconversão urbanística habitacional, destinadas predominantemente ao uso habitacional e aos equipamentos e serviços complementares; b) Áreas de reconversão urbanística mista, destinadas predominantemente a usos habitacionais e terciários. [RCM n.º 94/94, Artigo 72.º, Categorias] 1-Nas áreas de reconversão urbanística habitacional, delimitadas na planta de classificação do espaço urbano, os planos de urbanização e de pormenor, a que se refere o artigo 73.º, têm de se conformar com as seguintes condições: a) Os usos ficam sujeitos aos seguintes valores de superfície de pavimento mínimo, e máximo, não podendo a superfície comercial de pavimento ser inferior a 10 % da superfície total de pavimento: Uso habitacional-mínimo 70 %; Uso terciário e indústria compatível-máximo 30 %; [RCM n.º 94/94, SUBSECÇÃO I - Das áreas de reconversão urbanística habitacional, Artigo 74.º, Planos, ponto 1]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	As áreas históricas são constituídas pelas seguintes categorias, em função do respectivo uso predominante, conforme delimitação na planta de classificação do espaço urbano: a) Áreas históricas habitacionais, centrais ou periféricas, onde se mantém o uso habitacional predominante e que se pretende revitalizar nos aspectos demográfico, social e funcional; c) Quintas integradas nas (áreas históricas, onde se mantém o uso habitacional predominante, as quais constituem áreas de enquadramento e valorização dos núcleos históricos edificados. [RCM n.º 94/94, Artigo 30.º, Categorias]

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Destacam-se também as situações mais críticas que afectam a segurança em algumas zonas da cidade. [RCM n.º 94/94, Preambulo, I-Estrutura e conteúdo dos documentos do PDM, ponto 4]	no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

MUNICIPALITY:	Lisboa
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 94/94 de 29 de Setembro – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 104/2003 de 8 de Agosto – Plano Director Municipal de Lisboa Declaração n.º 257/2003 de 19 de Agosto – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 20/2004 de 3 de Março – Plano Director Municipal de Lisboa Declaração n.º 51/2004 de 16 de Março – Plano Director Municipal de Lisboa Declaração n.º 86/2006 de 29 de Maio – Plano Director Municipal de Lisboa Declaração n.º 87/2006 de 29 de Maio – Plano Director Municipal de Lisboa Aviso n.º 7889/2008 de 13 de Março – Plano Director Municipal de Lisboa Aviso n.º 7890/2008 de 13 de Março – Plano Director Municipal de Lisboa Aviso n.º 7891/2008 de 13 de Março – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 121/2008 de 6 de Agosto – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 145-A/2008 de 1 de Outubro – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 153/2008 de 14 de Outubro – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 192/2008 de 11 de Dezembro de – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 51/2009 de 17 de Julho – Plano Director Municipal de Lisboa Resolução do Conselho de Ministros n.º 52/2009 de 17 de Julho – Plano Director Municipal de Lisboa

LISBON

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Os órgãos e serviços municipais prosseguem, em particular, os seguintes interesses públicos estratégicos: h) Inversão do declínio da população residente; [Artigo 5º, Interesses públicos estratégicos, ponto 2] ■ Por múltiplas razões, algumas sérias tendências têm agredido a nossa cidade, nas últimas décadas, (...): perdendo população de uma forma continuada, deixando crescer dentro dela espaços vazios ou mesmo de solidão, tendo-se deixado desestruturar alguns sectores e processos de gestão, [CEU – Lisboa XXI – 2, p. 7] ■ (...) uma das mais sérias questões que se colocam a Lisboa prende-se com a constante sangria das suas gentes, que, ao irem residir noutros locais, vão diminuindo a densidade, a compactidade humana e a capacidade criativa da cidade, ao mesmo tempo contribuindo para o desenvolvimento de uma metrópole mais dispersa e seguramente menos sustentável, considerou-se como vital a compreensão dos fenómenos contemporâneos inerentes à residencialidade, à habitação, aos espaços de vida vistos em termos do habitar por determinadas escalas e sentidos, e evidentemente às cadeias de valor a estas áreas ligadas – nomeadamente em termos do sector imobiliário, dos seus mercados e formas de actuação e regulação; em segundo lugar, e entendendo que uma das áreas mais vitais de uma cidade é a sua capacidade de geração de mais-valias e de riqueza, permitindo também por essas vias a inovação e a criatividade e estabelecendo dinâmicas conducentes a um desenvolvimento sócio-económico consistente e – diríamos mesmo – sustentável, considerou-se também prioritário o conhecimento das realidades económicas e das chamadas bases empregadoras e competitivas da cidade. [CEU – Lisboa XXI – 2, p. 10] ■ A competitividade territorial, analisada numa óptica de performance, utilizando nomeadamente um dos indicadores que melhor traduz o nível de vida das regiões (o PIB per capita), pode ser decomposta, num primeiro momento, em duas componentes (ver Figura 1.3) que, em conjunto, determinam o seu nível: PIB por pessoa empregada, que é aproximadamente equivalente à produtividade laboral; número total de pessoas empregadas relativamente à população residente, isto é, a taxa de utilização dos recursos humanos. Figura 1.4 e 1.5 [CEU – Lisboa XXI – 2, pp. 30-31] ■ Em termos demográficos, depois de décadas de	■ 1. Nas áreas históricas habitacionais são admitidas obras de reconstrução, conservação e restauro, as quais têm que incluir, nos termos a definir em auto de vistoria municipal, a recuperação dos elementos arquitectónicos e construtivos considerados de valor cultural ou que constituam contributo para a caracterização do conjunto em que se inserem. 2. As operações de loteamento, assim como as obras de demolição, de construção, de ampliação e de alteração, incluindo as de remodelação e de reabilitação, são admitidas nos termos previstos nos artigos seguintes. [Sub-secção I - Áreas Históricas Habitacionais, Artigo 35º, Operações urbanísticas] ■ A necessária renovação da competitividade urbana da cidade de Lisboa: conclusões e recomendações. [CEU – Lisboa XXI – 2, pp. 149-164]

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
crescimento populacional, a cidade de Lisboa tem vindo a perder peso relativo ao nível populacional no conjunto da área metropolitana, atingindo sobretudo os estratos jovens e activos da população, o que tem como consequência: Envelhecimento da população da cidade de Lisboa; Degradação e desertificação das áreas centrais da cidade; Alastramento dos dormitórios periféricos e crescimento de áreas urbanas desqualificadas; Forte acréscimo dos movimentos pendulares, diários, entre as periferias e as áreas centrais da cidade. Ao nível da estrutura etária predominam na cidade de Lisboa os grupos de população em idade activa. No entanto, Lisboa acompanhou a tendência para o envelhecimento demográfico registada a nível nacional numa dupla perspectiva: Envelhecimento pelo topo, derivado do aumento da população idosa; Envelhecimento pela base, derivado da diminuição da população jovem. [CEU – Lisboa XXI – 2, pp. 46, 47, ...] ■ A evolução do ambiente económico, social e urbano da cidade de Lisboa: a configuração das zonas de aglomeração da população e das actividades económicas [CEU – Lisboa XXI – 2, pp. 85-86] ■ As trajectórias de evolução económica, social e urbanística das freguesias e das zonas e aglomeração [CEU – Lisboa XXI – 2, pp. 111-147] ■ Indicador Sintético de Competitividade Urbana, Quadros 3.23 e 3.24 [CEU – Lisboa XXI – 2, pp. 120-121] ■ Identificação da área em estudo Conclusão [CEU – Lisboa XXI – 3, pp. 33-34] ■ O mercado de habitação em Lisboa no planeamento [CEU – Lisboa XXI – 3, pp. 34-36] ■ Estrutura etária do concelho de Lisboa [CEU – Lisboa XXI – 3, pp. 43-46] ■ Nível de intrusão; Famílias; Fluxos migratórios; Movimentos pendulares [CEU – Lisboa XXI – 3, pp. 49-54] ■ Acesso ao crédito à habitação (alterado pela crise que teve início em 2008) - enquadramento nacional [CEU – Lisboa XXI – 3, pp. 58-59] ■ As estatísticas sobre a população mostram claramente que o número médio de filhos por família tem diminuído. Simultaneamente, o aumento do período de escolaridade e o facto de as mulheres terem uma vida cada vez mais activa profissionalmente levam a que os agregados familiares actuais sejam muito diferentes dos de há alguns anos atrás. Todo o ciclo de vida se encontra deslocado para a frente: sai-se mais tarde de casa dos pais, casa-se mais	

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
tarde, tem-se menos filhos e mais tarde, há maior número de separações e, no geral, maior instabilidade familiar. Observam-se novas formas de coabitação e de família, mais pessoas a viverem sós (frequentemente com filhos), famílias compostas por filhos de relações anteriores. Enquanto o ambiente demográfico mudou completamente, a oferta de habitação manteve-se relativamente inalterada. [CEU – Lisboa XXI – 3, p. 156] ■ Ao nível demográfico, depois de décadas de crescimento populacional, tem vindo a perder peso relativo ao nível populacional no conjunto da área metropolitana de Lisboa, sobretudo dos estratos jovens e activos da população, o que tem como consequência: o envelhecimento da população; degradação e desertificação das áreas centrais da cidade; grande incremento dos movimentos pendulares diários entre as periferias e as áreas centrais da cidade. [CEU – Lisboa XXI – 3, p. 157]	

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Por múltiplas razões, algumas sérias tendências têm agredido a nossa cidade, nas últimas décadas, (...): perdendo população de uma forma continuada, deixando crescer dentro dela espaços vazios ou mesmo de solidão, tendo-se deixado desestruturar nalguns sectores e processos de gestão (...). [CEU – Lisboa XXI – 2, p. 7] ■ Como conclusões do desk-research podem desenhar-se as seguintes reflexões sobre a oferta de habitação (...) necessidade de um vital impulso nas dinâmicas de reabilitação urbana (atendendo ao número de edifícios devolutos na cidade); [CEU – Lisboa XXI – 3, p. 153] ■ Ao longo deste estudo foi possível constatar – por artigos em revistas da especialidade e por entrevistas a especialistas do sector – que a quantidade de fogos para comercialização parece ser superior às necessidades do mercado. Também as estatísticas sobre propriedade de habitação, no confronto com as de outros países europeus, denotam esta situação. (...) Finalmente, é possível detectar uma alteração qualitativa na procura de habitação: depois de um movimento nos últimos anos, que conduziu ao abandono da cidade, existe hoje um desejo de habitar em Lisboa – no(s) seu(s) centro(s) – que só não é completamente correspondido, até ao momento, por ausência de oferta economicamente competitiva. [CEU – Lisboa XXI – 3, p. 155] ■ De acordo com os dados constantes nos Censos 2001, dos 288 431 alojamentos clássicos existentes em Lisboa, só 86% se encontravam ocupados, havendo cerca de 40 000 que se encontram devolutos, dos quais 67% (26 634) não tinham qualquer destino previsto. [CEU – Lisboa XXI – 3, p. 161]	■ 1.As áreas de estruturação urbanística são espaços urbanos intersticiais desocupados ou nos quais se verifica uma degradação do edificado ou onde a ocupação actual é desadequada face à envolvente. 2.As Áreas de Estruturação Urbanística subdividem-se, atento o uso dominante, em: a) Áreas de Estruturação Urbanística de Habitação Colectiva (SCEU1); b) Áreas de Estruturação Urbanística Terciárias (SCEU2) e c) Áreas de Estruturação Urbanística Mistas (SCEU3). 3. As áreas de estruturação urbanística devem ser sujeitas à introdução de novos usos ou à reconversão dos usos e das características morfológicas das edificações existentes, associada à programação das necessárias infra-estruturas e equipamentos de utilização colectiva. [Secção III, Áreas de Estruturação Urbanística, Artigo 56º, Âmbito e objectivo; ver também Artigos 58º a 64º] ■ Na perspectiva da alteração da política de reabilitação em Portugal, no sentido da integração dos financiamentos e na sua maior abrangência e flexibilidade, será essencial dar um passo significativo na melhoria da imagem da cidade, na criação de uma nova dinâmica social dos bairros mais desertificados da capital, o que obrigatoriamente passa pela articulação de uma série de medidas de políticas sectoriais, desde a urbanística à política fiscal, extravasando assim a política de habitação. [CEU – Lisboa XXI – 3, p. 162; ver toda a p. 76 para mais detalhes] ■ [ver CEU – Lisboa XXI – 3, pp. 165-166] ■ Campanha de reabilitação Face às circunstâncias, assume-se como fundamental uma campanha de reabilitação de grande escala em Lisboa visando os seguintes aspectos articuladamente: 1 recuperação do património cultural; 2 aumento da população nas áreas centrais histórica e consolidada; 3 aumento do mercado de arrendamento; 4 combate à especulação imobiliária que inclua fogos devolutos ou degradados; 5 maior segurança em bairros antigos despovoados; 6 melhor coesão social. ■ Ora, a observação dos dados recolhidos mostra que há áreas da cidade onde as casas devolutas se aproximam dos 30 e mesmo 40%, exactamente em zonas contíguas e de grande valor patrimonial e locacional – junto ao estuário do Tejo – como

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	se vê no mapa. Este esforço deve ser acompanhado por uma generosa linha de crédito que deve ser aplicada na compra desses fogos ou prédios ou no estabelecimento de parcerias com os proprietários ou promotores privados agregados para o efeito. Será possível considerar o alargamento das parcerias com a participação de proprietários de outros prédios não devolutos da zona interessados em actualizar e beneficiar os seus imóveis. Simultaneamente devem ser tomadas outras medidas de importante alcance, nomeadamente nas seguintes dimensões: _ intimação de todos os proprietários da zona para realizarem obras de conservação e actualização nos seus prédios, fiscalizando a situação de forma rigorosa e com pesadas coimas por incumprimento. _ montagem de uma operação de esclarecimento que permita mostrar aos interessados a situação decadente do imobiliário da zona e suas potencialidades através, e só através, de uma operação conjunta que evite que alguns façam um esforço inglório por falta de economia de escala dos benefícios esperados. (...) [CEU – Lisboa XXI – 3, pp. 167-168]

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
A presente conjuntura económica contribui também para a redução das dinâmicas, com as famílias a retraírem-se e a evitarem investimentos, à espera da evolução da situação. [CEU – Lisboa XXI – 3, p. 155]	no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Os vários especialistas entrevistados são de opinião que os instrumentos legais do mercado imobiliário se encontram desadaptados, não respondendo de forma eficaz às necessidades actuais (arrendamento, novas formas de propriedade, etc...). Como vimos anteriormente, também as opções comerciais e financeiras existentes empurram os potenciais compradores para fora de Lisboa e para os produtos habituais: ao contrário de outros mercados, e perante o estado da arte actual, no imobiliário é o cliente que tem de se adaptar à oferta. A conjugação de todos estes factores, com relações dinâmicas entre si, potencia a rigidez actual do mercado imobiliário, que necessita de medidas urgentes que promovam a sua agilidade e a promoção dinâmica de centralidades urbanas e de qualidade de vida, em ambiente contemporâneo e valorizador da cidade antiga e moderna. [CEU – Lisboa XXI – 3, p. 156] ■ Impõe-se assim uma reestruturação global do mercado imobiliário em Lisboa como condição necessária para que a cidade volte a captar habitantes, e deixe de ter, em algumas das suas zonas, uma atmosfera de abandono e de edifícios degradados, citados pelos entrevistados como o factor mais negativo da cidade. [CEU – Lisboa XXI – 3, p. 157] ■ Em termos urbanísticos e habitacionais, verifica-se um acentuado desordenamento urbanístico e territorial, com relevância para a desertificação e degradação dos centros históricos, a par de um nível elevado de degradação da habitação quer no centro histórico de Lisboa, quer noutras zonas do “casco” urbano da cidade. Do universo de edifícios existentes na cidade, somente 39% não necessitam de qualquer tipo de reparação, tomando como referência os dados dos Censos 2001. [CEU – Lisboa XXI – 3, p. 157] ■ A reabilitação urbana [CEU – Lisboa XXI – 3, pp. 158-159]	■ Nas áreas históricas habitacionais visa-se a promoção do uso habitacional, com vista a obter a sua revitalização demográfica e social. [Artigo 42º, Usos, ponto 1] ■ Nas operações de loteamento a distribuição de usos está sujeita aos seguintes valores de superfície de pavimento máximos e mínimos: Uso Habitacional – mínimo 60%; Uso Terciário – mínimo 2,5%, máximo 25% (sendo obrigatório 2,5% mínimo para comércio); Indústria compatível – máximo 20%. [Artigo 42º, Usos, ponto 6] ■ Nas áreas consolidadas de habitação colectiva visa-se a promoção do uso habitacional, com vista à sua revitalização demográfica e social. [Artigo 49º, Usos, ponto 1] ■ Nas operações de loteamento a distribuição de usos está sujeita aos seguintes valores de superfície de pavimento máximos e mínimos: Uso Habitacional – mínimo 50%; Uso Terciário – mínimo 2,5%, máximo 45% (sendo obrigatório 2,5% mínimo para comércio); Indústria compatível – máximo 20%. [Artigo 49º, Usos, ponto 9] ■ Nas áreas consolidadas de moradias visa-se a promoção do uso habitacional, permitindo-se, no entanto, a mudança do uso habitacional unifamiliar ou bifamiliar para outro uso ou a construção de novos edifícios para habitação colectiva, uso terciário, equipamentos de utilização colectiva ou indústria compatível, nos arruamentos com largura média igual ou superior a 20 metros. [Artigo 51º, Usos, pontos 1] ■ Nas operações de loteamento, a distribuição de usos está sujeita aos seguintes valores de superfície de pavimento máximos e mínimos: Uso Habitacional – mínimo 70%; Uso Terciário – máximo 30%; Indústria compatível – máximo 10%. [Artigo 51º, Usos, pontos 2]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ [CEU – Lisboa XXI – 3, pp. 173-185]

MUNICIPALITY:	Lisboa
DOCUMENTS REVIEWED:	Revisão do Director Municipal (PDM) de Lisboa (Julho de 2007): Proposta de Regulamento do PDM de Lisboa (versão provisória) Colecção de Estudos Urbanos – Lisboa XXI – 2: Desenvolvimento Económico e Competitividade Urbana de Lisboa Colecção de Estudos Urbanos – Lisboa XXI – 3: Habitação e Mercado Imobiliário na Área Metropolitana de Lisboa Colecção de Estudos Urbanos – Lisboa XXI – 4: Diagnóstico Sócio-urbanístico da cidade de Lisboa

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
As características do Concelho de Matosinhos, bastante urbanizado, constituindo-se em grande parte como um único aglomerado urbano, levam a que o seu ordenamento se concentre na colmatação de áreas, na reorganização do seu tecido urbano e da sua malha viária, na redefinição de usos e na busca das ainda possíveis áreas de crescimento. Daqui resulta que estas áreas de crescimento, qualitativamente escassas, merecem uma proposta para atingirem, em extensão, os limites máximos admissíveis, a partir dos quais é evidente que qualquer outra expansão apresenta graves riscos para o equilíbrio urbano e ambiental. Deste modo é introduzida uma intemporalidade na realização do Plano. No que respeita fundamentalmente a urbanização e a ocupação com edificações destas novas áreas. Razão pela qual as perspectivas de crescimento demográfico não têm interesse significativo no cálculo dos espaços necessários que permitam a sua absorção. [PDM – Relatório, 1. As Propostas de Ordenamento, p. 4]	no statements found

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	Incentivar a reconversão de espaços industriais obsoletos e abandonados e a instalação de empresas de produção industrial de tecnologia avançada; [PDM – Relatório, 1. Objectivos, p. 2]

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

MUNICIPALITY:	Matosinhos
DOCUMENTS REVIEWED:	Plano Director Municipal de Matosinhos – Relatório (Junho de 1991) Despacho n.º 92/92 de 3 de Setembro – Plano Director Municipal de Matosinhos Declaração n.º 334/2001 de 16 de Novembro – Plano Director Municipal de Matosinhos Resolução do Conselho de Ministros n.º 10/2002 de 15 de Janeiro – Plano Director Municipal de Matosinhos Resolução do Conselho de Ministros n.º 100/94 Proposta de Regulamento do Plano Director Municipal de Matosinhos – Revisão [http://www.cm-matosinhos.pt/PageGen.aspx?WMCM_PaginaId=9811]

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Por deliberação de 24 de Janeiro de 2000, a Assembleia Municipal do Porto aprovou uma nova ampliação à área crítica de recuperação e reconversão urbanística, a qual passa a abranger a zona da baixa portuense, ou da cidade oitocentista, composta pelas freguesias de Santo Ildefonso, Bonfim, Cedofeita e Massarelos, com o objectivo de acelerar e operacionalizar processos de requalificação física e sócio-económica que invertam as situações de degradação urbanística e de desertificação populacional e residencial. [DR n.º 11/2000] ■ No entanto, nos últimos 25 anos, os parâmetros sócio-económicos do Porto cidade apresentam tendências negativas: a população mais jovem procurou concelhos vizinhos e mais em conta para residir; (...) [Master Plan, p. 3] ■ A Baixa está fortemente desabitada enquanto o Centro Histórico está sobreocupado, a matriz física do território é medieval no Centro Histórico e neo-clássica na Baixa. [Master Plan, p. 6] ■ A evolução demográfica da cidade do Porto apresentou um crescimento gradual até à década de 60, período ao qual se seguiu um fenómeno de perda de população, apenas interrompido na década de 70, o que resultou num máximo populacional atingido no Recenseamento de 1981, com mais de 327 mil habitantes. Já nos anos 80 regista-se novamente uma variação de sinal negativo e o fenómeno de declínio demográfico observado no Porto, que na década anterior se encontrava circunscrito às freguesias do núcleo histórico e um primeiro anel de freguesias contíguas, estende-se espacialmente ao longo da referida década. Esta tendência regressiva, iniciada nos anos 80 e consubstanciada numa quebra de 8%, agravou-se na década de 90. Os resultados do apuramento censitário mais recente (2001) indicam que, nesse ano, a população residente no Porto era de 263.131 habitantes, em oposição a 302.472 em 1991, o que traduz um decréscimo de cerca de 13% e representa a maior perda demográfica da Região Norte, com um efectivo populacional comparável ao existente em meados dos anos 40. Apesar desta quebra acentuada, a evolução demográfica do concelho não foi homogénea. Em termos relativos, os maiores decréscimos verificaram-se em freguesias localizadas no Centro Histórico e na Baixa (-41,1% em Miragaia, -36,3% em Vitória, -35,3% na Sé, -30,4% em Santo Ildefonso). Porém, na verdade, a quebra populacional no Centro Histórico do Porto manifestou-se mais	■ Os habitantes como pilar fundamental de uma área urbana viva É indispensável uma nova política de habitação, criando condições preferenciais no apoio aos proprietários e aos moradores, de modo a promover a instalação de famílias no centro da cidade. A mobilização dos programas existentes de apoio à recuperação de habitação são fundamentais, mas, para as áreas críticas justificam-se outras medidas de política, nomeadamente a alteração à lei das rendas, a revisão da legislação sobre solos e expropriações e a continuidade e longevidade das políticas definidas. [Master Plan, Vectores de Desenvolvimento, p. 8] ■ A - RE-HABITAÇÃO DA BAIXA DO PORTO [Master Plan, Vectores de Desenvolvimento, p. 9-10] ■ Os objectivos definidos para este Projecto-piloto pela Câmara Municipal do Porto foram: (...) _ Reinserção da população residente; [Plano Gestão, Volume I, p. 24] ■ A atracção de população jovem e criativa é assumida como uma questão essencial na dinamização do Centro Histórico, no sentido de associar ao Património Mundial uma imagem dinâmica e de horizontes alargados, a partir de jovens que residam, trabalhem e se divirtam neste lugar. Um importante elemento deste processo é a gestão dos horários comerciais encetada de forma a evitar a desertificação a que o Centro Histórico é deixado depois do encerramento dos serviços. [Plano Gestão, Volume I, p. 143] ■ I.1.8 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SÃO BENTO – Objectivos: _ Garantir o bom estado de conservação do edificado; _ Reabilitar o edificado dos 8 quarteirões que compõem esta operação; _ Valorizar os padrões de cidadania; _ Atrair novos residentes visando o equilíbrio social; _ Criar de novas oportunidades de comércio e serviços, de apoio aos residentes e turistas; _ Dinamizar os eixos estruturantes desta área. [Plano Gestão, Volume II, p. 170]

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
precocemente. As décadas de 40 e 50 registavam já um decréscimo da população da referida área (na ordem dos 5% e 3% respectivamente), mas os anos 60 foram particularmente nefastos no que respeita ao esvaziamento demográfico, caracterizados por ritmos de perda acentuados de forma crescente. No mais recente período inter-censitário registou-se, no Centro Histórico do Porto, uma perda de 35% da população residente, acrescida aos 27% registados nos anos 80. Deste modo, entre 1940 e 2001 este núcleo urbano perdeu 68% (mais de dois terços) dos seus residentes, o que representa uma diminuição dos quase 42 mil habitantes (16% da população de toda a cidade) para pouco acima dos 13 mil (5,8 % da referida). O declínio demográfico e o acentuado envelhecimento da população são os principais traços da evolução do Porto nos últimos 20 anos, os quais reflectem a forte descentralização da função residencial para os concelhos contíguos, o fenómeno da terciarização bem como o saldo natural negativo geral. No caso concreto do Centro Histórico, o seu despovoamento resultou também das operações de realojamento da sua população em bairros sociais, promovidas pelo Estado e pela autarquia a partir da década de 70. Este fenómeno de desertificação do Centro Histórico do Porto foi acompanhado por um acentuado envelhecimento da população residente. O Recenseamento Geral de 1991 indicava que o número de jovens residentes igualava o de idosos, traduzindo-se num índice de envelhecimento de 98%, e dados 2001 tornaram esta realidade ainda dramática revelando um índice de envelhecimento 203%. Este esvaziamento de população jovem é comum a toda a cidade, mas encontra-se, sobretudo, patente nas freguesias do Centro Histórico e Baixa. No que respeita à proporção de idosos sós, no conjunto das famílias clássicas, em 2001 as cinco freguesias do Centro Histórico classificado como Património Mundial apresentavam os valores mais elevados, que rondavam os 16%. As mesmas revelaram também ser as freguesias da cidade com maior percentagem de núcleos familiares monoparentais, na ordem dos 25%, destacando-se uma vez no que respeita à proporção de nados vivos de mães adolescentes (cerca de 6%). As freguesias do Centro Histórico contam com 3574 famílias residentes, o que representa 4,8% do universo das mesmas existentes na cidade. No que respeita aos fluxos migratórios de entrada no Porto, concluiu-se, no mais recente apuramento censitário, que as freguesias que mais atraíram imigrantes foram Paranhos, Ramalde, Cedofeita e Bonfim onde, entre 1995 e 2001, estabeleceram residência cerca de 60% dos imigrantes. Em contrapartida, as freguesias	

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
do Centro Histórico não conseguiram atrair mais de 3,4% deste total. [Plano Gestão, Volume I, pp. 104-105] - Com base numa análise e reflexão dos diferentes contextos presentes no Centro Histórico do Porto Património Mundial foram identificados cinco desafios e cinco oportunidades chave. De forma sintética, podemos identificar os seguintes aspectos do contexto como elementos centrais de caracterização do Centro Histórico do Porto Património Mundial, que permitiram chegar aos desafios e oportunidades destacados à frente: (...) Acentuada perda populacional e envelhecimento da população residente; (...) [Plano Gestão, Volume I, p. 147] - Desafios: (...) _ Acentuada perda populacional e envelhecimento, elevado desemprego e baixos níveis de formação e qualificação da população residente; [Plano Gestão, Volume I, p. 147]	

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Das 18 freguesias da Região do Norte, com maior densidade populacional, 11 pertencem à cidade do Porto, sendo São Nicolau a freguesia com maior densidade populacional. [Plano Gestão, Volume I, p. 104]	no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
- Este relatório apresenta as várias intervenções efectuadas após a classificação de 1996, quer a nível urbanístico, na melhoria das infra-estruturas, na criação de equipamentos colectivos, na valorização dos monumentos e património existente, dinamização do comércio e serviços, quer na grande preocupação pelo incremento das actividades de índole cultural. [Plano Gestão, Volume I, p. 26] - Muito frequente é encontrar edifícios com uma grande sobrecarga humana, lesiva das condições de habitabilidade e conforto desses habitantes, mas também danosa para a capacidade de resistência das estruturas e infra-estruturas dos prédios. [Plano Gestão, Volume I, p. 122]	I.2.19 GESTÃO DAS REDES DE INFRA-ESTRUTURAS DE SANEAMENTO BÁSICO (...) [Plano Gestão, Volume I, p. 182]

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Se considerarmos a totalidade da área das quatro freguesias integradas no Centro Histórico esta área conta com mais de três mil edifícios com função residencial, equivalentes a 6,6% do tecido edificado da cidade, os quais correspondem a 7482 alojamentos. Porém, mais de ¼ destes alojamentos encontram-se desabitados, o correspondente a 27%, valor muito superior à média nacional (12%) e da cidade (15,1%). (...) Embora na cidade do Porto exista um grande número de funções administrativas, estas encontram-se maioritariamente em zonas contíguas ao centro histórico, ou, em alguns casos, em áreas ainda mais afastadas deste, de urbanização recente, o que resultou numa crescente ausência de funcionalidade deste núcleo urbano. [Plano Gestão, Volume I, pp. 105-106]	no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Por deliberação de 24 de Janeiro de 2000, a Assembleia Municipal do Porto aprovou uma nova ampliação à área crítica de recuperação e reconversão urbanística, a qual passa a abranger a zona da baixa portuense, ou da cidade oitocentista, composta pelas freguesias de Santo Ildefonso, Bonfim, Cedofeita e Massarelos, com o objectivo de acelerar e operacionalizar processos de requalificação física e sócio-económica que invertam as situações de degradação urbanística e de desertificação populacional e residencial. [DR n.º 11/2000] ■ A principal dificuldade que consiste em ser um território formado segundo princípios urbanísticos do passado, é também a sua maior virtude, pois, por essa razão, encerra um valor patrimonial único, principal mais-valia face às periferias concorrentes. Reabilitar e revitalizar o centro do Porto, é também respeitar o que caracteriza o seu território, os seus edifícios, as suas gentes e o seu modelo de desenvolvimento, não podendo no entanto ficar aquém da necessária transformação do processo urbano. O objectivo último é re-habitar, para aqui trazendo novas famílias, população mais jovem, novos negócios e empresas de valor acrescentado, mantendo as actividades instaladas, recuperando-as e modernizando-as sempre que possível. Impõe-se assim agir sobre o parque edificado mas sem descuidar uma intervenção sobre o espaço público e redes de infra-estruturas, bem como as questões imateriais, como sejam o reforço do sector da habitação segundo os seus mais diversos padrões, a dotação de equipamentos de utilização colectiva de apoio à residência, as actividades comerciais de proximidade, a promoção de incentivos à localização de novas actividades e serviços, e a qualificação do ambiente urbano. A protecção e valorização ambiental, a racionalização dos consumos energéticos e a aposta na inovação tecnológica, são desígnios a ter, também e, sempre, presentes nos processos a desenvolver. [Master Plan, p. 5] ■ O prestígio das ruas da Baixa para os cidadãos do grande Porto é mais elevado do que o do Centro Histórico, ainda marcado pelo estigma dos anos de abandono e degradação. A qualidade e idade do edificado resultam numa melhor conservação dos prédios na Baixa comparada com os do Centro Histórico. [Master Plan, p. 6] ■ 4. A propriedade privada representa uma	■ É indispensável criar uma oferta de habitação, em qualidade e quantidade, que possa atrair “os tripeiros” a viver no centro da sua cidade. Importa captar moradores de diversos standards sócio-económicos para preencher o edificado que se esvaziou e para vivificar o comércio e as ruas. [Master Plan, p. 5] ■ Os habitantes como pilar fundamental de uma área urbana viva É indispensável uma nova política de habitação, criando condições preferenciais no apoio aos proprietários e aos moradores, de modo a promover a instalação de famílias no centro da cidade. A mobilização dos programas existentes de apoio à recuperação de habitação são fundamentais, mas, para as áreas críticas justificam-se outras medidas de política, nomeadamente a alteração à lei das rendas, a revisão da legislação sobre solos e expropriações e a continuidade e longevidade das políticas definidas. [Master Plan, Vectores de Desenvolvimento, p. 8] ■ A - RE-HABITAÇÃO DA BAIXA DO PORTO [Master Plan, Vectores de Desenvolvimento, p. 9-10] ■ I.1.15 ESTÍMULOS AO INVESTIMENTO PRIVADO – Objectivos: _ Incentivar a função residencial no Centro Histórico; _ Atrair mais promotores à reabilitação, com a possibilidade de ganharem créditos de construção; _ Incentivar os actuais proprietários a executar obras de manutenção e conservação, mantendo em bom estado o edificado e aumentando o mercado de habitações renovadas. [Plano Gestão, Volume II, p. 177] ■ I.1.4 CONSERVAÇÃO E MANUTENÇÃO DA RIBEIRA/BARREDO (...) [Plano Gestão, Volume II, p. 166] ■ I.1.7 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SANTA CLARA [Plano Gestão, Volume II, p. 169] ■ I.1.8 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SÃO BENTO [Plano Gestão, Volume II, p. 170] ■ I.1.9 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO AVENIDA DA PONTE [Plano Gestão, Volume II, p. 171] ■ I.1.10 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO CLÉRIGOS [Plano Gestão, Volume II, p. 172]

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
percentagem significativa do edificado sendo, duma maneira geral, parcelas de menor dimensão, com diferentes tipos de usos, com predomínio da habitação. Esta propriedade apresenta-se, em grande parte, em médio ou mau estado de conservação. [Plano Gestão, Volume I, p. 55] Depois da realização de diversos estudos sobre a caracterização do edificado, da população e do tecido económico da Baixa Portuense e do seu Centro Histórico, foi possível definir 5 grandes objectivos para a acção da Porto Vivo, SRU: A re-habitação da Baixa do Porto; (...) [Plano Gestão, Volume I, p. 60]	- I.1.11 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO VITÓRIA [Plano Gestão, Volume II, p. 173] - I.1.12 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO TAIPAS [Plano Gestão, Volume II, p. 174] - I.1.13 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SÃO FRANCISCO [Plano Gestão, Volume II, p. 175] - Aspectos operacionais, mas extremamente relevantes como a qualificação do espaço público, a recuperação do edificado, a reabilitação e a dinamização comercial dos edifícios e conjuntos desactivados, a oferta de elevados padrões de segurança e conforto, (...) [Plano Gestão, Volume II, p. 256]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
- Redução das assimetrias urbanas existentes, fomentando a equidade da localização dos investimentos públicos e reforçando a coesão social e territorial, com especial incidência nos bairros sociais de intervenção prioritária. [RCM n.º 19/2006, Artigo 1.º, ponto 2, alínea d] - Ao nível das desvantagens, destaca-se o estacionamento e tráfego automóvel (37%), a degradação/abandono do edificado (17%), a limpeza urbana e a degradação do ambiente social (ambas com 13%). [Plano Gestão, Volume I, p. 143] - Ou seja, que garanta a manutenção e preservação do excepcional valor patrimonial do Centro Histórico do Porto o que, para além do aprofundamento do processo de reabilitação em curso, significa a redução dos factores que afectam negativamente a qualidade desta área da cidade: a insuficiente limpeza urbana, a limitada mobilidade, a poluição sonora, o vandalismo, a exclusão social (com destaque	- A protecção dos direitos dos residentes, nomeadamente através da afectação de um rácio mínimo de 10%a habitação a custos controlados, nas unidades mais carenciadas; [RCM n.º 19/2006, Artigo 81.º, ponto 2, alínea b] - A vistoria integrada constitui uma operação técnica de identificação e valoração global de uma pré-existência, composta por um conjunto de valorações específicas e por uma listagem de restrições e exigências taxativas, que é levada a efeito de modo normalizado e que contém três vertentes fundamentais: (...) c) O levantamento sócio-económico dos agregados familiares. [RCM n.º 19/2006, Artigo 81.º, ponto 5] - A1- Unidades Operativas de Planeamento e Gestão UOPG(s) - A4- Bairros Sociais - Programa de Reconversão

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
para a pobreza, alcoolismo e toxicodependência), a má conservação do mobiliário urbano e dos pavimentos e os excessos do lazer nocturno. [Plano Gestão, Volume II, p. 256]	▪ Objectivo Específico 5: Promover o desenvolvimento social do Centro Histórico do Porto Promover o desenvolvimento social no Centro Histórico do Porto através da implementação de medidas e programas de prevenção e combate à exclusão, delinquência e toxicodependência. PROGRAMAS: A. Desenvolvimento e coesão social (...) [Plano Gestão, Volume II, pp. 198, 205] ▪ I.1.4 CONSERVAÇÃO E MANUTENÇÃO DA RIBEIRA/BARREDO (...) [Plano Gestão, Volume II, p. 166] ▪ I.1.5 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SÉ (...) [Plano Gestão, Volume II, p. 167] ▪ I.1.6 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO MOUZINHO/FLORES [Plano Gestão, Volume II, p. 168] ▪ I.1.7 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SANTA CLARA [Plano Gestão, Volume II, p. 169] ▪ I.1.8 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SÃO BENTO [Plano Gestão, Volume II, p. 170] ▪ I.1.9 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO AVENIDA DA PONTE [Plano Gestão, Volume II, p. 171] ▪ I.1.11 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO VITÓRIA [Plano Gestão, Volume II, p. 173] ▪ I.1.12 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO TAIPAS [Plano Gestão, Volume II, p. 174] ▪ I.1.13 REABILITAÇÃO DO EDIFICADO: OPERAÇÃO SÃO FRANCISCO [Plano Gestão, Volume II, p. 175]

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ Uma gestão moderna da qualidade do espaço é indispensável ao sucesso da estratégia de desenvolvimento. O centro da cidade tem de estar permanentemente limpo, pintado, vigiado e seguro. [Master Plan, p. 5] ▪ I.3.25 PLANO DE SEGURANÇA [Plano Gestão, Volume II, p. 194]

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ Afirmação do centro histórico e da área central como referências insubstituíveis do desenvolvimento urbano de toda a área metropolitana do Porto, potenciando e reforçando a sua revitalização e animação. [RCM n.º 19/2006, Artigo 1.º, ponto 2, alínea e] ■ A1- Unidades Operativas de Planeamento e Gestão UOPG(s) [RCM n.º 19/2006] ■ A5- ACCRU (Programa de Revitalização) [RCM n.º 19/2006] ■ O turismo, cultura e lazer como forças intrínsecas à cidade As características ambientais e de edificado da cidade, complementadas com a rede cultural e de lazer serão a base para uma política de turismo ligada à cultura, aos negócios e ao conhecimento. É fundamental ainda que a cidade viva colectivamente cada um dos seus momentos e mais importantes eventos. No Porto, algo deverá estar sempre a acontecer. [Master Plan, Vectores de Desenvolvimento, p. 9] ■ A - RE-HABITAÇÃO DA BAIXA DO PORTO [Master Plan, Vectores de Desenvolvimento, pp. 14-16] ■ E.2 – ESPAÇO PÚBLICO DE CONVIVIALIDADE O espaço público da ZIP é dominado por uma série de factos diferenciados que caracterizam os tecidos urbanos tradicionais dos centros históricos e dos centros de cidade e que proporcionam a sua imagem, aptidão e individualidade. Contudo, um dos seus aspectos mais atractivos reside na enorme variedade de espaços, uns cuidados, tratados quase como espaços privados, de escala intimista e de pertença, outros deixados ao transcorrer do tempo e à sorte, e outros vividos e frequentados participando activamente no fazer e viver cidade. Existe uma carência ao nível de espaços de apoio a actividades lúdicas, envolvendo nomeadamente crianças e adolescentes. Assim, para suprir esta carência deve-se introduzir uma rede alargada de parques infantis e espaços de diversão, instituir uma rede de percursos e corredores de lazer, definir atributos e valores a espaços como incentivo às relações de vizinhança e ao seu usufruto, e dotar o espaço de elementos de sombra e mobiliário urbano. Por outro lado, é fundamental que o espaço público tenha uma

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	correspondência à altura das alterações que se pretendem introduzir ao nível do comércio, negócios e turismo, definindo, por exemplo, uma rede de largos e praças dedicadas às feiras e mercados temáticos de acontecimento regular, estimulando novos eixos de circulação e favorecendo novas indústrias, turismo e comércios. É ainda importante estabelecer ligações mecânicas auxiliares da mobilidade e do turismo no centro histórico. Por fim, a melhoria do ambiente urbano e a reformulação da imagem da cidade constituem também objectivos importantes, alcançáveis com a arborização das ruas, a retirada gradual do estacionamento à superfície, a reformulação dos espaços de representação (e re-atribuição de sentido), a definição de pontos de pausa e dissuasores da circulação viária, a criação de atravessamentos nos quarteirões (facultando ligações transversais entre ruas e vencendo diferenças de cota) e a abertura de interiores de quarteirão para espaço público ou de uso público, mas de regulação privada. É ainda de registar a importância da incorporação da frente ribeirinha como uma área de acção especial [Master Plan, Vectores de Desenvolvimento, p. 17]

MUNICIPALITY:	Porto
DOCUMENTS REVIEWED:	Decreto Regulamentar n.º 54/85 de 12 de Agosto – ACRRU: Centro Histórico da Cidade do Porto Decreto Regulamentar n.º 14/94 de 17 de Junho – ACRRU: Centro Histórico da Cidade do Porto Decreto Regulamentar n.º 11/2000 de 24 de Agosto – ACRRU: Centro Histórico da Cidade do Porto Declaração n.º 236/2002 de 29 de Julho – Plano de Pormenor das Antas Resolução do Conselho de Ministros n.º 19/2006 de 3 de Fevereiro – Revisão do Plano Director Municipal do Porto Síntese Executiva do Masterplan da Porto Vivo SRU (Abril de 2005) Plano de Gestão do Centro Histórico do Porto Património Mundial – Volume I (5 de Dezembro de 2008) Plano de Gestão do Centro Histórico do Porto Património Mundial – Volume II (5 de Dezembro de 2008)

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ Definir princípios e regras de uso, de ocupação e de transformação do solo que consagrem uma utilização racional dos espaços; [RCM n.º 100/94, Artigo 3º - Objectivos]	▪ no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ Para a área do núcleo histórico de Tomar (...) definem-se ainda os seguintes objectivos: (...) Potencializar a revitalização social e funcional de toda a área. [RCM n.º 100/94, Artigo 31º - Espaços urbanos de nível I]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

MUNICIPALITY:	Tomar
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 100/94 Declaração n.º 214/2001 Declaração n.º 83/2003

TOMAR

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Comportamento diferente apresenta a sede de concelho que registou uma perda populacional de -4.3% (-831 habitantes), entre 1981 e 1991, e outra de -0.2% (45 habitantes), entre 1991 e 2001. (...) Em contraponto, as freguesias de Cachoeiras e Calhandriz possuem quantitativos populacionais mais baixos e variações pouco ambiciosas da sua população, resultado de uma realidade marcadamente rural. [Síntese do Diagnóstico, p. 12] ■ O concelho de Vila Franca de Xira possui um dos valores mais baixos deste indicador, mas a tendência de envelhecimento está bem patente na sua evolução: de 1991 para 2001, o índice de envelhecimento passou de 0.42 para 0.67. Consequentemente, verificou-se um aumento no índice de dependência de idosos em todos os concelhos da Grande Lisboa, sendo que Vila Franca de Xira apenas é ultrapassada por Sintra, apresentando assim dos valores mais baixos deste indicador: 0.15 face aos 0.23 da sub-região. [Síntese do Diagnóstico, p. 13] ■ Tendência para o desajustamento entre a oferta e a procura de emprego locais. Tendência para uma ligeira diminuição do peso dos grupos etários mais jovens (0-14 anos) e progressivo aumento da população mais idosa. Freguesias mais rurais com maiores índices de envelhecimento. Existência de uma maior mobilidade residencial com implicações na estabilidade dos efectivos demográficos. [Síntese do Diagnóstico, Quadro 1: Matriz de Potencialidades/ Debilidades – DEMOGRAFIA, p. 16] ■ Paralelamente, assiste-se a uma pequena perda de população em Alhandra e em Vila Franca de Xira. (...) os maiores crescimentos populacionais têm sido verificados nas freguesias mais a Sul, mais próximas da cidade de Lisboa, e no extremo Norte, apresentando assim um relativo esvaziamento da área central. (...) Já as densidades mais baixas verificam-se em Cachoeiras (78 hab/Km²) e Calhandriz (119 hab/Km²). [Síntese do Diagnóstico, pp. 43, 44] ■ Na década de 90, verificaram-se alterações na dimensão média das famílias, no sentido da sua diminuição, traduzindo-se num crescimento mais rápido do número de famílias do que do número de habitantes. Estas evoluções significam que, embora existindo mais famílias, elas são constituídas por menos elementos. O diferencial de crescimento entre o número de famílias e o número de pessoas, no concelho de Vila Franca de Xira traduziu-se, em apenas	■ Ganham assim, importância acrescida, as opções constantes da 1ª Revisão do PDM, as quais definem um quadro de ordenamento do território para o Concelho com as características seguintes: (...) □ Criação de condições para a fixação de novos habitantes nas freguesias rurais, invertendo a tendência de diminuição/envelhecimento de residentes naquelas freguesias. [Principais Objectivos da 1ª Revisão do PDM de Vila Franca de Xira] ■ Ajustar os perímetros urbanos em função do crescimento verificado e previsto; [Síntese do Diagnóstico, p. 5] ■ Defender a qualidade de vida dos residentes, utentes e visitantes [Plano Estratégico, DESAFIOS/JANELAS DE OPORTUNIDADE, p. 13] ■ Valorizar o património natural e cultural - Vila Franca de Xira, Município com Identidade Reforçar a coesão social e territorial - Vila Franca de Xira, Município Solidário Promover a reorganização dos espaços urbanos dos serviços municipais - Vila Franca de Xira, Município de Qualidade [Plano Estratégico, DESAFIOS/JANELAS DE OPORTUNIDADE, p. 24-26, 27; ver também 3 Vectores de Desenvolvimento e Programas de Actuação e 4 Projectos Estratégicos]

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
uma década, na passagem de 3,1 pessoas/família, em 1991, para 2,8 pessoas/família, em 2001. [Síntese do Diagnóstico, p. 56] ▪ Debilidades dos recursos humanos, (baixas habilitações, estrutura etária envelhecida, reduzido peso de quadros superiores, escassez de técnicos intermédios - electricidade, mecânica, carpintaria,...). [Plano Estratégico, p. 6]	

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ Uma densidade populacional de 379,9 hab/km², o que, no contexto da AML e da Grande Lisboa, com uma densidade populacional média de 845,5 hab/km², é um valor relativamente modesto. [Síntese do Diagnóstico, p. 10]	▪ no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Nos últimos dez anos, registou-se um extraordinário crescimento do parque habitacional de 29% (mais 12321 alojamentos), tendo sido no mesmo sentido da evolução da população, que no mesmo período aumentou 18,7%. A ocorrência destes fenómenos, com a importância que evidenciam, traduz, claramente, a capacidade atractiva e de fixação da população residente. [Síntese do Diagnóstico, p. 56] ■ Ao nível das formas de ocupação dos alojamentos, o concelho de Vila Franca de Xira apresenta uma estrutura reveladora do predomínio da residência habitual, em que os alojamentos vagos representam cerca de 12% e os fogos utilizados sazonalmente ou como residência secundária correspondem, apenas, a 8%. [Síntese do Diagnóstico, p. 56] ■ A avaliação da situação habitacional do Concelho de Vila Franca de Xira traduz, sobretudo, a falta de habitação adequada às necessidades da população em função dos seus escalões de rendimento. Efectivamente, as carências actuais rondam os 3500 fogos (num total aproximado de 54 mil alojamentos familiares clássicos), quando existe, no entanto, uma importante componente de fogos inoperantes (6186 fogos vagos). [Síntese do Diagnóstico, p. 59]	■ Ganham assim, importância acrescida, as opções constantes da 1ª Revisão do PDM, as quais definem um quadro de ordenamento do território para o Concelho com as características seguintes: □ Controlo da expansão urbana nas freguesias mais a Sul (Vialonga, Forte da Casa, Póvoa de Santa Iria e Alverca do Ribatejo), apostando igualmente na criação de condições para a fixação de novas actividades económicas, geradoras de emprego; (...) [Principais Objectivos da 1ª Revisão do PDM de Vila Franca de Xira] ■ Reabilitar os espaços industriais abandonados, com projectos de referência internacional, usufruindo da maior valia em termos de localização, permitindo valorizar as qualidades cénicas do Tejo; [Principais Objectivos da 1ª Revisão do PDM de Vila Franca de Xira] ■ Em face das opções acima descritas e com vista a alcançar os objectivos preconizados para a 1ª Revisão do PDM, salientam-se, por mais significativos, os princípios do Modelo de Ordenamento: □ Ajustar as áreas urbanizadas delimitando-as em função da ocupação efectiva ou comprometimento legal de ocupação; □ Contrariar as expansões urbanas ao longo das vias, sempre que possível através da interrupção dos perímetros urbanos (nos aglomerados de menores dimensões) ou da implementação de faixas de estrutura ecológica urbana, associadas ao domínio hídrico ou atravessamento de canais de infra-estruturas (Póvoa de Santa Iria-Castanheira do Ribatejo); □ Definir correctamente as áreas a urbanizar em função das expectativas de desenvolvimento e ajustá-las às características do território, libertando a frente ribeirinha do excesso de áreas urbanizáveis constantes do PDM em vigor; (...) □ Reconverter os espaços industriais abandonados ou desactualizados; □ Definir áreas de multiusos estrategicamente localizadas como base impulsionadora para fixação de actividades logísticas e empresariais, científicas, tecnológicas e de investigação; [Principais Objectivos da 1ª Revisão do PDM de Vila Franca de Xira] ■ Ajustar os perímetros urbanos em função do crescimento verificado e previsto; [Síntese do Diagnóstico, p. 5]

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ (...) o envelhecimento do seu [zona antiga de Cachoeiras] parque edificado e o estado obsoleto de muitas das suas infra-estruturas são situações que, aliadas à limitada capacidade de intervenção da Câmara Municipal de Vila Franca de Xira, têm concorrido para a consequente e progressiva degradação dos edifícios e o agravamento das condições de segurança e salubridade. [Decreto n.º 5/99] ■ (...) o envelhecimento do seu [zona antiga de Vila Franca de Xira] parque edificado e o estado obsoleto de muitas das suas infra-estruturas são situações que, aliadas à limitada capacidade de intervenção da Câmara Municipal de Vila Franca de Xira, têm concorrido para a consequente e progressiva degradação dos edifícios e o agravamento das condições de segurança e salubridade. [Decreto n.º 6/99] ■ (...) o envelhecimento do seu [zona ribeirinha de Vila Franca de Xira] parque edificado e o estado obsoleto de muitas das suas infra-estruturas são situações que, aliadas à limitada capacidade de intervenção da Câmara Municipal de Vila Franca de Xira, têm concorrido para a consequente e progressiva degradação dos edifícios e o agravamento das condições de segurança e salubridade. [Decreto n.º 7/99] ■ (...) o envelhecimento do seu [zona antiga de Alhandra] parque edificado e o estado obsoleto de muitas das suas infra-estruturas são situações que, aliadas à limitada capacidade de intervenção da Câmara Municipal de Vila Franca de Xira, têm concorrido para a consequente e progressiva degradação dos edifícios e o agravamento das condições de segurança e salubridade. [Decreto n.º 8/99] ■ Parque habitacional com bolsas de edifícios envelhecidos e em deficiente estado de conservação. [Plano Estratégico, p. 4]	■ É concedido ao município de Vila Franca de Xira, nos termos do n.º 1 do artigo 27.º do Decreto-Lei n.º 794/76, de 5 de Novembro, e legislação complementar, o direito de preferência, pelo prazo de três anos, nas transmissões entre particulares, a título oneroso, dos terrenos ou edifícios situados na zona referida no artigo 1.º. [Decretos n.º 5, 6, 7 e 8/99 e 16/2004, Artigo 3.º, ponto 1]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ No que concerne aos níveis de escolaridade, o concelho de Vila Franca de Xira está numa situação de alguma debilidade no contexto da sub-região, e quase em pé de igualdade com o concelho de Mafra. De facto, possuem as maiores percentagens de analfabetos da Grande Lisboa e as menores no que se refere à população que frequentou com sucesso o ensino superior. Dada a proximidade a Lisboa e a outros concelhos com estabelecimentos que ministram cursos médios e superiores, estes dados podem estar associado ao facto de Vila Franca de Xira não ter tido capacidade para atrair e fixar população com graus de exigência em matéria de habitação mais altos. [Síntese do Diagnóstico, p.14] ■ Matriz cultural e socioeconómica muito estratificada, originando dificuldades de integração social e territorial. [Síntese do Diagnóstico, Quadro 7: Matriz de Potencialidades/ Debilidades – QUALIDADE DE VIDA, p. 22] ■ Rápido crescimento demográfico e urbano originando diferentes ocupações do território e introduzindo dificuldades adicionais à gestão do território e à integração de grupos sociais diferenciados. [Síntese do Diagnóstico, Quadro 8: Matriz de Oportunidades/ Ameaças – QUALIDADE DE VIDA, p. 23] ■ Rápido crescimento demográfico e urbano originando diferentes ocupações do território e introduzindo dificuldades adicionais à sua gestão, bem como à integração de grupos sociais com especiais dificuldades. [Plano Estratégico, p. 9]	■ Tendo em vista a requalificação do espaço urbano da zona do Bom Sucesso/Arcena, a manutenção, reabilitação e renovação do património construído naquela área, a integração efectiva da população residente e a melhoria da qualidade de vida, bem como a prossecução dos objectivos traçados no protocolo celebrado ao abrigo do PROQUAL — Programa Integrado de Qualificação das Áreas Suburbanas da Área Metropolitana de Lisboa, cujo objectivo central é a qualificação do território, das pessoas e das organizações, visando a promoção do desenvolvimento sustentável da região e a sua coesão económica e social, a Câmara Municipal de Vila Franca de Xira solicitou ao Governo que a referida zona fosse declarada área crítica de recuperação e reconversão urbanística, ao abrigo do artigo 41.o do Decreto-Lei n.º 794/76, de 5 de Novembro, o que através do presente diploma se concede. [Decreto n.º 16/2004] ■ É concedido ao município de Vila Franca de Xira, nos termos do n.º 1 do artigo 27.o do Decreto-Lei n.º 794/76, de 5 de Novembro, e legislação complementar, o direito de preferência, pelo prazo de três anos, nas transmissões entre particulares, a título oneroso, dos terrenos ou edifícios situados na zona referida no artigo 1.º. [Decreto n.º 16/2004, Artigo 3.º, ponto 1] ■ (...) continuar a desenvolver projectos que visam a prossecução de objectivos prioritários estratégicos para fazer face a debilidades sociais, urbanísticas e funcionais na área do Bom Sucesso/Arcena, entre os quais, designadamente, a criação de estruturas de apoio e de reforço das iniciativas que promovam as condições de sociabilidade, de integração e de participação das populações, bem como a melhoria das condições de acessibilidade e de mobilidade e o reforço da integração urbana na área de intervenção visada. [Decreto n.º 30/2007] ■ É concedido ao município de Vila Franca de Xira, nos termos do disposto no n.º 1 do artigo 27.º do Decreto-Lei n.º 794/76, de 5 de Novembro, e legislação complementar, o direito de preferência nas transmissões a título oneroso, entre particulares, dos terrenos ou edifícios situados na área crítica de recuperação e reconversão urbanística da zona do Bom Sucesso/Arcena, em Alverca do Ribatejo, até 31 de Maio de 2010. [Decreto n.º 30/2007, Artigo 3.º, ponto 1] ■ (ii) Qualificação urbana, a todos os níveis, o que implica: mais e melhores serviços e equipamentos públicos; construção/reabilitação de equipamentos de convívio e de actividades lúdicas/culturais/recreativas/desportivas; melhoria

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	do ambiente e imagem urbana, com reabilitação dos espaços públicos, a estabilização de padrões elevados da limpeza, a colocação de arte pública e mobiliário urbano de qualidade; e a criação de empregos de proximidade, que permitam a gestão de iniciativas e equipamentos públicos e sejam particularmente dirigidos à integração de camadas e grupos sociais desfavorecidos e marginalizados. Qualificação dos recursos humanos, com dinamização de iniciativas capazes de potenciar políticas activas do emprego, minorando a exclusão do mercado de trabalho de certos grupos (jovens, mulheres, trabalhadores menos qualificados muitas vezes oriundos de empresas em reestruturação, minorias) e favorecendo a criação de “empregos de proximidade” que suportem serviços às populações em áreas carenciadas. [Síntese do Diagnóstico, p.16]

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Riscos de desagregação social derivados do desajustamento entre a oferta e a procura de emprego. Riscos de desadequação entre a procura e a oferta de equipamentos orientados para sectores específicos da população (jovens e idosos). Risco de desestruturação das comunidades mais rurais por via do alastramento da edificação e de uma maior procura de espaços naturalizados. [Síntese do Diagnóstico, Quadro 2: Matriz de Oportunidades/ Ameaças - DEMOGRAFIA, p. 17] ■ Riscos de desagregação social derivados do desajustamento entre a oferta e a procura de emprego. [Plano Estratégico, p. 1]	■ Tendo em vista a requalificação do espaço urbano da zona do Bom Sucesso/Arcena, a manutenção, reabilitação e renovação do património construído naquela área, a integração efectiva da população residente e a melhoria da qualidade de vida, bem como a prossecução dos objectivos traçados no protocolo celebrado ao abrigo do PROQUAL — Programa Integrado de Qualificação das Áreas Suburbanas da Área Metropolitana de Lisboa, cujo objectivo central é a qualificação do território, das pessoas e das organizações, visando a promoção do desenvolvimento sustentável da região e a sua coesão económica e social, a Câmara Municipal de Vila Franca de Xira solicitou ao Governo que a referida zona fosse declarada área crítica de recuperação e reconversão urbanística, ao abrigo do artigo 41.º do Decreto-Lei n.º 794/76, de 5 de Novembro, o que através do presente diploma se concede. [Decreto n.º 16/2004] ■ É concedido ao município de Vila Franca de Xira, nos termos do n.º 1 do artigo 27.º do Decreto-Lei n.º 794/76, de 5 de Novembro, e legislação complementar, o direito de preferência, pelo prazo de três anos, nas transmissões entre particulares, a título oneroso, dos terrenos ou edifícios situados na zona referida no artigo 1.º. [Decreto n.º 16/2004, Artigo 3.º, ponto 1] ■ (...) continuar a desenvolver projectos que visam a prossecução de objectivos prioritários estratégicos para fazer face a debilidades sociais, urbanísticas e funcionais na área do Bom Sucesso/Arcena, entre os quais, designadamente, a criação de estruturas de apoio e de reforço das iniciativas que promovam as condições de sociabilidade, de integração e de participação das populações, bem como a melhoria das condições de acessibilidade e de mobilidade e o reforço da integração urbana na área de intervenção visada. [Decreto n.º 30/2007] ■ É concedido ao município de Vila Franca de Xira, nos termos do disposto no n.º 1 do artigo 27.º do Decreto-Lei n.º 794/76, de 5 de Novembro, e legislação complementar, o direito de preferência nas transmissões a título oneroso, entre particulares, dos terrenos ou edifícios situados na área crítica de recuperação e reconversão urbanística da zona do Bom Sucesso/Arcena, em Alverca do Ribatejo, até 31 de Maio de 2010. [Decreto n.º 30/2007, Artigo 3.º, ponto 1]

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Agravamento das condições urbanísticas por via do acréscimo da densidade do espaço construído e da insuficiência de espaços de sociabilidade, e das condições sociais com a dificuldade de integração de grupos económica e socialmente diferenciados. [Síntese do Diagnóstico, Quadro 8: Matriz de Oportunidades/Ameaças – QUALIDADE DE VIDA, p. 23]	no statements found

MUNICIPALITY:	Vila Franca de Xira
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 16/93 – Regulamento do Plano Director Municipal de Vila Franca de Xira Declaração n.º 259/2001 Resolução do Conselho de Ministros n.º 43/2004 Declaração n.º 209/2004 Declaração n.º 63/2005 Decreto n.º 5/99 Decreto n.º 6/99 Decreto n.º 7/99 Decreto n.º 8/99 Decreto n.º 16/2004 Decreto n.º 30/2007 Principais Objectivos da 1ª Revisão do PDM de Vila Franca de Xira Síntese do Diagnóstico 1ª Revisão do PDM de Vila Franca de Xira (V4) Volume II, AGOSTO de 2004 (revisto em Março de 2006) Plano Estratégico do Concelho de Vila Franca de Xira

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Tendências Pesadas: 1. DESPOVOAMENTO RURAL E CONCENTRAÇÃO URBANA - Decréscimo dos efectivos demográficos, consequência da redução continuada dos níveis de fecundidade, que se verifica em simultâneo com o despovoamento rural, motivado pelo abandono das populações que residem nos lugares de menores dimensões, cada vez mais isolados na vastidão do território, e com a concentração das populações nos centros urbanos de maior dimensão ou importância administrativa. [III. Diagnóstico Prospectivo Regional, Diagnóstico Regional do PROTA, p. 15] ■ Factores de estrangulamento: (...) 4. Ausência de dinamismo ao nível da actividade económica que se traduz pela reduzida capacidade de atrair e fixar activos, pelo baixo retorno do investimento, pela variação negativa do nível de emprego e consequente declínio populacional e pelo progressivo abandono dos espaços rurais e das terras agrícolas, levando à migração dos segmentos mais jovens da população e ao contínuo agravamento do índice de envelhecimento. [VI. Diagnóstico Integrado do Domínio das Actividades Agro-Florestais e Desenvolvimento Rural, Diagnóstico Regional do PROTA, p. 44] ■ Factores de estrangulamento: 1. Nas últimas décadas a região sofreu uma significativa redução de população, tendo-se registado, neste período, um reforço demográfico dos principais centros urbanos e uma redução da densidade populacional numa vasta área territorial fruto do despovoamento quase generalizado. O sistema urbano é constituído por um grande número de centros de pequena dimensão económica e social, com áreas urbanas que estão num processo de regressão demográfica. O Norte Alentejano e o Baixo Alentejo são territórios profundamente debilitados em termos demográficos, exibindo taxas de crescimento natural negativas e, consequentemente, um grande envelhecimento populacional. 2. Os níveis significativamente baixos da natalidade no Alentejo, muito abaixo do limiar de substituição das gerações, contribuem para o continuado decréscimo dos efectivos demográficos da região, embora com uma intensidade de declínio inferior à que se registou no passado. Assim, o despovoamento regional reflecte uma incapacidade de atracção suficiente para contrabalançar os decréscimos naturais, fruto de uma estrutura etária duplamente envelhecida (o crescimento migratório ultrapassou o natural, na última década, mas foi na maioria dos concelhos	■ Desafios: (...) 2. DEMOGRAFIA, POPULAÇÃO E RECURSOS HUMANOS – No contexto demográfico, os desafios que se colocam à região Alentejo, apontam para três vectores fundamentais: sustentar e inverter o decréscimo populacional, com reforço da atractividade territorial e promoção do tecido produtivo regional, de forma a permitir o reforço da dinâmica migratória de sinal positivo; promover a qualificação dos centros urbanos dotando-os de capacidades de retenção da população residente e, por último, incrementar os níveis de qualificação e de competências dos recursos humanos. [III. Diagnóstico Prospectivo Regional, Diagnóstico Regional do PROTA, p. 20] ■ Desafios: (...) 5. Modernizar os sistemas de transportes e flexibilizar a sua gestão, sobretudo em meio urbano e nas áreas mais escassamente povoadas, incluindo a promoção de soluções assentes em novas parcerias e o incentivo a alternativas de transporte menos poluentes, equacionando também utilizações alternativas para os ramais ferroviários desactivados. [V. Diagnóstico Integrado do Domínio Das Infra-Estruturas e Redes de Suporte, Diagnóstico Regional do PROTA, p. 38] ■ Desafios: (...) 2. Reforçar e consolidar uma prática de cooperação territorial e de associação intermunicipal na promoção de políticas de desenvolvimento territorial, na oferta de equipamentos e serviços em função de subsistemas regionais ou do próprio sistema urbano regional. Esta cooperação garante uma maior racionalização dos recursos físicos e humanos e reforça a coesão social e territorial. Neste âmbito, devem merecer especial atenção as condições de acessibilidade e a oferta de transportes colectivos e o desenvolvimento de serviços móveis ou serviços suportados pelas TIC. (...) 6. Para assegurar a sustentabilidade dos espaços de baixa densidade é necessário reflectir o papel da rede de pequenos centros urbanos na prestação de serviços de proximidade. É necessário dotar os territórios de condições que lhes permitam assegurar a multifuncionalidade territorial – pluriactividade do território e da população – através da disponibilidade de TIC, da melhoria das condições de mobilidade aos bens e serviços (este desafio coloca-se sobretudo para a população idosa e isolada, mas pode ser ultrapassado com um reforço dos serviços

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ainda incipiente). As aldeias e vilas mostram uma fraca capacidade de atracção e fixação de população e de geração de emprego. (...) 4. Uma economia e um consumo urbano dependente de transferências públicas. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo De Povoamento, Diagnóstico Regional do PROTA, pp. 66-67] ■ Tendências Pesadas: 1. Concentração populacional nos aglomerados urbanos de maior dimensão, acompanhada por um despovoamento considerável das áreas rurais e dos lugares de menor dimensão. A desvitalização económica e social do espaço rural traduz-se no abandono, envelhecimento, desemprego, e implicitamente migração para espaços urbanos de pessoas e serviços. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo De Povoamento, Diagnóstico Regional do PROTA, p. 68] ■ Tendências Emergentes: (...) 2. Perda de funções residenciais e económicas de alguns núcleos históricos, acompanhada de um crescimento, por vezes desordenado e desqualificado, das periferias. Em alguns centros de maior dimensão, a expansão urbana cria espaços intersticiais abertos que condicionam o crescimento das cidades e desqualificam o espaço urbano. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo De Povoamento, Diagnóstico Regional do PROTA, p. 68] ■ Potencialidades Estratégicas: 1. A rede urbana principal está estruturada em torno das sedes de concelho. Neste conjunto destacam-se: Évora, Beja e Portalegre como as principais cidades âncora, enquanto pólos económicos e administrativos regionais; Sines/Santiago do Cacém/Santo André, o eixo urbano Elvas-Campo Maior e Estremoz/Borba/Vila Viçosa emergem reforçando a capacidade competitiva do sistema urbano regional. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo de Povoamento, Diagnóstico Regional do PROTA, p. 66]	móveis). [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo De Povoamento, Diagnóstico Regional do PROTA, pp. 70-71] ■ Evolução da População Residente [Relatório Complementar do PROTA, p. 27] ■ Estrutura Urbana da População Residente [Relatório Complementar do PROTA, p. 27] ■ Concentração da população residente no Sistema Urbano Regional [Relatório Complementar do PROTA, p. 27] ■ Concentração Urbana [Relatório Complementar do PROTA, p. 27] ■ Evolução da Concentração Populacional [Relatório Complementar do PROTA, p. 27] ■ Atractividade Populacional absoluta e relativa [Relatório Complementar do PROTA, p. 27] ■ Evolução da População Residente nos Centros Urbanos (CU) [Relatório Complementar do PROTA, p. 27] ■ Evolução da Estrutura do Povoamento [Relatório Complementar do PROTA, p. 27] ■ Apoio Social: 4. Para a territorialização da política pública de segurança social competirá à Administração Central, à Administração Local e/ou a outras instituições públicas ou privadas: b) Criar novos lugares em creches e em valências e equipamentos de apoio aos idosos, justificadas pelas necessidades de apoio às populações infantis e pelo continuado envelhecimento demográfico da população da região. [V.3.B Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 112] ■ a) Dimensionar e organizar geograficamente a oferta de cuidados de saúde primários e hospitalares atendendo à distribuição da população presente, aos níveis de envelhecimento dos residentes e à fraca mobilidade regional. [V.3.B Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 113] ■ e) Garantir a acessibilidade dos cidadãos a bens, serviços e equipamentos em condições de equidade, sem esquecer os estratos da população mais envelhecida e os utentes com mobilidade reduzida. [V.4.A Normas gerais. V.4 Sistema de Acessibilidades e de Conectividade Internacional, Relatório Fundamental do PROTA, p. 131]

Sinking population density

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■ Factores de Afirmação da Região: PAISAGEM E MODELO DE POVOAMENTO - A paisagem alentejana distingue-se, no contexto nacional, pela extensão e harmonia da paisagem, fruto da grande uniformidade das planícies, da dimensão da propriedade, do sistema de culturas, da baixa densidade demográfica e do modelo de povoamento. O bom relacionamento cénico entre o património edificado e os espaços naturais envolventes contribuem para a singularidade deste território. A qualidade ambiental e o clima quente e seco sustentam a manutenção desta originalidade. [II. A Afirmação Externa da Região, Diagnóstico Regional do PROTA, p. 7] ■ Potencialidades Estratégicas: 6. ESTRUTURA DE POVOAMENTO URBANO INDUTORA DE UMA SUSTENTABILIDADE AMBIENTAL - Uma estrutura de povoamento concentrada, facilitadora do ordenamento territorial e da dotação de infra-estruturas e equipamentos, revela-se fundamental na sustentabilidade dos territórios de baixa densidade. [III. Diagnóstico Prospectivo Regional, Diagnóstico Regional do PROTA, p. 11] ■ 2. AFIRMAÇÃO DOS PRINCIPAIS CENTROS URBANOS E DAS GRANDES INFRA-ESTRUTURAS COMO MOTORES DE CRESCIMENTO ECONÓMICO - As cidades e as grandes áreas urbanas, em particular, viram reforçadas, nas últimas décadas, as suas vocações como áreas geradoras de crescimento baseado na capacidade de produção de conhecimento, no potencial de inovação empresarial e comercial e no estabelecimento de redes empresariais e institucionais. Em contextos rurais ou de baixa densidade demográfica e económica, a estrutura urbana e o respectivo modo de funcionamento e organização, nomeadamente, no que se refere aos centros urbanos de média dimensão, emerge como uma infra-estrutura fundamental à sustentabilidade e ao dinamismo económico da respectiva região. Na perspectiva do desenvolvimento territorial, e no caso do Alentejo, esta tendência pesada faz destacar o papel a atribuir aos centros urbanos mais dinâmicos e com maior potencial, em termos sociais e económicos. Para além das cidades, também as grandes infra-estruturas de localização e de conectividade internacional oferecem condições vantajosas para a promoção de dinâmicas de crescimento de base territorial. [III. Diagnóstico Prospectivo Regional, Diagnóstico Regional do PROTA, pp. 15] ■ Potencialidades Estratégicas: (...) 2. Uma	■ Desafios: (...) 6. Para assegurar a sustentabilidade dos espaços de baixa densidade é necessário reflectir o papel da rede de pequenos centros urbanos na prestação de serviços de proximidade. É necessário dotar os territórios de condições que lhes permitam assegurar a multifuncionalidade territorial – pluriactividade do território e da população – através da disponibilidade de TIC, da melhoria das condições de mobilidade aos bens e serviços (este desafio coloca-se sobretudo para a população idosa e isolada, mas pode ser ultrapassado com um reforço dos serviços móveis). [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo de Povoamento, Diagnóstico Regional do PROTA, pp. 70-71] ■ Melhoria da qualidade de vida nas Zonas Rurais: Fomentar de uma forma sustentável a competitividade dos territórios de baixa densidade através da dinamização e diversificação de actividades económicas (bens e serviços), inovadoras e alicerçadas na valorização de recursos endógenos; e contribuir para a melhoria das condições de vida das populações rurais. [Relatório Complementar do PROTA, p. 8] ■ Implementação da Estratégia Nacional para Efluentes Agro-pecuários e Agro-industriais: Soluções adequadas de saneamento na baixa densidade e inovadoras na gestão de águas residuais industriais e agro-industriais, destacando as de carácter colectivo. [Relatório Complementar do PROTA, p. 16] ■ Net-serviços: Alargamento da gama de oferta de serviços colectivos e de interesse público de proximidade ao cidadão, suportados na Internet e na utilização das TIC, nos domínios da saúde, educação, serviços sociais, cultura e administração, garantindo o acesso das populações nos espaços de baixa densidade. [Relatório Complementar do PROTA, p. 20] ■ Densidade Populacional. [Relatório Complementar do PROTA, p. 27] ■ Visão: A região do Alentejo afirma-se como território sustentável e de forte identidade regional, sustentada por um sistema urbano policêntrico, garantindo adequados níveis de coesão territorial e afirmando uma reforçada integração com outros espaços nacionais e internacionais, valorizando o seu posicionamento geoestratégico. Enquanto

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estrutura de povoamento concentrada, facilitadora do ordenamento territorial e da dotação de infra-estruturas e equipamentos. Os centros urbanos proporcionam uma qualidade de vida às populações residentes, fruto de uma razoável oferta de equipamentos e de infra-estruturas básicas, e de uma elevada segurança. Por outro lado, a população ainda residente fora dos centros urbanos é fundamental na sustentabilidade dos territórios de baixa densidade. Esta polifuncionalidade do território assenta numa rede polinucleada relativamente bem distribuída onde as sedes de concelho são os nós estruturantes. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo de Povoamento, Diagnóstico Regional do PROTA, p. 66] ■ Factores de Estrangulamento: 1. Nas últimas décadas a região sofreu uma significativa redução de população, tendo-se registado, neste período, um reforço demográfico dos principais centros urbanos e uma redução da densidade populacional numa vasta área territorial fruto do despovoamento quase generalizado. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo de Povoamento, Diagnóstico Regional do PROTA, pp. 66-67] ■ O despovoamento de espaços de baixa densidade, o incremento dos níveis de urbanização acompanhado por um claro crescimento das funções económicas desempenhadas pelas cidades e, ainda, a emergência de novas dinâmicas nas relações urbano-rural, constituem um quadro de novas tendências na organização do território regional com importância determinante para a estratégia e, consequentemente, para o modelo territorial que se propõe para a região. [II.2 Os Desafios do Ordenamento Territorial no Alentejo, Relatório Fundamental do PROTA, p. 16] ■ A baixa densidade demográfica e o modelo de povoamento concentrado - grandes aldeias, vilas e cidades, espaçadas e regularmente distribuídas no território – imprimem também um forte carácter à sua paisagem. [IV.1 Modelo Territorial Regional, IV. MODELO E SISTEMAS TERRITORIAIS, Relatório Fundamental do PROTA, p. 39] ■ Um segundo aspecto que é sublinhado e valorizado pelo Modelo Territorial diz respeito ao papel dos centros urbanos e, principalmente, dos centros urbanos de dimensão regional – os Centros Urbanos Regionais – como espaços determinantes do desenvolvimento económico regional, da coesão territorial e da sustentabilidade económica e social das zonas rurais de mais baixa densidade. O desenvolvimento económico e urbano deve, com	espaço de baixa densidade aposta em nichos de oportunidade ligados a actividades emergentes potenciadores dos seus activos naturais e patrimoniais. A sustentabilidade territorial assenta na valorização dos recursos endógenos, designadamente, dos valores naturais e paisagísticos e no desenvolvimento de níveis acrescidos de concertação estratégica e cooperação funcional, capazes de gerar novas oportunidades e responder eficazmente aos potenciais riscos ambientais e sociais. [II.3 Visão e Desígnios Regionais, Relatório Fundamental do PROTA, p. 17] ■ Por outro lado, há que discriminar positivamente as sedes de concelho localizadas nos territórios de mais baixa densidade, de forma a garantir níveis de sustentabilidade social. Não estando garantida uma mobilidade sustentável, os centros urbanos (sedes de concelho) localizados nos territórios mais periféricos devem ser dotados de equipamentos e serviços capazes de garantir a coesão e a competitividade social e económica. [III.4 Afirmção do Policentrismo e do Desenvolvimento Rural, Relatório Fundamental do PROTA, p. 36] ■ Rentabilizar recursos e afirmar especializações sub-regionais é crucial para a sustentabilidade dos territórios de baixa densidade. [III.4 Afirmção do Policentrismo e do Desenvolvimento Rural, Relatório Fundamental do PROTA, p. 36] ■ A afirmação de um sistema urbano policêntrico deve obrigatoriamente alicerçar-se num sistema de transportes eficiente, que propicie a afirmação de relações de complementaridade entre centros urbanos. Com efeito, a realidade demográfica e o sistema de povoamento da Região justificam, por outro lado, uma abordagem específica da problemática da mobilidade em áreas de baixa densidade populacional, sendo premente a materialização de soluções inovadoras e flexíveis assentes em parcerias diferenciadas, as quais deverão ser ajustadas a cada situação concreta. É necessário fornecer soluções conjuntas de transporte local para as áreas rurais, fazendo um melhor uso da articulação entre automóveis, autocarros, comboios e outras modalidades de transporte em proveito das comunidades locais. [III.4 Afirmção do Policentrismo e do Desenvolvimento Rural, Relatório Fundamental do PROTA, p. 37] ■ Nos territórios de baixa densidade é necessário modernizar os serviços rurais,

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efeito, ser suportado pelo desenvolvimento dos centros urbanos e redes urbanas regionais, ultrapassando por esta via os constrangimentos das baixas densidades e constituindo economias de aglomeração e realidades urbanas com a dimensão económica e institucional necessária à emergência de contextos favoráveis à inovação social e empresarial. [IV.1 Modelo Territorial Regional, IV. MODELO E SISTEMAS TERRITORIAIS, Relatório Fundamental do PROTA, pp. 39-40] ■ Ainda nesta perspectiva, o Modelo Territorial também destaca a função dos centros urbanos locais – sedes concelhias – no suporte da coesão territorial e na constituição de pólos de desenvolvimento social e de actividades económicas de âmbito local (actividades económicas em espaços de baixa densidade) e de pequenas economias de natureza residencial. [IV.1 Modelo Territorial Regional, IV. MODELO E SISTEMAS TERRITORIAIS, Relatório Fundamental do PROTA, p. 40] ■ Com efeito, o litoral alentejano apresenta uma elevada concentração de recursos e valores naturais e culturais, baixa densidade populacional e amenidade climática com elevado potencial para o regadio. Relatório Fundamental do PROTA, [IV.1 Modelo Territorial Regional, IV. MODELO E SISTEMAS TERRITORIAIS, Relatório Fundamental do PROTA, p. 41] ■ A estrutura urbana regional enquadra-se num território rural extenso e de fraca densidade de ocupação social e económica, constituindo o sistema fundamental de organização territorial e de sustentação da coesão territorial. [IV.4.A Corredores e polaridades regionais, IV.4 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 75] ■ Para a consolidação do Sistema urbano e de suporte à coesão territorial concorrem ainda um conjunto de pequenos Centros Urbanos Complementares (CUC), sedes de concelho, fundamentais para a sustentação dos territórios de baixa densidade e para a afirmação das relações urbano-rurais. [IV.4.B Tipologia de centros urbanos, IV.4 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 76]	utilizando as novas tecnologias, proporcionando os benefícios e as oportunidades da era digital às áreas rurais – educação ao longo da vida, possibilidades de formação especializada, procura de emprego, saúde e outros serviços públicos. [III.4 Afirmação do Policentrismo e do Desenvolvimento Rural, Relatório Fundamental do PROTA, p. 38] ■ b) Assegurar que constituem nós fundamentais de sustentação sócio-rural para os territórios de baixa densidade; [IV.4.C Subsistemas urbanos, IV.4 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 77] ■ c) Fixar alguns serviços públicos de nível supra-municipal segundo uma lógica de concertação interurbana, sobretudo nos territórios de baixa densidade demográfica; d) Garantir que os centros urbanos sedes de concelho possuem um leque de serviços necessários e fundamentais para a qualidade de vida dos residentes e para a sustentabilidade territorial dos territórios de baixa densidade; [IV.4.C Subsistemas urbanos, IV.4 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 77] ■ d) Dada a dimensão territorial da região e os fracos níveis de acessibilidade e mobilidade, deve ser acautelada a igualdade no acesso aos equipamentos e serviços. Neste sentido, por um lado, devem-se assegurar níveis de mobilidade de pessoas e bens, designadamente nos territórios de baixa densidade, e, por outro lado, os serviços devem-se organizar em função do tipo de mobilidade a incrementar, ou seja, identificando se deve ser o serviço que se desloca ao utente ou se é o utente que se desloca ao serviço. [V.3.A Normas gerais, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 108] ■ e) Utilizar as infra-estruturas de informação e comunicação para melhorar a qualidade da aprendizagem e sustentar as redes e programas de cooperação inter-escolas, sobretudo nos territórios menos acessíveis e com uma menor densidade. [V.3.A Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 112] ■ g) Articular a oferta multi-serviços (saúde, educação, formação profissional, e apoio social) nos territórios de baixa densidade e promover acções que visem a melhoria da qualidade de vida das populações sobretudo

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	com especial atenção para as mais carenciadas (conforto habitacional, sociabilidade nos espaços-internet, etc.). [V.3.A Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 112] ■ 10. Deve-se intensificar a integração no Sistema Nacional de Saúde de novas tecnologias de informação e comunicação (TIC), em particular na telemedicina de uso pelo cidadão e pelo profissional de saúde, pois contribui para uma gestão da saúde integrada no utente, centrada no cidadão e respondendo às necessidades reais. Nos territórios de muito baixa densidade é mais urgente a aplicação desta medida. [V.3.A Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 114] ■ 11. Competirá à Administração Central em colaboração ou em parceria com a Administração Local: (...) b) A realidade rural, e mais concretamente a interioridade e o isolamento, exigem respostas adequadas dos serviços de saúde primários, numa lógica de proximidade. Nas áreas de muito baixa densidade e de grande isolamento, a prestação de cuidados de saúde primários deve ser equacionada em parceria intersectorial e/ou entre a administração central e local, numa lógica de unidades multi-serviços de proximidade, que poderão oferecer serviços nas áreas da saúde, educação e apoio social. [V.3.A Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 114] ■ c) Garantir o funcionamento dos sistemas de saneamento de águas residuais urbanas com elevados padrões de qualidade: i) Promover soluções adequadas para o abastecimento de água e tratamento de águas residuais, tendo em conta a densidade populacional e dispersão da população (grande número de aglomerados populacionais com menos de 500 habitantes); [V.3.A Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 119] ■ d) O apoio a soluções flexíveis de transporte adaptadas à especificidade do território regional, nomeadamente no que se refere às áreas de baixa densidade populacional, permitindo um adequado equilíbrio entre o urbano e o rural, [V.4.B Normas específicas, V.4 Sistema de Acessibilidades e de Conectividade Internacional, Relatório Fundamental do PROTA, p. 132]

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	■ MOBILIDADE: 5. No que se refere à mobilidade em áreas de baixa densidade, a administração pública deverá: a) Melhorar a oferta de serviços de transporte público, de forma a permitir o acesso da população rural aos serviços básicos em condições de igualdade, e para facilitar o acesso dos serviços às colectividades sociais que pela idade ou condicionalismos físicos os requisitam, b) Melhorar a conectividade entre os núcleos de população em meio rural e destes com as áreas urbanas, através da coordenação e planificação das infra-estruturas de transporte e a melhoria da rede viária rural, com o objectivo de garantir condições de utilização e segurança adequada, c) Salvarguardar a especificidade da mobilidade nestas áreas delineando metodologias de trabalho e estratégias integradas que envolvam também abordagens à dotação de infra-estruturas, equipamentos e serviços, nomeadamente soluções de acesso descentralizado a serviços essenciais para as populações (saúde, educação, serviços de âmbito municipal, etc.), d) Actuar proactivamente em relação às variáveis com repercussão na mobilidade, adoptando estratégias no sentido de prevenir os fenómenos de dispersão do povoamento, qualificar a expansão urbana e promover lógicas de aglomeração, cooperação e complementaridade, e) Tirar partido do contributo que as TIC podem ter na redução das necessidades de deslocação. 6. A administração central, por seu lado, deverá reforçar, no âmbito das competências de contratação de redes e serviços de transportes públicos, o enquadramento legal favorável à emergência de soluções de transporte abrangentes, flexíveis e inovadoras nas áreas rurais de baixa densidade populacional, estimulando parcerias (pública, privada ou mista), ampliando os efeitos de soluções de sucesso já em funcionamento e prevendo formas de exploração mais adaptadas por parte dos operadores de transporte (p. ex. envolvendo táxis colectivos ou táxis-bus). [V.4.B Normas específicas, V.4 Sistema de Acessibilidades e de Conectividade Internacional, Relatório Fundamental do PROTA, pp. 132-133]

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Potencialidades Estratégicas: 6. ESTRUTURA DE POVOAMENTO URBANO INDUTORA DE UMA SUSTENTABILIDADE AMBIENTAL - Uma estrutura de povoamento concentrada, facilitadora do ordenamento territorial e da dotação de infra-estruturas e equipamentos, revela-se fundamental na sustentabilidade dos territórios de baixa densidade. [III. Diagnóstico Prospectivo Regional, Diagnóstico Regional do PROTA, p. 11]	no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
PIB per capita em PPC [Relatório Complementar do PROTA, p. 24]	no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	Parcerias intra-urbanas para a Regeneração Urbana: Constituição de parcerias intra-urbanas para o desenvolvimento de programas integrados de regeneração urbana, que valorizem o património, a base económica e promovam a qualidade de vida. [Relatório Complementar do PROTA, p. 12]

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	- São apresentadas diversas indicações no sentido da concretização de medidas tendo em vista a implementação da política de cidades e o reforço do acesso das populações mais carenciadas à habitação, através de acções de valorização dos recursos do território. [I.4 Enquadramento Estratégico Nacional e Regional, Relatório Fundamental do PROTA, p. 12] - Assim, é essencial manter e desenvolver as comunidades locais e garantir o acesso equitativo aos serviços para os que vivem e trabalham em áreas rurais (reter serviços, utilizar as TIC, organizar transportes, melhorar a acessibilidade à habitação). [III.4 Afirmção do Policentrismo e do Desenvolvimento Rural, Relatório Fundamental do PROTA, p. 36] 20. A Administração Local, em colaboração e com o apoio da Administração Central, deve preservar a função residencial e conceber um tecido urbano integrador em termos sociais: a) Definir uma política municipal de habitação, em sede do PDM ou eventualmente recorrendo à concepção de um Programa Local de Habitação enquanto instrumento estratégico para a definição de programas na área habitacional, em articulação com outras políticas de desenvolvimento social e económico. As disposições contidas nestes programas ganharão eficácia se devidamente integradas noutros instrumentos de planeamento territorial, designadamente PP ou PU, garantindo um compromisso recíproco de articulação. Os problemas de habitação devem ser especificados em função das diversidades territoriais locais, incluindo

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	nomeadamente a problemática das áreas rurais ou das áreas de forte atratividade para a segunda residência. ■ b) De forma a atenuar progressivamente carências habitacionais observadas a nível municipal, a administração local poderá definir a afectação de quotas de habitação a custos controlados nas novas urbanizações a garantir pelos promotores privados. Um Programa Local de Habitação ou a regulamentação dos PMOTs podem ser instrumentos de previsão de quotas mínimas de habitação acessível a estratos sociais com menores recursos, atendendo às diferentes realidades territoriais. ■ c) Dados os valores patrimoniais em presença, deve-se fomentar a reabilitação do parque edificado existente, estabelecendo medidas de discriminação positiva para a reabilitação dos tecidos habitacionais existentes, promovendo acções de regeneração urbana e dando prioridade à intervenção e requalificação dos espaços públicos em áreas consolidadas, em prole de um reforço da qualidade residencial. ■ d) Facilitar o acesso das famílias jovens a alojamentos a preços razoáveis (aquisição ou auto-construção de habitação a custos limitados). [V.3.B Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 117] ■ Planos de Valorização e Salvaguarda dos Aglomerados Urbanos: Elaboração de Planos para valorização e salvaguarda de aglomerados urbanos, nomeadamente os assinalados no PROT como de relevância patrimonial. [Relatório Complementar do PROTA, p. 15] ■ Reabilitação e Revitalização dos Aglomerados Urbanos com Valor Patrimonial: Implementação de medidas e acções que promovam a regeneração urbana dos aglomerados de interesse patrimonial e turístico. [Relatório Complementar do PROTA, p. 15]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ O sistema urbano é constituído por um grande número de centros de pequena dimensão económica e social, com áreas urbanas que estão num processo de regressão demográfica. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo de Povoamento, Diagnóstico Regional do PROTA, p. 67] ■ Tendências Pesadas: 1. Concentração populacional nos aglomerados urbanos de maior dimensão, acompanhada por um despovoamento considerável das áreas rurais e dos lugares de menor dimensão. A desvitalização económica e social do espaço rural traduz-se no abandono, envelhecimento, desemprego, e implicitamente migração para espaços urbanos de pessoas e serviços. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo de Povoamento, Diagnóstico Regional do PROTA, p. 68]	■ Desafios: (...) 2. Reforçar e consolidar uma prática de cooperação territorial e de associação intermunicipal na promoção de políticas de desenvolvimento territorial, na oferta de equipamentos e serviços em função de subsistemas regionais ou do próprio sistema urbano regional. Esta cooperação garante uma maior racionalização dos recursos físicos e humanos e reforça a coesão social e territorial. Neste âmbito, devem merecer especial atenção as condições de acessibilidade e a oferta de transportes colectivos e o desenvolvimento de serviços móveis ou serviços suportados pelas TIC. [VIII. Diagnóstico Integrado do Domínio do Sistema Urbano e Modelo de Povoamento, Diagnóstico Regional do PROTA, p. 70] ■ Desígnios: 3. Uma região com adequados níveis de coesão territorial, sustentada pelo papel do sistema urbano regional como infra-estrutura privilegiada de suporte aos equilíbrios socioeconómicos internos, à sustentabilidade dos espaços rurais, a uma maior integração territorial regional e a uma mais elevada qualidade de vida e de bem-estar social; [II.3 Visão e Desígnios Regionais, Relatório Fundamental do PROTA, p. 17] ■ E aproveitar as sinergias criadas para valorizar os territórios rurais e consolidar o seu tecido económico e social. [III.3 Diversificação e Qualificação da Base Económica Regional, Relatório Fundamental do PROTA, p. 31] ■ A comunicação por via digital é hoje fundamental e incontornável na difusão alargada da informação e do conhecimento e é um imperativo na aproximação entre pessoas e organizações, pelo que a generalização do uso das TIC constitui uma prioridade estratégica para a modernização da sociedade, para o reforço da coesão social e territorial e para a promoção do exercício pleno da cidadania. [III.4 Afirmção do Policentrismo e do Desenvolvimento Rural, Relatório Fundamental do PROTA, p. 38] ■ a) Afirmar-se enquanto pólos nucleares do desenvolvimento da Região, onde os objectivos de competitividade e coesão regional são ancorados, o que significa que compete a estes aglomerados liderar e disseminar processos de inovação regional e de inclusão social. b) Desenvolver redes de

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	forte articulação com os níveis hierárquicos superiores e/ou inferiores, contribuindo para uma forte coesão do conjunto urbano; c) Desempenhar funções de articulação regional, liderar processos de inovação e desenvolvimento económico e dinamizar redes urbanas de afirmação externa; d) Impulsionar redes multifuncionais e/ou temáticas (cidades patrimoniais, cidades inteligentes, cidades turísticas, cidades desportivas, entre outras), como factores de integração e motivação de desenvolvimento e qualificação urbana das cidades participantes, sem que a proximidade ou a contiguidade entre elas sejam requisitos necessários; e) Fomentar o inter-relacionamento institucional, com a participação dos diferentes agentes sociais e económicos, públicos e privados. [IV.4.B Tipologia de centros urbanos, IV.4 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 76] ■ 1. A consolidação de um modelo policêntrico de organização do Sistema Urbano Regional como base para a melhoria da competitividade regional e da qualidade de vida, passa por: (...) c) Garantir que os subsistemas urbanos regionais são as bases de sustentação da coesão social e da melhoria da qualidade de vida dos residentes, contribuindo para o desenvolvimento de comunidades sustentáveis. [V.3.A Normas gerais, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 108] ■ 2. De acordo com as particularidades territoriais, as políticas sectoriais e o respectivo planeamento regional dos equipamentos e serviços devem passar por: (...) b) Uma rede de equipamentos e serviços que responda às necessidades de uma estrutura social envelhecida e com poucos recursos e às dinâmicas demográficas, sociais e económicas de alguns aglomerados. [V.3.A Normas gerais, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 108] ■ d) Qualificar o subsistema urbano do Baixo Alentejo, de forma a: (...) iv) Concertar, eventualmente, uma estratégia de complementaridade em termos de serviços públicos, Alvito - Cuba - Vidigueira dada a fraca dimensão social e económica dos aglomerados, de forma a criar uma massa crítica urbana fundamental para estratégias urbanas mais ambiciosas. [V.3.B Normas específicas, V.3 Sistema Urbano e de

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	Suporte à Coesão Territorial, Relatório Fundamental do PROTA, pp. 111-112] ■ Apoio Social: 4. Para a territorialização da política pública de segurança social competirá à Administração Central, à Administração Local e/ou a outras instituições públicas ou privadas: a) Conceber os Planos de Desenvolvimento Social a nível regional e/ou sub-regional, NUTS III, que façam um diagnóstico e definam uma estratégia regional, atendendo às prioridades definidas na política nacional, à melhora articulação inter-sectorial (entre diferentes Ministérios) e inter-institucional, de acordo com as necessidades sociais e territoriais. b) Criar novos lugares em creches e em valências e equipamentos de apoio aos idosos, justificadas pelas necessidades de apoio às populações infantis e pelo continuado envelhecimento demográfico da população da região. c) Promover a instalação de equipamentos supra-municipais ao nível da deficiência e saúde mental, dadas as insuficiências na resposta social a nível regional. d) Equacionar respostas a nível regional para os problemas sociais associados às minorias étnicas e à população imigrante que, embora registem uma incidência localizada, exigem uma intervenção que extravasa o âmbito geográfico municipal. e) Considerar as necessidades particulares dos cidadãos em meio rural na definição e aplicação de políticas e medidas de apoio social, adequando os programas sociais de forma a garantir a sua aplicabilidade. f) Concluir a rede de cuidados continuados, numa abordagem intersectorial, segurança social e serviços de saúde, na qual as unidades de convalescença se instalam junto dos hospitais e as unidades de média e longa duração se encontram mais disseminadas pelo território. g) Articular a oferta multi-serviços (saúde, educação, formação profissional, e apoio social) nos territórios de baixa densidade e promover acções que visem a melhoria da qualidade de vida das populações sobretudo com especial atenção para as mais carenciadas (conforto habitacional, sociabilidade nos espaços-internet, etc.). [V.3.B Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 112] ■ d) Os serviços de natureza social, em especial os que atraem um elevado número de pessoas de origens geográficas variadas (escolas, hospitais, tribunais, etc.) devem ser definidos em sede de PMOT,

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	nomeadamente, em PDM e PP, ter uma localização central ou favorecer a qualificação e consolidação de espaços pericentrais ou periféricos, permitindo sempre um acesso generalizado por transporte público e uma ligação fácil para quem circule a pé; e) Os estabelecimentos de serviços de natureza económica, em especial os mais vocacionados ao serviço às empresas, de acordo com a sua dimensão e natureza, devem articular-se com o comércio no reforço de centralidades já existentes, contribuir para a valorização urbanística de espaços a consolidar, favorecer a diversificação funcional e a proximidade a áreas residenciais mais densas e favorecer uma acessibilidade por transporte público ou a pé. [V.3.B Normas específicas, V.3 Sistema Urbano e de Suporte à Coesão Territorial, Relatório Fundamental do PROTA, p. 118]

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Taxa de Criminalidade contra a integridade física [Relatório Complementar do PROTA, p. 30]	no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ no statements found	■ no statements found

MUNICIPALITY:	Alentejo
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 28/2006 de 23 de Março – Plano Regional de Ordenamento do Território do Alentejo Declaração de Rectificação n.º 28-A/2006 de 19 de Maio – Plano Regional de Ordenamento do Território do Alentejo (PROTA) Diagnóstico Regional do PROTA de Novembro 2007 Relatório Fundamental do PROTA (Proposta para discussão pública) de Março 2009 Relatório Complementar do PROTA (Proposta para discussão pública) de Março 2009

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Em termos gerais, esta área estrutura-se: numa área central que engloba as áreas históricas do centro, onde existem áreas com graves problemas de desertificação populacional e de decadência comercial; nos espaços de importância histórico-cultural de Ajuda e Belém; nos grandes eixos de crescimento inicial da cidade, onde se localizam importantes manchas de terciário; em áreas pontuais e eixos desqualificados e degradados, designadamente associados a bairros históricos, áreas industriais e de armazenagem em decadência e áreas de habitação social; numa faixa envolvente mais recente, desenvolvida em torno da 2.^a circular, prolongada pelo eixo N/S, onde se registaram e continuam a registar fenómenos de densificação acelerada. [PROT-AML, Volume 1, 2 Unidades Territoriais, p. 44/ RCM nº 68/2002] ■ Nos anos oitenta a capacidade de atracção diminuiu bastante, o que associado ao declínio das taxas de natalidade e fecundidade fez abrandar o ritmo de crescimento populacional. Mesmo assim, nesta década a AML ainda cresceu a um ritmo superior ao do País e ao da RLVT, reforçando o peso demográfico da AML. [PROT-AML, Volume 3, p. 7] ■ Em termos de comportamento interno, regista-se uma profunda reorganização da distribuição da população no território metropolitano. Desde logo, verificam-se situações distintas entre a AML Norte e a AML Sul, pois enquanto a primeira tem vindo a perder população, apresentando decréscimos de -0.9% entre 1981 e 1991, e -0.1% entre 1991 e 1997, a segunda manteve a tendência de crescimento populacional (...). Relativamente à AML Norte, o fenómeno de decréscimo populacional é principalmente justificado pela evolução demográfica do concelho de Lisboa, já que se verificou um decréscimo de 144 543 habitantes entre 1981 e 1991 (-17.9%) e se estima um decréscimo de 109344 habitantes entre 1991 e 1997 (-16.5%). Com excepção do concelho de Lisboa, no período de 1991 a 1997, todos os outros concelhos da AML Norte registam ganhos populacionais, tendo Mafra e Azambuja invertido a situação de perda populacional que se verificou na década de oitenta. [PROT-AML, Volume 3, p. 7] ■ Estima-se que, entre 1991 e 1997, a população com 14 ou menos anos terá decrescido 12.2% e a população com 65 ou mais anos terá aumentado 18.4%, pelo que em 1997 deveriam residir na AML 402 120 indivíduos com 14 ou menos anos (15.7% da população total) e 370	■ Para alcançar este objectivo, dando corpo às condições definidas na visão estratégica para a Região de Lisboa e Vale do Tejo (RLVT), assumem-se como linhas estratégicas de desenvolvimento para a AML: 1) Afirmar Lisboa como região de excelência para residir, trabalhar e visitar, apostando na qualificação social, territorial, urbana e ambiental da área metropolitana; [RCM nº 68/2002, II — Opções estratégicas, 1 — Visão estratégica] ■ 2.10. PROTECÇÃO CIVIL c) a distribuição da população e suas actividades (emprego, residência, etc.) deve ser planeada de forma a não proporcionar grandes desequilíbrios demográficos, nem locais de grande concentração de pessoas; [PROT-AML, Volume 1, 2 Normas Específicas, p. 120/ RCM nº 68/2002] ■ Neste sentido, assumem-se como localizações preferenciais para a criação de pólos de ensino politécnico o concelho do Barreiro, procurando satisfazer as necessidades existentes de qualificação e estancar a saída de população do concelho, e o concelho do Seixal, que apresenta muita população jovem. [PROT-AML, Volume 3, p. 48] ■ 3.4. Área Urbana Crítica a Conter e Qualificar 3.4.1. Os Instrumentos de Planeamento Territorial: a) devem demonstrar a necessidade urbanística (em resultado das dinâmicas da população e das actividades) de acréscimos de áreas urbanizáveis, superiores a 10% da área efectivamente urbanizada e concretizada desde a sua entrada em vigor até ao início do processo de revisão; b) devem avaliar o grau de concretização das propostas contidas no Plano em vigor, garantindo que os acréscimos da área urbanizável só deverão ser admitidos, se já estiverem concretizadas áreas superiores a 80% da área urbanizável inicialmente prevista; c) podem apresentar como excepção às alíneas anteriores, as áreas não previstas em Instrumentos de Planeamento Territorial em vigor necessárias a: • novos equipamentos colectivos estruturantes supramunicipais; • novas infra-estruturas e interfaces de transportes; • áreas integradas ou a integrar na Estrutura Ecológica Municipal. d) podem propor a reconfiguração do perímetro urbano, desde que: • resulte da redistribuição de áreas urbanizáveis

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300 com 65 ou mais anos (14.4% da população total). (...) estima-se, já na década de noventa, um ligeiro envelhecimento da população activa. [PROT-AML, Volume 3, p. 12] ■ Comparativamente, destaca-se a AML Norte que apresenta uma população mais envelhecida do que a AML Sul, tal como se pode verificar, por um lado, pelos valores mais elevados da percentagem de idosos e dos índices de envelhecimento e de dependência de idosos e, por outro lado, pelos valores menos significativos da percentagem de jovens e do índice dependência de jovens. Contudo, a AML Sul apresenta uma estrutura etária um pouco mais envelhecida do que a AML Norte sem o concelho de Lisboa. [PROT-AML, Volume 3, pp. 12-13] ■ No interior da AML existem diferenças assinaláveis, bem comprovadas pelos indicadores relativos ao envelhecimento em anexo, sendo de destacar os concelhos de Lisboa e do Seixal. O primeiro regista um elevado grau de envelhecimento da sua população, apresentando em 1991 e 1997 níveis de envelhecimento, na base e no topo, extremamente elevados e muito superiores aos observados na AML e no País. O segundo apresenta um envelhecimento muito pouco significativo da população, com níveis de envelhecimento bastante inferiores à AML e ao País, sendo de salientar que corresponde ao único concelho em que a percentagem de idosos não ultrapassa os 10%, em 1997. [PROT-AML, Volume 3, p. 13] ■ Pelo contrário, na cidade de Lisboa e nos concelhos mais distantes da capital – ainda com feições rurais bastante marcadas – tende a aumentar a proporção da população idosa, provocando, nomeadamente, o aumento da procura de serviços de apoio à terceira idade. [PROT-AML, Volume 3, p. 13] ■ Pelo contrário, os concelhos de Azambuja, Barreiro, Lisboa e Alcochete apresentam menores taxas de natalidade. [PROT-AML, Volume 3, p. 14] ■ O modelo de projecção utilizado assume o progressivo envelhecimento da população metropolitana, que deverá passar de 13,8% de indivíduos com 65 e mais anos em 1995 para 17,5% em 2010. (...) Em termos de emigrantes, verifica-se uma concentração ainda superior na AML Norte (mais de 80%), para a qual contribuiu significativamente a saída em “massa” de população da cidade de Lisboa. [PROT-AML, Volume 3, p. 20] ■ O modelo de projecção assume a inversão da tendência de decréscimo da população jovem, em especial a partir de 2005, considerando a	previstas no PDM inicial, sem acréscimo global da área urbanizável e da superfície de construção; • resulte da integração de áreas não urbanizáveis na Estrutura Ecológica Municipal; • salvaguarde os princípios de ordenamento do território e os valores naturais ainda existentes; [PROT-AML, Volume 3, p. 123]

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redução gradual da mortalidade infantil em Portugal e o aumento da fecundidade a partir de 1997 (1.5 em 1997) e que é hoje superior a outros países mediterrânicos (actualmente da ordem de 1.2 a 1.3) e que se assume continuar a subir até 2010 (até 1.612 no período 2006-2010), embora acompanhado do aumento da idade média das mães. Mesmo assim, não se atingirá o nível de substituição das gerações (2.1 crianças por mulher). [PROT-AML, Volume 3, p. 21] ■ A evolução do concelho de Lisboa – negativa até 2000, seguida de oscilações até 2010, terminando em perda devido ao elevado saldo natural negativo – poderá ser alterada, designadamente em função dos programas de habitação social em Lisboa, da evolução do papel da Cidade de Lisboa na AML e da evolução socioeconómica e urbanística da própria AML. Do modelo resulta que, não apenas o concelho de Lisboa, mas também Barreiro, Almada e Azambuja serão concelhos em perda demográfica até 2010. A tendência actual observada no Barreiro só deverá ser efectivamente alterada após a reconversão total da área da Quimiparque, bem como com a introdução de novas condições de acessibilidade, seja a travessia do Tejo, seja o Metro do Sul do Tejo (MST), seja ainda a ligação ferroviária Fogueteiro-Pinhal Novo. [PROT-AML, Volume 3, p. 22] ■ No que respeita ao padrão de ocupação do território, analisado através da densidade populacional em 2001 e da evolução da população na última década, é possível constatar as seguintes tendências: • Perda populacional do centro da AML paralelamente com fortes crescimentos noutras áreas da Área Metropolitana de Lisboa, principalmente nos seus concelhos limítrofes (Mafra, Vila Franca de Xira, Azambuja, Sesimbra, Setúbal, Montijo, Alcochete). Assiste-se ao fenómeno denominado de suburbanização ou periurbanização, caracterizado essencialmente por: aumento populacional nas periferias, nomeadamente em áreas próximas das vias de acesso ao centro, superior ao do centro; existência de fortes movimentos pendulares em direcção ao centro, na medida em que o crescimento das actividades económicas na periferia não acompanha o forte crescimento populacional. [PROT-AML, Volume 3, pp. 26, 28] ■ Ainda relativamente à população que abandonou o território metropolitano, e de acordo com as Estatísticas Demográficas, por NUT III, de 1995 a 1997 (única informação disponível), é de referir que cessaram residência, no conjunto da Grande Lisboa e da Península de Setúbal, 1837 estrangeiros, correspondendo a cerca de 25% dos estrangeiros que cessaram residência no	

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País, e na sua maioria população dos Países Lusófonos (vide quadro 1.17 e 1.19 em anexos). [PROT-AML, Volume 3, p. 16] ■ Assim, verificam-se situações distintas entre a AML Norte e a AML Sul, com a primeira a sofrer uma perda de população, apresentando decréscimos de (-0.1%) entre 1991 e 1997, e a segunda a manter a tendência de crescimento populacional, com variações de (4.2%) entre 1991 e 1997. [PROT-AML, Volume 3, p. 43] ■ Os movimentos migratórios, quer internos quer externos, são de difícil previsão. Anteviu-se uma estabilização futura, com manutenção para Lisboa e Vale do Tejo de um valor positivo de 23 585 por quinquénio. Esta tendência tanto poderá corresponder a uma estabilização dos fluxos como a um declínio, em ritmo semelhante, das entradas e das saídas. [PROT-AML, Volume 3, p. 193] ■ Tal requalificação da oferta pode também revelar-se importante para a fixação da população e para a consolidação do sistema urbano, contribuindo, nomeadamente, para o reforço de alguns pólos no interior da AML. Além disso, a requalificação da oferta irá permitir o alargamento e diversificação das oportunidades de trabalho e consequente reordenamento dos centros de emprego, designadamente terciário, na AML. [PROT-AML, Volume 3, p. 46] ■ Em termos gerais, esta área estrutura-se: numa área central que engloba as áreas históricas do centro, onde existem áreas com graves problemas de desertificação populacional e de decadência comercial; nos espaços de importância histórico-cultural de Ajuda e Belém; nos grandes eixos de crescimento inicial da cidade, onde se localizam importantes manchas de terciário; em áreas pontuais e eixos desqualificados e degradados, designadamente associados a bairros históricos, áreas industriais e de armazenagem em decadência e áreas de habitação social; numa faixa envolvente mais recente, desenvolvida em torno da 2.ª circular, prolongada pelo eixo N/S, onde se registaram e continuam a registar fenómenos de densificação acelerada. [PROT-AML, Volume 1, 2 Unidades Territoriais, 2. Lisboa Centro Metropolitano, p. 44/ RCM nº 68/2002]	

Sinking population density

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■ Ou seja, Lisboa, com uma densidade populacional aproximada de 800 Hab/Km², surge como a área metropolitana de menor densidade populacional das metrópoles com mais de um milhão de habitantes, existindo inclusivamente duas (Valladolid e Corunha) que apesar de possuírem menor população têm uma densidade populacional mais elevada. [PROT-AML, Volume 3, p. 6] ■ A análise da evolução dos valores das densidades populacionais da AML após 1991 revela uma relativa estabilidade, ou seja, à excepção do concelho de Lisboa que cedeu a primeira posição ao concelho da Amadora, todos os outros concelhos mantiveram as suas posições relativas. Assim, destacam-se apenas Amadora e Lisboa que continuam a ser os concelhos com maior densidade populacional (apesar de, como se referiu atrás, se terem tornado menos atractivos, em particular o concelho de Lisboa) (...) [PROT-AML, Volume 3, p. 11] ■ Por outro lado, as fracas densidades populacionais que se verificam em certos corredores podem ser consideradas uma consequência da falta de capacidade de resposta das redes de transporte colectivo de passageiros e o resultado de uma política que tem privilegiado a oferta de infra-estruturas rodoviárias com alguma desarticulação entre transporte colectivo e transporte individual. [PROT-AML, Volume 3, p. 132]	■ no statements found

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
1.2.1.12. No entanto, a actual estrutura das finanças locais induz a expansão urbana, em especial através de operações de loteamento urbano, pela importância que as receitas financeiras provenientes da cobrança da Taxa Municipal de Urbanização assumem para os Municípios, ainda que, a prazo, essas intervenções impliquem custos municipais para os quais não se antevêem recursos disponíveis (segundo o quadro actual de finanças locais). [PROT-AML, Volume 1, 1.2. Orientações Sectoriais, p. 88/ RCM nº 68/2002]	no statements found

Surplus of spaces and buildings

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■ Em relação às dinâmicas e tendências dominantes de mudança identificaram-se sete tipos de espaços: (...) Espaços problema — abrangem as áreas periféricas fragmentadas e desestruturadas com tendência para a desqualificação urbana e ambiental e que apresentam dificuldades, pela sua localização e dimensão territorial. De igual modo, abrangem as áreas centrais dos aglomerados urbanos da AML que se encontram em perda de população residente e de actividades, denotando um acentuado declínio urbano e fortes processos de degradação. Estes espaços correspondem a extensas áreas a reordenar e a revitalizar onde será difícil inverter tendências a curto prazo, e integram a área central de Lisboa, os espaços intersticiais entre os eixos Oeiras-Cascais e Amadora-Sintra, o arco Belas-Bucelas e áreas do interior da península de Setúbal ocupadas com loteamentos clandestinos; (...) Áreas com potencialidades de reconversão/renovação — são áreas marcadas por ocupações obsoletas ou em desactivação que tendem a ser reconvertidas ou renovadas. A sua posição na AML e a dimensão das áreas a renovar criam condições ao desenvolvimento de novas centralidades metropolitanas com a instalação de actividades dinâmicas e inovadoras. Integram estas áreas os antigos complexos industriais da Siderurgia, Quimigal (QUIMIPARQUE), LISNAVE e a zona oriental de Lisboa, em particular as novas áreas envolventes da Parque-Expo; [RCM nº 68/2002, II — Opções estratégicas, 5 — Estratégia territorial] ■ A opção por este último cenário conduziu a uma estratégia territorial para a AML que visa, antes de mais, revalorizar o seu núcleo principal, a cidade de Lisboa, afirmar o estuário do Tejo como espaço central da estrutura metropolitana, e corrigir desequilíbrios urbanísticos e sociais presentes na estrutura actual, sem prejuízo da exigência de salvaguarda dos valores naturais e das áreas protegidas. Esta opção procura contrariar, por um lado, o crescimento extensivo da estrutura metropolitana que se instalou nas fases de maior crescimento demográfico periférico, e, por outro, a tendência para a litoralização com a consequente valorização fundiária e densificação das áreas poente da AML e da orla costeira. (...) Neste sentido, a estratégia territorial visa quatro objectivos específicos: (...) Desenvolver a «Grande Lisboa», cidade das duas margens, ancorada na cidade de Lisboa; [RCM nº 68/2002, II — Opções estratégicas, 5	■ Finalmente a estratégia territorial para a AML deverá ter como instrumentos fundamentais de implementação um conjunto de programas integrados, apoiando-se, designadamente, nos «sistemas de execução» previstos no Decreto-Lei n.º 380/99, de 22 de Setembro: Ambiente: Valorização dos estuários do Tejo e Sado e das frentes de água; Saneamento ambiental; Estrutura metropolitana de protecção e valorização ambiental; Gestão da água; Acessibilidades: Sistema de transportes metropolitano — autoridade metropolitana de transportes; Porto de Lisboa/Setúbal; Novo aeroporto internacional; Redes transeuropeias na AML; Actividades/competitividade: Centros de I & D; Turismo, lazer, eventos; Saúde; Sistema logístico; Qualificação urbana: Requalificação urbanística de áreas suburbanas; Desenvolvimento de novas centralidades; Valorização do património e de áreas históricas; Revitalização da área central de Lisboa; Novos mecanismos de programação do solo urbano (Decreto-Lei n.º 380/99); Integração e coesão social: Habitação; Apoio a grupos de risco. [RCM nº 68/2002, II — Opções estratégicas, 5 — Estratégia territorial] ■ Note-se que a polinucleação proposta implica a descontinuidade das áreas urbanas, contrariando fenómenos de expansão difusa e fragmentada, com vista à melhoria do sistema urbano, à salvaguarda e valorização da rede ecológica metropolitana e, de um modo geral, à valorização paisagística e à sustentabilidade ambiental da AML. [RCM nº 68/2002, III — Esquema do modelo territorial, 1 — Esquema do modelo territorial — Esquema geral] ■ Neste contexto, assumem uma prioridade decisiva as ligações circulares (em torno do centro da AML), sobretudo as mais periféricas, que viabilizam a complementaridade funcional entre pólos (ou conjuntos de pólos). As ligações secundárias são assim consideradas por já disporem de infra-estruturas de acessibilidade adequadas e ou por serem menos decisivas à consolidação do modelo proposto que implica alterar a evolução tendencial observada. Não se trata, pois, de reduzir a importância destas ligações mas apenas de sublinhar a prioridade que deve ser dada às ligações principais para ser alcançada a alteração desejada da evolução tendencial. [RCM nº 68/2002, III — Esquema do modelo territorial, 1 — Esquema do modelo territorial — Esquema geral]

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— Estratégia territorial] ■ A passagem da situação actual, traduzida no diagrama das dinâmicas territoriais da AML, para a situação desejada, expressa no modelo territorial, implica um conjunto articulado de linhas de política territorial referentes aos diversos tipos de espaços, as quais se traduzem em: (...) 2) Apoiar e enquadrar o desenvolvimento dos espaços emergentes e as áreas com potencial de reconversão/renovação, para que cumpram funções de reestruturação e qualificação da AML; 3) Intervir nos espaços problema e nas áreas críticas urbanas com vista a conter as tendências de degradação e desqualificação, introduzir dinâmicas de reequilíbrio social e urbanístico e reforçar os mecanismos de coesão social; [RCM nº 68/2002, II — Opções estratégicas, 5 — Estratégia territorial] ■ Em termos gerais, esta área [Lisboa — centro metropolitano] estrutura-se: numa área central que engloba as áreas históricas do centro, onde existem áreas com graves problemas de desertificação populacional e de decadência comercial; (...); em áreas pontuais e eixos desqualificados e degradados, designadamente associados a bairros históricos, áreas industriais e de armazenagem em decadência e áreas de habitação social; (...). Nas áreas de fronteira com os principais eixos de crescimento urbano que dela irradiam ocorrem, ainda, lacunas e desarticulações de infra-estruturação, fenómenos de desqualificação do espaço urbano, designadamente a existência de núcleos de barracas e outro tipo de habitação degradada, em promiscuidade com unidades industriais e de armazenagem em declínio, abandonadas ou, de um modo geral, pouco cuidadas inseridas num espaço público não minimamente tratado. Os problemas de pobreza, exclusão ou, de alguma forma, de desqualificação social são nesta unidade particularmente graves, afectando cerca de 30% da população residente, agravados pela presença significativa de minorias étnicas residentes em bairros degradados. [RCM nº 68/2002, III — Esquema do modelo territorial, 2 — Unidades territoriais] ■ «Eixo Amadora-Sintra», também um eixo consolidado de crescimento organizado em torno da linha de caminho-de-ferro, teve na sua génese a resposta a procura de população com menor poder de compra e apresenta actualmente marcas expressivas da fraca estruturação da urbanização e baixos índices de qualidade da construção e do espaço público. Em algumas áreas pontuais, verifica-se já a necessidade de renovar o tecido edificado em resultado do elevado nível de degradação	■ Tanto os PMOT como a própria gestão urbanística municipal devem dispor de parâmetros urbanísticos estatísticos, continuamente actualizados, que permitam avaliar periodicamente a evolução do uso e ocupação do território municipal e metropolitano, designadamente quanto a áreas urbanas, áreas entretanto urbanizadas, variações populacionais e de fogos, e áreas de construção. [RCM nº 68/2002, III — Esquema do modelo territorial, 1 — Esquema do modelo territorial — Esquema geral] ■ Espaços Problema – abrangem as áreas periféricas fragmentadas e desestruturadas com tendência para a desqualificação urbana e ambiental e que apresentam dificuldades, pela sua localização e dimensão territorial. De igual modo, abrangem as áreas centrais dos aglomerados urbanos da AML que se encontram em perda de população residente e de actividades, denotando um acentuado declínio urbano e fortes processos de degradação. Estes espaços correspondem a extensas áreas a reordenar e a revitalizar onde será difícil inverter tendências a curto prazo, e integram a área central de Lisboa, os espaços intersticiais entre os eixos Oeiras-Cascais e Amadora-Sintra, o arco Belas-Bucelas, e áreas do interior da Península de Setúbal ocupadas com loteamentos clandestinos. [PROT-AML, Volume 1, 5 Estratégia Territorial, p. 26/ RCM nº 68/2002] ■ Nas áreas de fronteira com os principais eixos de crescimento urbano que dela irradiam ocorrem, ainda, lacunas e desarticulações de infra-estruturação, fenómenos de desqualificação do espaço urbano, designadamente a existência de núcleos de barracas e outro tipo de habitação degradada, em promiscuidade com unidades industriais e de armazenagem em declínio, abandonadas ou, de um modo geral, pouco cuidadas inseridas num espaço público não minimamente tratado. [PROT-AML, Volume 1, 2 Unidades Territoriais, p. 44/ RCM nº 68/2002] ■ "Eixo Amadora – Sintra" (...) Nalgumas áreas pontuais, verifica-se já a necessidade de renovar o tecido edificado em resultado do elevado nível de degradação de alguns bairros habitacionais de muito má qualidade de construção, bem como do declínio e abandono de instalações industriais. [PROT-AML, Volume 1, 2 Unidades Territoriais, p. 45/ RCM nº 68/2002] ■ 1.3.5. Arco Ribeirinho Sul [1.3.5.4. Reconverter as áreas industriais em declínio ou abandonadas, privilegiando a sua utilização

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de alguns bairros habitacionais de muito má qualidade de construção, bem como do declínio e abandono de instalações industriais. [RCM nº 68/2002, III — Esquema do modelo territorial, 2 — Unidades territoriais ▪ Fazendo o cruzamento dos dados “demográficos” com o efectivo habitacional, observa-se como tendência geral que a taxa de crescimento da habitação é muito superior, especialmente na AML Norte. [PROT-AML, Volume 3, p. 43] ▪ Alterações de natureza económica levaram ao declínio de muitas unidades industriais, assistindo-se a uma fase de reestruturação com a substituição da indústria por outras actividades industriais ou pela armazenagem – em determinadas áreas associada à logística - e a elevados índices de degradação da paisagem ligados ao abandono de unidades e à substituição desregrada de actividades. O aproveitamento desenquadrado de antigas áreas ocupadas por indústria para o desenvolvimento de urbanizações para fins habitacionais revela, também, índices de desqualificação resultantes da promiscuidade de usos e da falta de integração dos tecidos urbanos. [PROT-AML, Volume 1, 2 Unidades Territoriais, p. 46/ RCM nº 68/2002]	para serviços de apoio às actividades económicas e para a criação de espaço público. [PROT-AML, Volume 1, 1.3. Orientações Territoriais, p. 97/ RCM nº 68/2002] ▪ 3.2. Área Urbana a Articular e/ou Qualificar 3.2.1. Os Instrumentos de Planeamento Territorial devem: d) promover a realocização, reconversão ou modernização das áreas industriais em situação de declínio, abandono ou que causem problemas graves ao sistema urbano vizinho (nomeadamente poluição hídrica, atmosférica ou de outro tipo), privilegiando novos usos compatíveis com a proximidade habitacional, em particular os serviços de apoio às actividades económicas e a criação de espaço público. [PROT-AML, Volume 1, 3 Acções Urbanísticas, p. 122/ RCM nº 68/2002] ▪ 3.6. Área de Dispersão Urbana a Controlar 3.6.1. Os Instrumentos de Planeamento Territorial devem: a) definir mecanismos que impeçam a habitação dispersa e concentrem o alojamento, designadamente segundo padrões de habitação de baixa densidade, nas proximidades de núcleos urbanos ou rurais existentes, desencorajando o fraccionamento da propriedade, regulamentando o destaque para construção e definindo a dimensão mínima da parcela edificável por categoria de espaço; b) criar medidas que visem o ordenamento e estruturação do povoamento no espaço rural, a contenção da construção dispersa e o enquadramento e dinamização de actividades e usos compatíveis com as características do território e com as actividades agrícolas e florestais dominantes. [PROT-AML, Volume 1, 3 Acções Urbanísticas, p. 124/ RCM nº 68/2002]

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ A AML surge como o grande pólo de consumo da sociedade portuguesa, quer na dimensão quantitativa, integrando população e poder de compra, quer na dimensão qualitativa da difusão de modelos de consumo e de formas de distribuição, originando uma dinâmica relativamente completa de articulação entre economias de escala e de aglomeração, entre consumo de bens e de serviços e entre estratégias e comportamentos de custo e de qualidade. [PROT-AML, Volume 1, 2 Estratégia Económica, pp. 16-17/ RCM nº 68/2002] ■ (...) constata-se que em determinados concelhos, cujo índice de poder de compra é elevado, existem, por outro lado, áreas degradadas e fortemente desqualificadas, maioritariamente habitadas por populações desfavorecidas e por "grupos de risco". [PROT-AML, Volume 3, p. 92] ■ A AML apresentava, em 1995 e 1997, os mais elevados índices de poder de compra per capita, por concelhos, da RLVT e do Continente. Em 1995, na margem norte da AML, o concelho de Lisboa destacava-se claramente dos restantes com um índice de 314.09. [PROT-AML, Volume 3, p. 92] ■ Em 1997, apesar das alterações na construção deste índice, o concelho de Lisboa mantém a sua posição de destaque na margem norte, detendo o mais elevado índice de Poder de Compra (314.20) (...) [PROT-AML, Volume 3, p. 93] ■ Após uma breve análise do índice de poder de compra concelhio, parece importante dar conta das disparidades sociais existentes em determinados concelhos da AML, onde se denota, a par de um elevado índice de poder de compra, a existência de zonas social e urbanisticamente desqualificadas. Refira-se, a este propósito, alguns casos específicos. O concelho de Lisboa, como se referiu atrás, apresenta uma realidade territorial com debilidades sócio-urbanísticas: verifica-se a existência de bairros desqualificados nos quais residem cerca de 26% da população do concelho (143 700 habitantes em 89 bairros). De entre aqueles bairros, 28 são de barracas. No entanto, Lisboa detém o maior índice de poder de compra da AML, o que não deixa de contrastar com aquela realidade. [PROT-AML, Volume 3, p. 93]	■ no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	- A concretização destas linhas estratégicas assenta fundamentalmente nas seguintes medidas: (...) 5) Promoção habitacional enquadrada em planos de ordenamento e padrões construtivos qualificados, estimulando o repovoamento das áreas urbanas centrais; [RCM nº 68/2002, II — Opções estratégicas, 1 — Visão estratégica] - Programas de Diversificação e Qualificação do Mercado de Habitação (...) [PROT-AML, Volume 2, p. 20] - Programa Especial de Habitação (...) [PROT-AML, Volume 2, p. 35] (...) por outro lado, é fundamental a definição e a aplicação de um programa metropolitano de habitação, que resolva as principais carências habitacionais existentes. [PROT-AML, Volume 3, p. 81] 1.2.1.5. A execução das medidas e acções decorrentes do Esquema do Modelo Territorial requer a explicitação e adopção de uma política de solos, tanto ao nível central como local, que suporte a intervenção pública no mercado de solos, sendo necessário aplicar, até que se realize a reforma da fiscalidade do imobiliário, mecanismos de minoração dos efeitos desviantes introduzidos pelo regime actual na gestão territorial e nas finanças locais. (...) 1.2.1.8. Apresenta-se também indispensável a intervenção pública no mercado imobiliário para a satisfação de segmentos do mercado a que a iniciativa privada não tem respondido, designadamente em áreas de desqualificação socio-urbanística. (...) 1.2.1.16. Do mesmo modo, deverão ser introduzidas alterações, no regime de arrendamento urbano, que estimulem o funcionamento do mercado habitacional, proporcionando melhores condições de acesso à habitação. [PROT-AML, Volume 3, pp. 87-89] 1.3.2.5. Desenvolver acções e projectos integrados nos domínios da habitação, da formação, do emprego e do apoio social dirigidos às populações afectadas por fenómenos de pobreza, desqualificação ou exclusão social. [PROT-AML, Volume 1, 1.3.2. Lisboa – Centro Metropolitano, p. 95/ RCM nº 68/2002] 2.1.4. A Administração Central: a) deve apoiar, nos termos da lei e dos programas existentes, as acções municipais que visem a requalificação e reconversão urbanística das

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	áreas desqualificadas, designadamente dos centros históricos degradados, das áreas urbanas periféricas, dos subúrbios habitacionais, dos bairros destinados a habitação social e das áreas de urbanização de génese ilegal (AUGI); [PROT-AML, Volume 1, 2.1. Ordenamento Territorial e Planeamento Urbanístico, p. 103/ RCM nº 68/2002]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
- De facto, apesar de se verificar uma grande produção de novas áreas habitacionais e de existir um esforço crescente a nível da requalificação e reabilitação de algumas áreas habitacionais antigas, ainda não é visível uma atenuação ou inversão dos fenómenos de segregação socio-espacial que expulsam população residente da cidade em direcção a outros locais da periferia. [PROT-AML, Volume 3, p. 7] 2 – bairros de barracas com carências profundas em todos os domínios que se reflectem na segregação socioeconómica dos seus residentes; [PROT-AML, Volume 3, p. 34] - A AML acumula todos os factores sociais e urbanísticos geradores de exclusão social, de fortes assimetrias e de fragmentação territorial: um processo histórico que, em geral, permitiu a urbanização desordenada e desqualificada, aos níveis social e espacial (políticas de planeamento ineficazes, ausência de requalificação da habitação e do espaço público, bem como de infra-estruturas e equipamentos adequados às necessidades, aos hábitos e às expectativas legítimas das populações); tendência para a desertificação das áreas centrais com reforço cumulativo do processo de suburbanização; envelhecimento da população; concentração de comunidades imigrantes e minorias étnicas de grande heterogeneidade cultural; insuficiência das estruturas e dinâmicas educacionais e de capacitação profissional; desigualdades nas condições de mobilidade e insuficiência ao nível dos equipamentos sociais e cívicos. [PROT-AML, Volume 1, 3 Estratégia de Coesão Socio-Territorial, p. 21/ RCM nº 68/2002]	3. Coesão sócio-territorial – através de uma melhoria sustentada das condições de vida e da qualidade urbana para a população residente na AML. A erradicação dos bairros de barracas e de outras situações de precaridade residencial, melhorando, em simultâneo, as condições de realojamento e de equipamentos dos bairros sociais; a requalificação dos subúrbios é uma proposta inovadora e de óbvias consequências sociais e territoriais; a implementação de uma política urbana de equidade territorial, garantindo a igualdade de oportunidades no acesso aos equipamentos, à habitação e aos serviços; e a valorização dos recursos humanos, da empregabilidade e do emprego, são as condições que se preconizam para a garantia da coesão sócio-territorial na AML. [PROT-AML, Volume 1, 2 Prioridades, p. 7/ RCM nº 68/2002] (síntese) 1. Requalificação sócio-urbanística de áreas degradadas A) Programa Especial de Realojamento (PER) B) "Dar vida aos subúrbios" C) Revitalização das áreas históricas D) Qualificação dos bairros sociais sub-equipados e degradados 2. Implementação de políticas de valorização dos recursos humanos, de emprego e empregabilidade 3. Implementação de uma política urbana e habitacional de equidade territorial 1. Requalificação sócio-urbanística de áreas degradadas [PROT-AML, Volume 1, 4 Estratégia de Coesão Socio-Territorial, pp. 21-24/ RCM nº 68/2002] - Integração e Coesão Social: • Habitação; • Apoio a grupos de risco [PROT-AML, Volume 1, 5 Estratégia Territorial, p. 35/ RCM nº 68/2002]

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Verificam-se, na Área Metropolitana de Lisboa, algumas debilidades sociais e urbanísticas – carências habitacionais, emprego precário e desqualificado, desemprego, insuficientes estruturas e dinâmicas educacionais e de formação profissional, insuficientes equipamentos sociais, culturais e de saúde, dificuldades nas acessibilidades, degradação dos espaços públicos – que estão na origem do aparecimento de “núcleos” de habitação precária, muitas vezes de origem clandestina, localizados em áreas fortemente degradadas e em “bolsas de pobreza”. [PROT-AML, Volume 3, p. 80] ■ Foram identificados bairros críticos em todos os concelhos da margem norte da AML, com grande diversidade ao nível da sua distribuição, que representam cerca de 23% daqueles assinalados no Continente. O concelho de Lisboa distingue-se claramente, na margem norte, e mesmo em relação à AML, com 143 689 habitantes em 89 bairros, seguido do concelho da Amadora, com 33 578 habitantes em 34 bairros. [PROT-AML, Volume 3, p. 82] ■ Se se analisar a proporção da população que vive em bairros críticos face ao total de população residente, por concelho, verifica-se que é Lisboa que, mais uma vez, se destaca dos restantes, com 25.9%. [PROT-AML, Volume 3, p. 84] ■ Nas áreas de fronteira com os principais eixos de crescimento urbano que dela irradiam ocorrem, ainda, lacunas e desarticulações de infra-estruturação, fenómenos de desqualificação do espaço urbano, designadamente a existência de núcleos de barracas e outro tipo de habitação degradada, em promiscuidade com unidades industriais e de armazenagem em declínio, abandonadas ou, de um modo geral, pouco cuidadas inseridas num espaço público não minimamente tratado. Os problemas de pobreza, exclusão ou, de alguma forma, de desqualificação social são nesta unidade particularmente graves, afectando cerca de 30% da população residente, agravados pela presença significativa de minorias étnicas residentes em bairros degradados. [PROT-AML, Volume 1, 2 Unidades Territoriais, p. 44/ RCM nº 68/2002] ■ Na parte nascente desta unidade, a ocupação urbana é polinucleada, descontínua e diversificada, existindo núcleos históricos ribeirinhos ainda relativamente conservados e preservados mas também bolsas de habitação de má qualidade construtiva e arquitectónica,	■ A proposta de PROTAML visa os seguintes quatro objectivos fundamentais: A promoção da qualificação urbana, nomeadamente das áreas urbanas degradadas ou socialmente deprimidas, bem como das áreas periféricas ou suburbanas e dos centros históricos. [RCM nº 68/2002] ■ Coesão socioterritorial—através de uma melhoria sustentada das condições de vida e da qualidade urbana para a população residente na AML. A erradicação dos bairros de barracas e de outras situações de precariedade residencial, melhorando, em simultâneo, as condições de realojamento e de equipamentos dos bairros sociais; a requalificação dos subúrbios é uma proposta inovadora e de óbvias consequências sociais e territoriais; a implementação de uma política urbana de equidade territorial, garantindo a igualdade de oportunidades no acesso aos equipamentos, à habitação e aos serviços, e a valorização dos recursos humanos, da empregabilidade e do emprego são as condições que se preconizam para a garantia da coesão socioterritorial na AML; [RCM nº 68/2002, 2 — Prioridades] ■ Para alcançar este objectivo, dando corpo às condições definidas na visão estratégica para a Região de Lisboa e Vale do Tejo (RLVT), assumem-se como linhas estratégicas de desenvolvimento para a AML: (...) 5) Promover a coesão social, através do incremento da equidade territorial, da empregabilidade, do aprofundamento da cidadania e do desenvolvimento dos factores da igualdade de oportunidades; [RCM nº 68/2002, II — Opções estratégicas, 1 — Visão estratégica] ■ A concretização destas linhas estratégicas assenta fundamentalmente nas seguintes medidas: (...) 6) Integração urbana e social de grupos social e economicamente desfavorecidos— combate à pobreza e à exclusão social; [RCM nº 68/2002, II — Opções estratégicas, 1 — Visão estratégica] ■ A habitação tem efeitos directos na qualidade de vida das populações, sendo as suas carências e deficiências factores geradores de exclusão social e desqualificação ambiental que assumem uma maior visibilidade e merecem particular atenção e tratamento nas seguintes situações: 1 – zonas antigas degradadas com perda de população ou com população envelhecida de fracos recursos económicos e socialmente

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
muito congestionadas e deficientemente equipadas e infraestruturadas, algumas constituindo guetos com problemas de exclusão social. [PROT-AML, Volume 1, 2 Unidades Territoriais, 5. Arco Ribeirinho Sul, p. 44/ RCM nº 68/2002]	desintegrada; 2 – bairros de barracas com carências profundas em todos os domínios que se reflectem na segregação socioeconómica dos seus residentes; 3 – bairros sociais onde se associam factores de precarização social, como a fraca qualidade habitacional, as insuficiências de espaço público, de serviços e equipamentos complementares e a concentração de populações desfavorecidas e vulneráveis a situações de risco; 4 – áreas urbanas de génese ilegal afectadas por carências de infra-estruturas e equipamentos que são geradoras de forte desqualificação urbanística e fragmentação territorial e constituem elementos perturbadores da vivência e modos de vida das populações. [PROT-AML, Volume 3, p. 34]

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	A concretização destas linhas estratégicas assenta fundamentalmente nas seguintes medidas: (...) 7) Qualificação dos sistemas de educação, formação e inserção profissional; 8) Incremento do lazer e do turismo; 9) Realização e promoção de eventos multiculturais e desportivos; 10) Reforço do sistema de produção e difusão científica e tecnológica; 11) Desenvolvimento de serviços avançados de nível internacional; 12) Desenvolvimento das indústrias de conteúdos. [RCM nº 68/2002, II — Opções estratégicas, 1 — Visão estratégica]

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

MUNICIPALITY:	Área Metropolitana de Lisboa
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 68/2002 de 8 de Abril – Plano Regional de Ordenamento do Território da Área Metropolitana de Lisboa (PROT-AML) Resolução do Conselho de Ministros n.º 92/2008 de 5 de Junho – Plano Regional de Ordenamento do Território da Área Metropolitana de Lisboa PROT-AML – Proposta, Volume I (Versão Aprovada) PROT-AML – Programa de Execução, Meios e Fontes de Financiamento, Volume II PROT-AML – Relatório, Estudos de Fundamentação Técnica, Volume III (Setembro de 2001) PROT-AML – Relatório, Estudos de Fundamentação Técnica, Volume IV (Setembro de 2001)

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ A dinâmica populacional encontra-se em regressão constante, apresentando ainda assim uma dimensão populacional significativa, mas bastante envelhecida. O declínio destas áreas é evidente, e tende a acentuar-se se não se implementarem rapidamente mecanismos de reacção à falta de oportunidades de emprego e à repulsão dos seus espaços. O aproveitamento destes espaços passa necessariamente pela dinamização do sector agrícola e florestal, da qual depende maioritariamente a base produtiva local. [PROT-NORTE – Relatório, p. 98] ■ As principais tendências que resultam do estudo sobre as Projecções de População Residente até ao ano de 2020 são as seguintes: diminuição muito ligeira da população residente, e envelhecimento da população. De facto, estas duas tendências verificam-se tanto para Portugal como para a Região do Norte, embora com dimensões relativas diferentes. Projecta-se que Portugal terá, no ano de 2020, uma população residente de 10.489 mil indivíduos, verificando-se uma redução ligeira relativamente ao valor estimado para 2007 (10.617 mil indivíduos). O valor da taxa de variação percentual para Portugal de 2007 (valor da população residente estimado) para 2020 (valor projectado) atinge o valor negativo de 1,2%, o que corresponde uma redução de efectivos populacionais de 120.000 habitantes. Para a Região do Norte, estima-se uma população de 3.745 mil indivíduos em 2007, projectando-se que venha a ter uma população residente de 3.725 mil indivíduos em 2020. Verifica-se, então, que a respectiva taxa de variação, embora negativa, é de tal forma reduzida (apenas 0,5%) que se pode afirmar que estamos em presença de uma estagnação da população. No entanto, numa perspectiva de mais longo prazo, importa referir que o estudo projecta que, no ano de 2050, Portugal perderá (em função dos pressupostos assumidos), em relação ao ano de 2007, 12,4% da sua população residente, sendo o valor para a Região do Norte de -13,7%. Pelo que apesar de, no curto prazo (2020), a Região Norte apresentar uma tendência de manutenção da sua população, acaba por perder a longo prazo, em termos relativos, mais população residente do que Portugal no seu conjunto. No que concerne à segunda tendência apontada (envelhecimento da população), a Região do Norte apresenta valores bastante mais preocupantes face à realidade projectada para Portugal. Assim, analisando a taxa de variação percentual da população residente com idade superior a 65 anos de 2007 (valor estimado) para 2020, Portugal apresenta um crescimento de 15,5%, o	■ 3 – Revitalização de zonas urbanas degradadas e de áreas rurais em declínio populacional [PROT-NORTE – Relatório, p. 18] ■ Tendo em conta a natureza dos problemas com que a região se debate actualmente, e em particular o demográfico e socioeconómico e a crescente marginalização do seu território no contexto nacional e europeu, o Plano Regional de Ordenamento do Território deve procurar combater as tendências regressivas que ameaçam seriamente a coesão social e territorial da região ou mesmo, convém lembrá-lo, a manutenção de níveis mínimos de ocupação do território e a equidade no acesso aos respectivos serviços públicos locais e equipamentos colectivos. [PROT-NORTE – Relatório, p. 86] ■ Nesse sentido, e enquanto instrumento de desenvolvimento territorial, deve encontrar soluções para que Trás-os-Montes e Alto Douro enfrentem o principal desafio com que se confronta actualmente: aumentar a sua massa crítica em termos demográficos, urbanos ou ainda de relações económicas e de actores. A este desafio associa-se a necessidade da região ser atractiva, competitiva e solidária. Para concretizar estas ambições é necessário criar condições para que os diferentes actores locais e regionais adoptem progressivamente uma nova disposição face ao desenvolvimento, uma atitude estratégica que deve assegurar a busca da excelência, a promoção da inovação e a dinamização de parcerias entre o sector público e o sector privado. [PROT-NORTE – Relatório, p. 87] ■ São objectivos deste Programa o combate ao esvaziamento populacional, consequente melhoria das condições de vida, a promoção e dinamização socioeconómica dos aglomerados, a criação de condições para a sua atractividade turística e a divulgação do potencial turístico do Douro, numa dimensão mais ampla – natureza e cultura intimamente ligadas à produção do vinho. [PROT-NORTE – Relatório, p. 217] ■ 13. Apoios suplementares para programas destinados à cooperação entre cidades em NUTs III de baixa densidade populacional e com significativos défices de desenvolvimento [PROT-NORTE – Sistema Urbano, p. 6]

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que representa em termos absolutos o aumento de 280 mil indivíduos naquele grupo etário, enquanto a Região do Norte apresenta uma variação de 24,3%. (...) [PROT-NORTE – Relatório/Sumário Executivo, pp. 30-33/31-32] ■ Uma caracterização global e sucintamente das unidades ou grupos de paisagem da Região Norte salienta notórias diferenças em termos de realidade geográfica, social, económica, cultural e problemas distintos como os que atingem as paisagens litorais, com um crescimento urbano e alargamento da sua cintura periférica excessivos, deficit de planeamento, em grande parte devido à forte especulação imobiliária, contrastando com paisagens do interior com perda contínua da população, abandono de múltiplas aldeias e lugares e consequente alteração dos sistemas de exploração da terra. [PROT-NORTE – Relatório, p. 206] ■ Na Região Urbana do Porto, na área central emerge uma morfologia urbana consolidada, com dinâmicas que denunciam processos de desdensificação demográfica e económica, próprias da transformação da cidade tradicional. Os processos de regeneração são pouco expressivos e os estados de degradação física do património construído e de despovoamento são preocupantes. É uma área em perda populacional, mas ainda com razoável expressão do sector do comércio e serviços. Nos últimos anos, a crise da cidade central (perda populacional, diminuição de emprego e degradação do edificado) associou-se à crise do sector comercial tradicional e à dinâmica de realocação dos serviços. [PROT-NORTE – Sistema Urbano, p. 15] ■ Se quiséssemos caracterizar global e sucintamente as unidades ou grupos de paisagem da Região Norte encontraríamos notórias diferenças em termos de realidade geográfica, social, económica, cultural e problemas distintos como os que atingem as paisagens litorais, com um crescimento urbano e alargamento da sua cintura periférica excessivos, deficit de planeamento, em grande parte devido à forte especulação imobiliária, contrastando com paisagens do interior com perda contínua da população, abandono de múltiplas aldeias e lugares e consequente alteração dos sistemas de exploração da terra. [PROT-NORTE – Cultura, p. 3] ■ Num cenário de crescimento populacional pouco optimista, o Minho-Lima poderá ver reduzida a sua população para valores da ordem dos 220 a 230 mil habitantes num horizonte temporal de 30 anos. Uma evolução positiva do dinamismo económico, esperada e possível, com os saldos líquidos positivos de migração que lhes estarão	■ São objectivos deste Programa o combate ao esvaziamento populacional, consequente melhoria das condições de vida, a promoção e dinamização socioeconómica dos aglomerados, a criação de condições para a sua atractividade turística e a divulgação do potencial turístico do Douro, numa dimensão mais ampla – natureza e cultura intimamente ligadas à produção do vinho. [PROT-NORTE – Cultura, p. 23] ■ 3. Revitalização de zonas degradadas dos principais centros urbanos e das áreas rurais em forte declínio populacional; [PROT-NORTE – Ambiente Urbano, p. 5] ■ 3. Revitalização de zonas degradadas dos principais centros urbanos e das áreas rurais em forte declínio populacional; [PROT-NORTE – Enfoque Sub-Regional: Minho-Lima, p. 5] ■ Tendo em conta a natureza dos problemas com que a região se debate actualmente, e em particular o demográfico e socioeconómico e a crescente marginalização do seu território no contexto nacional e europeu, o Plano Regional de Ordenamento do Território deve procurar combater as tendências regressivas que ameaçam seriamente a coesão social e territorial da região ou mesmo, convém lembrá-lo, a manutenção de níveis mínimos de ocupação do território e a equidade no acesso aos respectivos serviços públicos locais e equipamentos colectivos. [PROT-NORTE – Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro, p. 11] ■ Separar centros urbanos e territórios que se encontram actualmente inseridos num mesmo subsistema poderá constituir um erro irremediável, uma vez que, para além de reduzir a já diminuta capacidade de polarização e estruturação espacial das principais cidades, contribuirá para a aceleração do declínio demográfico e económico de toda a região. [PROT-NORTE – Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro, p. 35] ■ Atractiva, no sentido de uma maior capacidade de fixação da população, de maior poder de atracção de novos residentes, turistas ou “utilizadores” de bens e serviços e de captação de maiores e mais diversificados investimentos produtivos. (...) • Equilibrada, no sentido de uma redistribuição espacial da população e das actividades que favoreça a consolidação do papel e das funções dos núcleos de média dimensão e evite uma desertificação rápida e acentuada da grande maioria dos espaços rurais.

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associados, poderá garantir o estancamento da perda populacional e mesmo garantir um aumento para valores entre 260 e 270 mil habitantes. [PROT-NORTE – Enfoque Sub-Regional: Minho-Lima, p. 6] ■ À cidade florescente, embora com sérios riscos de descaracterização, contrapõe-se uma dinâmica de marginalização e de declínio demográfico, social e económico da sub-região. [PROT-NORTE – Enfoque Sub-Regional: Minho-Lima, p. 17] ■ Cenário 1 – Um Território Pulverizado: Este é um cenário tendencial marcado pelas dinâmicas de marginalização e de declínio demográfico, social e económico da região. A imagem que prevalece é a de uma região em perda, pulverizada e sem massa crítica, essencialmente rural e agrícola, isolada e fechada sobre si mesmo, que mantém uma fraca inserção nos principais eixos de desenvolvimento. O esvaziamento e o envelhecimento demográfico atingem praticamente todo o território, fruto da manutenção dos fluxos emigratórios e da queda abrupta da taxa de natalidade. O despovoamento das zonas rurais só é em parte compensado por uma lenta e fraca concentração da população nas sedes do concelho e por um desigual processo de urbanização mais visível nas Cidades e nas Vilas localizadas ao longo dos dois principais eixos de estruturação do território: Vila Real/Bragança e Chaves/Lamego. Este processo é no entanto claramente insuficiente para conferir a estes pólos a indispensável massa crítica e não é acompanhado pela necessária articulação e integração do sistema urbano. [PROT-NORTE – Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro, p. 4] ■ Cenário 2 - Um Território Fracturado: Este é um cenário de ajustamento marcado por dinâmicas territoriais diferenciadas e antagónicas, de marginalização e de declínio demográfico, social e económico do Nordeste (grosso modo o distrito de Bragança e parte dos concelhos do Distrito de Viseu) e por um desenvolvimento muito ligeiro do Noroeste (a grande maioria dos municípios do Distrito de Vila Real e os restantes municípios do Distrito de Viseu). A imagem que prevalece é a de uma região fracturada, desarticulada e com pouca massa crítica, essencialmente rural e agrícola, parcialmente isolada e inserida nos principais eixos de desenvolvimento. Nos municípios da zona Leste, verifica-se uma forte progressão do esvaziamento e do envelhecimento demográfico e do despovoamento das zonas rurais, sendo este apenas compensado pela fraca concentração populacional e pela expansão urbana das sedes do concelho. [PROT-NORTE – Enfoque Sub-Regional: Trás-Os-Montes e Alto	[PROT-NORTE – Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro, p. 9] ■ E só uma actuação voluntarista neste sentido poderá levar a que, a médio prazo e associada à evolução dos sistemas de conectividades, se atenuem ou mesmo pontualmente se inverta o sentido dos movimentos populacionais (como tem vindo a acontecer na generalidade das sedes de concelho desde os anos oitenta do século passado), fixando ou atraindo população jovem e em idade activa que venha a permitir que, a médio/ longo prazo, estes espaços ganhem capacidade para manterem, com mais autonomia, uma estratégia de desenvolvimento e o aproveitamento e valorização dos recursos locais (não só de origem agro-pecuária mas também os ligados ao ambiente, à paisagem e à qualidade de vida). [PROT-NORTE – Proposta/Sumário Executivo, p. 24/6] ■ e) Organizar, neste contexto de cooperação inter-urbana, os tipos de mobilidade e os tipos de serviço em função daqueles, eventualmente com recurso a novos modos de mobilidade, de forma a assegurar uma oferta de serviços com qualidade e diversidade capazes de dar resposta adequada às necessidades e expectativas da população residente e visitante. [PROT-NORTE – Proposta, p. 36] ■ Admitem a retenção da população, bem como a entrada de novos residentes oferecendo novas formas de resposta ao desenvolvimento económico, no sentido de promover uma mudança da estrutura etária da população (com a chegada de populações jovens), novos serviços e novas formas de organização de serviços, associando actores públicos e privados. [PROT-NORTE – Proposta, p. 46] ■ b) Assegurar a manutenção das condições para cumprimento das suas funções: - Enquanto espaço de suporte para a coesão social e territorial através da promoção de actividades agro-florestais sustentáveis, manutenção de sistemas tradicionais e diversificação do sistema produtivo geradores de emprego local e revitalização económica e demográfica nos territórios de baixa densidade populacional. [PROT-NORTE – Proposta, p. 71] ■ Assegurando a manutenção das condições para cumprimento das demais funções, designadamente: -Enquanto espaço de suporte para a coesão social e territorial através da promoção de actividades agro-florestais sustentáveis, manutenção de

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Douro, p. 5] ■ Em suma, o sistema urbano regional de TMAD é caracterizado por uma rede urbana desequilibrada e marcada por assimetrias, estruturado segundo dois eixos diagonais (IP3 e IP4), com elevada concentração populacional nas sedes de município contrastando com um restante território de baixas densidades e de aglomerados dispersos e de baixa dimensão sem capacidade de promover polarizações, dinâmicas e relações socioeconómicas e culturais, bem como de atrair e fixar população. [PROT-NORTE – Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro, p. 24] ■ Particularmente gravosos são os movimentos de migração interna e externa, que levam ao declínio populacional acentuado das áreas rurais apoiadas na exploração agro-florestal, com a saída dos elementos mais jovens e válidos para os pontos de concentração do emprego – as cidades, a faixa litoral e mesmo o estrangeiro. Estes movimentos, basicamente unidireccionais, ainda para mais associados à alteração da estrutura etária, com acentuada baixa de natalidade e aumento da esperança de vida, levam a que vastas zonas rurais não tenham recursos humanos com dimensão crítica para iniciarem um processo de desenvolvimento necessitando de um apoio externos (não meramente financeiro) para inverterem o processo de declínio que, deixado livre, conduziria à desertificação de grandes áreas de território da região. [PROT-NORTE – Proposta/Sumário Executivo, p. 22/6]	sistemas tradicionais e diversificação do sistema produtivo geradores de emprego local e revitalização económica e demográfica nos territórios de baixa densidade populacional. [PROT-NORTE – Proposta, p. 169]

Sinking population density

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■ 1. Numa abordagem analítica, o Sistema Urbano do Norte assenta e organiza duas grandes unidades territoriais, ou seja dois padrões de ocupação do solo: uma região metropolitana litoral onde residem 3,4 milhões de habitantes, com uma base económica empreendedora, uma estrutura densa de infra-estruturas físicas e de serviços e uma forte densidade urbana; um território de baixa densidade económica no interior (Trás-os-Montes e Alto Douro), pouco populoso e bastante envelhecido, com um forte potencial ambiental e turístico e uma fraca densidade urbana e de infra-estruturas. [PROT-NORTE – Relatório, p. 52] ■ Ponte de Lima e Arcos de Valdevez/Ponte da Barca evidenciam uma capacidade de polarização capaz de amarrar e qualificar o espaço rural de baixa densidade do interior do Lima, enquanto o eixo Vila Nova de Cerveira/Paredes de Coura/Arcos de Valdevez e o eixo Monção/Arcos de Valdevez/Ponte da Barca, podem reforçar a coesão interna e a articulação com outros subsistemas do Norte (concretamente com a Aglomeração Regional de Braga). [PROT-NORTE – Relatório, p. 55] ■ Este eixo urbano é, por um lado, a plataforma de interface entre Aveiro e a Aglomeração do Porto e, por outro, polariza e organiza os territórios de baixa densidade do interior, onde se destacam Vale de Cambra e Arouca. [PROT-NORTE – Relatório, p. 56] ■ Vila Real, Mirandela, Macedo e Bragança, por seu turno, alimentam um eixo, apoiado no IP 4, concentrando equipamentos e empresas num espaço de baixa densidade, donde a importância da existência de uma dinâmica de reforço relacional que deverá ser potenciada ao serviço da criação de riqueza, valorização ambiental e fixação de pessoas. O Alto Douro (Vale do Douro Superior e parte da Terra Quente Transmontana e do Vale do Douro Sul), estrutura-se em torno de um conjunto de centros urbanos de pequena dimensão. Esta malha de centros estruturantes municipais suporta a sustentabilidade de um vasto território de baixa densidade e contribuem com um nível de serviços fundamentais para a coesão social. Neste espaço, devem ser sublinhados os efeitos de complementaridade e sinergia entre Torre de Moncorvo e Vila Nova de Foz Côa, com um ponto central na estação e barragem do Pocinho, que poderão apoiar a coesão territorial e promover as vocações turístico-cultural-ambientais do Alto Douro. [PROT-NORTE – Relatório, p. 57]	■ Articulando as acções já previstas pela Administração (IP2, IC5, desenvolvimento turístico, criação da estrutura de Missão para a Região Demarcada do Douro) com medidas para a prestação de serviços em zonas de baixa densidade, pretende-se definir orientações e propor acções que criem sinergias para o desenvolvimento económico-social sem prejudicar os valores naturais e paisagísticos desta zona. [PROT-NORTE – Relatório, p. 51] ■ É necessário dotar estes pólos de um conjunto de serviços mínimos que servirá todos os territórios abrangidos pela área de influência dos pólos e que deverá ser acompanhado por uma rede de estradas eficiente e por um sistema de transportes colectivo adequado à procura real, no sentido de melhorar as acessibilidades das populações rurais, em zonas de baixa densidade, a um conjunto de serviços de proximidade. [PROT-NORTE – Relatório, p. 99] ■ Utilização de Tecnologias de Informação e Comunicação (TIC) e outros serviços de proximidade em zonas de baixa ou muito baixa densidade; (...) Iniciativas locais de emprego, nomeadamente as relacionadas com a actividade turística e a produção de produtos endógenos, que fomentem não só o emprego feminino, mas também as oportunidades de vida em zonas de baixa densidade. [PROT-NORTE – Relatório, p. 99] ■ II. Generalização e consolidação da rede de espaços de atendimento integrado aos cidadãos e às empresas ("balcão único"), bem como, em áreas de baixa densidade, de unidades móveis a eles associados, conjugando proximidade e racionalização de estruturas, reengenharia e desmaterialização de processos. [PROT-NORTE – Relatório, p. 105] ■ 1.2. Fortalecimento das cidades/conjuntos de cidades regionais, cujo papel é fundamental na estruturação e articulação regional. A este nível, bem como no anterior, adquirem um papel central as intervenções em matéria de dotação de equipamentos de nível superior e de prestação de serviços avançados às populações e ao sector económico, que devem consolidar/amplificar o papel de equilíbrio regional das cidades e subsistemas urbanos de Braga e Vila Real, assegurando a sua função polarizadora do Norte Litoral e de Trás-os-Montes e Alto Douro,

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■ Caracteriza-se por reunir, no caso das zonas de montanha, as áreas deprimidas, com dinâmicas demográficas muito regressivas e com uma população bastante envelhecida. No caso da faixa litoral, as densidades populacionais são bem mais elevadas e o seu efectivo demográfico mais numeroso, embora sejam zonas com uma marcada dicotomia sazonal e economicamente dependentes e orientadas para o turismo. [PROT-NORTE – Relatório, p. 97] ■ Mais para o interior, Viseu, no contexto do subsistema urbano de Dão-Lafões, articula-se com a aglomeração urbana regional de Vila Real/Peso da Régua/Lamego, constituindo uma massa urbana fundamental na articulação dos territórios de forte densidade, do litoral, com os territórios de baixa densidade, do interior. O eixo Chaves – Viseu, que liga a região Centro à Galiza, reforça a acessibilidade nacional e fronteira aos recursos turísticos e vitivinícolas de todo o Douro. No interior, o eixo potenciado pelo IP2, pode constituir uma amarração entre os territórios de baixa densidade. A articulação inter-urbana em torno da afirmação de destinos turísticos qualificados, em função de singularidades e da excelência de recursos, pode aproximar a Beira-interior norte do Douro-interior. [PROT-NORTE – Relatório, p. 101] ■ Nos espaços de baixa e muito baixa densidade assiste-se ao desaparecimento generalizado da oferta de transportes público rodoviário fora dos principais eixos interurbanos ou nos locais em que o transporte escolar está a decrescer; são frequentes os casos de carreiras licenciadas que só operam no período escolar, na medida em que o nível de utentes nos períodos de férias não permitem aguentar as despesas de operação. [PROT-NORTE – Relatório, p. 120] ■ O Douro (Vale do Douro Superior, Terra Quente Transmontana e parte do Vale do Douro Sul), estrutura-se em torno de um conjunto de centros urbanos de pequena dimensão. Esta malha de centros urbanos complementares suporta a sustentabilidade de um vasto território de baixa densidade e contribuem com um nível de serviços fundamentais para a coesão social. Neste espaço, devem ser sublinhados os efeitos de complementaridade e sinergia entre Torre de Moncorvo e Vila Nova de Foz Côa que apoiam a coesão territorial e promovem as vocações turístico-culturais-ambientais do Alto Douro. [PROT-NORTE – Sistema Urbano, p. 46]	respectivamente, e o papel das cidades e aglomerações urbanas regionais na promoção da coesão territorial da região, em especial as situadas nos espaços sub-regionais de baixa densidade. [PROT-NORTE – Proposta/Sumário Executivo, p. 35/13] ■ f) Organizar a mobilidade de pessoas e bens, de forma a assegurar a equidade territorial no acesso a bens e serviços e, particularmente nos territórios de baixa densidade, assegurar a sustentação sócio-rural. [PROT-NORTE – Proposta/Sumário Executivo, p. 36/14] ■ É necessário dotar estes pólos de um conjunto de serviços mínimos que servirá todos os territórios abrangidos pela área de influência dos pólos e que deverá ser acompanhado por uma rede de estradas eficiente e por um sistema de transportes colectivo adequado à procura real, no sentido de melhorar as acessibilidades das populações rurais, em zonas de baixa densidade, a um conjunto de serviços de proximidade. (...) d) Utilização de Tecnologias de Informação e Comunicação (TIC) e outros serviços de proximidade em zonas de baixa ou muito baixa densidade; [PROT-NORTE – Sumário Executivo, p. 17] ■ f) Promoção de iniciativas locais de emprego, nomeadamente as relacionadas com a actividade turística e a produção de produtos endógenos, que fomentem não só o emprego feminino, mas também as oportunidades de vida em zonas de baixa densidade. [PROT-NORTE – Sumário Executivo, p. 18] ■ d) Garantir que os centros urbanos, incluindo todas as sedes de concelho, possuam um leque de serviços mínimos fundamentais à qualidade de vida dos residentes e à sustentabilidade dos territórios de baixa densidade. [PROT-NORTE – Proposta, p. 36] ■ b) Generalização e consolidação da rede de espaços de atendimento integrado aos cidadãos e às empresas (“balcão único”), bem como, em áreas de baixa densidade, de unidades móveis a eles associados, conjugando proximidade e racionalização de estruturas, reengenharia e desmaterialização de processos. [PROT-NORTE – Proposta, p. 38] ■ 5. No interior, a estruturação do eixo do IP2 pode potenciar a amarração entre territórios de baixa densidade. [PROT-NORTE – Proposta, p. 41] ■ b) A articulação das acções já previstas (IP2, IC5, desenvolvimento turístico, criação da Estrutura de Missão para a Região

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	Demarcada do Douro) com medidas para a prestação de serviços em zonas de baixa densidade, pretende-se definir orientações e propor acções que criem sinergias para o desenvolvimento económico-social sem prejudicar os valores naturais e paisagísticos desta zona. [PROT-NORTE – Proposta, p. 44] ▪ É necessário dotar estes pólos de um conjunto de serviços mínimos que servirá todos os territórios abrangidos pela área de influência dos pólos e que deverá ser acompanhado por uma rede de estradas eficiente e por um sistema de transportes colectivo adequado à procura real, no sentido de melhorar as acessibilidades das populações rurais, em zonas de baixa densidade, a um conjunto de serviços de proximidade. [PROT-NORTE – Proposta, p. 45] ▪ d) Utilização de Tecnologias de Informação e Comunicação (TIC) e outros serviços de proximidade em zonas de baixa ou muito baixa densidade; (...) f) Promoção de iniciativas locais de emprego, nomeadamente as relacionadas com a actividade turística e a produção de produtos endógenos, que fomentem não só o emprego feminino, mas também as oportunidades de vida em zonas de baixa densidade. [PROT-NORTE – Proposta, p. 45] ▪ O impulso na infra-estruturação logística, na racionalização e subvenção/ contratação de serviços urbanos de transportes públicos, a par com a redução automóvel nos espaços-canal em meio urbano, a multimodalidade, e a resolução de rupturas eminentes em serviços de transportes públicos em zonas de baixa densidade, poderão fazer alterar em alguns anos o quadro de vida e a qualificação das cidades na Região do Norte. [PROT-NORTE – Proposta/Sumário Executivo, p. 56/39] ▪ b) Assegurar a manutenção das condições para cumprimento das suas funções: - Enquanto espaço de suporte para a coesão social e territorial através da promoção de actividades agro-florestais sustentáveis, manutenção de sistemas tradicionais e diversificação do sistema produtivo geradores de emprego local e revitalização económica e demográfica nos territórios de baixa densidade populacional. [PROT-NORTE – Proposta, p. 71] ▪ c) Eixo do IP2 (A 52/ Sanabria) – Bragança – Guarda, de forma a potenciar a amarração entre territórios de baixa densidade em torno da aproximação e da criação de sinergias

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	entre a Beira Interior Norte, o Douro Interior e Trás-os-Montes. [PROT-NORTE – Proposta, p. 129] ■ 2. O sistema urbano regional deve orientar a definição e a estruturação e a configuração das redes de serviços, infra-estruturas e equipamentos públicos de âmbito supra-municipal e regional, garantindo condições de equidade territorial em termos de cobertura e acessibilidade, designadamente nos territórios de baixa densidade. (...) 5. No meio rural deve-se reforçar a qualidade de vida da população e elevar o grau de bem-estar dos cidadãos, assegurando os serviços públicos básicos adequados e suficientes. Dada a dimensão territorial da região e os níveis de acessibilidade e mobilidade, deve ser garantida a equidade territorial no acesso aos equipamentos e serviços. Neste sentido, por um lado, deve-se assegurar níveis de mobilidade de pessoas e bens, designadamente nos territórios de baixa densidade e, por outro lado, os serviços devem-se organizar em função do tipo de mobilidade a incrementar, ou seja, identificando se deve ser o serviço que se desloca ao utente ou se é o utente que se desloca ao serviço. [PROT-NORTE – Proposta, p. 133] ■ D11.26 Serviços em Áreas de Baixa Densidade: Estruturar nas áreas de baixa densidade de procura, as redes dos equipamentos e serviços colectivos de proximidade recorrendo à combinação de soluções de mobilidade das pessoas com as dos serviços e das funcionalidades (sistemas ambulatoriais), assumindo como princípio básico a lógica da maximização do acesso ao serviço [PROT-NORTE – Proposta, p. 137] ■ Promover as condições de acessibilidade aos equipamentos e serviços básicos de proximidade em zonas de baixa densidade de procura. Para tal, os municípios deverão agrupar-se por “bacias de transportes” para proceder à elaboração de programas intermunicipais de cobertura das Zonas de Baixa Densidade de Procura (ZBDP) com transportes alternativos fora dos corredores servidos pelos eixos de transportes interurbanos. [PROT-NORTE – Proposta, p. 152] ■ D13.03 Transportes em ZBDP: As Câmaras Municipais da Área Metropolitana do Porto deverão passar a exigir nos processos de licenciamento de operações urbanísticas de dimensão relevante e nos planos de pormenor que não sejam de modalidade específica, uma avaliação das condições

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	existentes de acessibilidade por transporte público, devendo tal avaliação e os parâmetros de ocupação futura ser fornecidos pelas Câmaras Municipais, a título informativo, a todos os operadores de transporte público presentes na área de influência da operação [PROT-NORTE – Proposta, p. 156] ■ Assegurando a manutenção das condições para cumprimento das demais funções, designadamente: -Enquanto espaço de suporte para a coesão social e territorial através da promoção de actividades agro-florestais sustentáveis, manutenção de sistemas tradicionais e diversificação do sistema produtivo geradores de emprego local e revitalização económica e demográfica nos territórios de baixa densidade populacional [PROT-NORTE – Proposta, p. 169] ■ 2. Incentivar iniciativas empresariais ligadas à transformação e valorização dos recursos naturais e agro-florestais bem como da prestação de serviços rurais e ambientais, como factor de valorização económica local dos recursos endógenos, eventualmente enquadrados em projectos de aproveitamento multisectorial ou programas de certificação agro-florestal, procurando privilegiar as que se localizem nos territórios de baixa densidade/perda demográfica. [PROT-NORTE – Proposta, p. 169] ■ A4. Favorecer a criação de uma rede urbana policêntrica A rede urbana da região é fortemente desequilibrada, marcada por grandes assimetrias, com um restante território de baixas densidades e de aglomerados dispersos e de baixa dimensão sem capacidade de promover polarizações, dinâmicas e relações socioeconómicas e culturais, bem como de atrair e fixar população, pelo que é necessário criar condições para o fortalecimento de uma rede urbana policêntrica, com coordenação e cooperação entre os vários centros urbanos. [PROT-NORTE – Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro, p. 12] ■ 1.5 Regular e qualificar a urbanização difusa de baixa densidade Os padrões de urbanização difusa estão normalmente diluídos em vários critérios de zonamento e de regulamento (construção em áreas rurais, extensões de aglomerados, urbano de baixa densidade, urbano extensivo, etc.), necessitando de uma clarificação sobre o contexto e extensão que os caracteriza (p.e. estruturas lineares sobre o viário capilar existente; rede de pequenas aglomerações

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	em contexto de baixa densidade; até à simples pulverização construtiva sem outra estrutura aparente). [PROT-NORTE – Arco Metropolitano, p. 95] ■ 3.4 Compatibilizar usos em áreas de baixa densidade Os usos não residenciais devem ser cuidadosamente analisados na perspectiva de despistar e anular conflitos com a habitação (produção de gases tóxicos, ruído, estacionamento e movimentação de cargas e de veículos pesados, etc.) através da utilização de critérios que permitam detectar e evitar os danos eventualmente provocados por essas actividades. [PROT-NORTE – Arco Metropolitano, p. 98] ■ 13. Apoios suplementares para programas destinados à cooperação entre cidades em NUTs III de baixa densidade populacional e com significativos défices de desenvolvimento [PROT-NORTE – Sistema Urbano, p. 6] ■ Neste território de baixa densidade, é fundamental que o programa de execução do PROT apresente uma proposta de oferta de serviços sociais que garanta níveis de equidade mais elevados. [PROT-NORTE – Sistema Urbano, p. 28] ■ Acção/ Projecto 1.1.2 – ESTRUTURAÇÃO DAS REDES E SISTEMAS DE PRESTAÇÃO DE SERVIÇOS BÁSICOS EM ZONAS RURAIS DE BAIXA DENSIDADE [PROT-NORTE – Programa de Execução, p. 13] ■ Acção/ Projecto 1.1.3 – CRIAÇÃO DE CENTROS DE ATENDIMENTO INTEGRADO, EM BALCÃO ÚNICO [PROT-NORTE – Programa de Execução, p. 14] ■ Acção/ Projecto 1.5.2 – Sistema de Monitorização do Planeamento e Gestão Urbanística do Território Municipal [PROT-NORTE – Programa de Execução, p. 43]

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
1. Numa abordagem analítica, o Sistema Urbano do Norte assenta e organiza duas grandes unidades territoriais, ou seja dois padrões de ocupação do solo: uma região metropolitana litoral onde residem 3,4 milhões de habitantes, com uma base económica empreendedora, uma estrutura densa de infra-estruturas físicas e de serviços e uma forte densidade urbana; um território de baixa densidade económica no interior (Trás-os-Montes e Alto Douro), pouco populoso e bastante envelhecido, com um forte potencial ambiental e turístico e uma fraca densidade urbana e de infra-estruturas. [PROT-NORTE – Relatório, p. 52] c. As áreas de “intermediação” fazem, aparentemente, a transição entre os espaços rurais e a “região urbana”. Nestas áreas, as aglomerações urbanas estão insuficientemente infra-estruturadas e não são espaços de forte atractividade e cultura urbana. São centros pouco dinâmicos, com uma estrutura funcional básica, que precisam de desenvolver projectos urbanos valorizadores da sua especificidade, que fomentem a concertação institucional e de proximidade, com as aglomerações urbanas envolventes. [PROT-NORTE – Sistema Urbano, p. 21] 1. Numa abordagem analítica, o Sistema Urbano do Norte assenta e organiza duas grandes unidades territoriais, ou seja dois padrões de ocupação do solo: uma região metropolitana (identificada como Arco Metropolitano do Norte Litoral no PNPT) onde residem 3,4 milhões de habitantes (a larga maioria dos quais na região Norte), com uma base económica empreendedora, uma estrutura densa de infra-estruturas físicas e de serviços e uma forte densidade urbana; um território de baixa densidade económica no interior-norte (Trás-os-Montes e Alto Douro), pouco populoso e bastante envelhecido, com um forte potencial ambiental e turístico e uma fraca densidade urbana e de infra-estruturas. [PROT-NORTE – Sistema Urbano, p. 41]	- Nos territórios de urbanização difusa deve encorajar-se, dando-lhes prioridade, as operações que promovam a densificação dos tecidos urbanos já existentes e a consolidação de subsistemas urbanos com vínculos funcionais, culturais e paisagísticos. Nas áreas onde estão previstas novas infra-estruturas é necessário desenvolver uma política fundiária antecipatória e nas áreas mais periféricas e menos urbanizadas deve limitar-se a infra-estruturação. [PROT-NORTE – Sistema Urbano, p. 35] - Os investimentos públicos (em equipamentos, infra-estruturas, qualificação dos espaços públicos,...) devem ser condicionados pela necessidade de reforçar densificações e/ou promover o policentrismo e a multifuncionalidade. [PROT-NORTE – Sistema Urbano, p. 35]

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Por razões diversas é também relevante a quota das deslocações a pé, com relevância para o Cávado/Ave (37%) e Sousa/ Baixo Tâmega (35%). Os altos níveis de deslocação a pé na região indiciam não uma política de promoção desse transporte por via da qualificação urbana e periurbana da infraestrutura associada (passeios, bermas de estrada, etc.), mas antes a conjugação de vários factores tais como falta de fiabilidade do autocarro (preso no congestionamento), baixas frequências de oferta, pequena distância média das deslocações e diminuição do poder de compra na região. Não fosse este último factor, conjugado com a elevada taxação associada ao automóvel, e a RN estaria com graves problemas no sistema de mobilidade por via de ainda maior congestionamento automóvel, o que traria graves implicações ambientais e energéticas. [PROT-NORTE – Relatório, p. 121]	no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
A fragilidade (em termos de dimensão e de diferenciação de funções) dos escalões intermédios dos centros urbanos da Região. (ver figura 10). [PROT-NORTE – Relatório, p. 18]	3 – Qualificação e competitividade da AMP e das cidades médias (núcleos estruturantes do sistema urbano) [PROT-NORTE – Relatório, p. 16]

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ (...) o envelhecimento do seu parque edificado, o estado obsoleto de muitas das suas infra-estruturas, são situações que, aliadas à limitada capacidade de intervenção da Câmara Municipal de Elvas, têm concorrido para a consequente degradação dos edifícios e o agravamento das condições de solidez, segurança e salubridade. [Decreto n.º 39/98] ▪ O programa de habitação social que os municípios implementaram nos últimos vinte anos mostrou-se claramente insuficiente e desadaptado das reais necessidades. Políticas de realojamentos e de reinserção social, programas de luta contra a pobreza, apoios através do rendimento mínimo garantido, entre muitos outros programas de iniciativa central ou comunitária deram contributos importantes mas mostraram-se insuficientes para travar os intensos processos de polarização social. (...) Assim, nos últimos anos enquanto algumas Câmaras Municipais, e o próprio IGAPHE, tentavam já desfazer-se dos alojamentos de habitação social de que são proprietários, por constituírem um encargo financeiro insuportável no curto e/ou médio prazo, outras autarquias, vizinhas, endividaram-se para construir mais habitação social com uma morfologia urbana que não promove a cidadania. Concluindo, o Estado tem vindo a intervir no mercado de habitação através da construção de alojamento social, mas não tem tido um papel exemplar na construção da paisagem urbana e na afirmação da <i>Polis</i>. [Sistema Urbano, pp. 36-37]	▪ Sempre que a situação socio-económica ou urbana o justifique, devem ser exigidas quotas de habitação a custos controlados nas promoções de dimensão apreciável, como forma de atenuar as carências habitacionais observadas sem obrigar à concentração de habitação social. As cedências para equipamentos e áreas verdes legalmente previstas deverão ser escurpulosamente definidas no licenciamento, admitindo-se que o cumprimento dessas exigências por parte dos operadores privados possa ser feita em terreno separado, em obras locais ou numerário, de acordo com as intenções e políticas camarárias, previamente estabelecidas. [PROT-NORTE – Arco Metropolitano, p. 94] ▪ 6. Povoamento – aproximar as ofertas das procura no desenvolvimento urbano A habitação como uso dominante na cidade existente e emergente, as políticas urbanas e o alojamento com especial atenção às procura de menores rendimentos. 6.1. Compatibilizar a política de habitação com as previsões do mercado de habitação. É essencial definir uma política realista de habitação baseada no conhecimento da procura e oferta, tendo em consideração a sua crescente diferenciação, o reabilitado e o novo, o realojamento, a segunda habitação, o turismo residencial, e os utentes de carácter temporário (os emigrantes, os estudantes e os hipermóveis, etc.). Deverão ser criados dispositivos que informem os promotores acerca das necessidades reais do mercado de habitação local. 6.2. Dar atenção especial à procura local menos solvente em relação ao mercado. Deverá ser dada atenção especial à procura local menos solvente em relação ao mercado, recorrendo a soluções menos utilizadas tais como quotas de habitação social no licenciamento de urbanizações ou o encorajamento da reabilitação do parque existente. 6.3. Reabilitar áreas urbanas desqualificadas. Estabelecer instrumentos que promovam a reabilitação dos tecidos urbanos existentes, incentivando acções de requalificação que contribuam para a melhoria das condições de vida de determinados sectores da cidade designadamente de bairros sociais mais degradados. 6.4. Integrar novos conjuntos para menores rendimentos nas áreas já urbanizadas. Promover a fixação da população de menores rendimentos em áreas urbanas consolidadas,

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	preferencialmente em edifícios preexistentes, garantindo uma boa acessibilidade aos serviços de educação e saúde e espaços colectivos qualificados. 6.5. Utilizar unidades de execução para dinamizar o mercado de solos. Dinamizar o mercado de solos utilizando Unidades de Execução realistas e bem programadas que promovam equitativamente a execução de infra-estruturas e espaços livres e que permitam a negociação de quotas de habitação de custos controlados, tendo em vista uma maior probabilidade de alargamento da procura e a integração da diversidade social – idades, rendimentos, culturas. [PROT-NORTE – Arco Metropolitano, pp. 102-103] ■ 3. Assegurar que as cidades constituem espaços de qualidade ambiental e bem-estar, promovendo formas sustentáveis de uso dos recursos, de desenho urbano, de edificação, de mobilidade e de paisagem, e condições adequadas de acesso à habitação, aos equipamentos e serviços e aos diversos tipos de amenidades. [PROT-NORTE – Proposta, p. 131] ■ Promoção da afectação de áreas com capacidade edificatória a habitação de custos controlados, quando necessário; [PROT-NORTE – Proposta, p. 140] ■ No âmbito dos PMOT e dos regulamentos municipais devem ser definidas regras que permitam á autarquia estabelecer, em operações urbanísticas de dimensão significativa a fixar, a obrigatoriedade de prever a afectação de uma dada percentagem da área de construção habitacional a habitação a custos controlados. [PROT-NORTE – Proposta, p. 147] ■ _Reabilitar o parque habitacional [Sistema Urbano, p. 8]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	- A melhoria das condições infra-estruturais ligadas à conectividade externa e internacional e a criação de condições para a promoção de emprego qualificado são determinantes para a inclusão social e territorial. [PROT-NORTE – Relatório, p. 13] - Relação directa. Igualdade de oportunidades entre as várias parcelas do território regional. [PROT-NORTE – Relatório, p. 13] - A equidade é componente essencial da inclusão social e territorial. [PROT-NORTE – Relatório, p. 13] - As redes de TIC são o novo domínio base de inclusão social e territorial, ao reduzirem / eliminarem a relevância das distâncias físicas. [PROT-NORTE – Relatório, p. 13] - Contributo genérico pela promoção da cidadania, com contributos positivos na inclusão social e na proposta de intervenções sobre o território. [PROT-NORTE – Relatório, p. 13] - A revalorização dos factores de sustentabilidade reflecte-se também na valorização dos territórios mais marginalizados, promovendo condições de integração social e de igualdade de oportunidades. [PROT-NORTE – Relatório, p. 13] - Tendo em conta a natureza dos problemas com que a região se debate actualmente, e em particular o declínio demográfico e socioeconómico e a crescente marginalização do seu território no contexto nacional e europeu, o Plano Regional de Ordenamento do Território deve procurar combater as tendências regressivas que ameaçam seriamente a coesão social e territorial da região ou mesmo, convém lembrá-lo, a manutenção de níveis mínimos de ocupação do território e a equidade no acesso aos respectivos serviços públicos locais e equipamentos colectivos. [PROT-NORTE – Relatório, p. 87] III. Reforçar a coesão social e territorial regional visando a redução das assimetrias intraregionais e a definição de padrões mínimos de provimento de bens e serviços públicos fundamentais. [PROT-NORTE – Relatório, p. 91] - Nesse sentido, a valorização das vocações funcionais e o desenvolvimento de redes inter-urbanas para a sustentabilidade e a coesão social podem permitir um

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	aproveitamento de recursos de forma racional e integrada e um desenvolvimento urbano mais sustentável. [PROT-NORTE – Relatório, p. 102] ▪ O abastecimento de água às populações é uma actividade vital para a vida humana, e o seu fornecimento às populações em quantidade, qualidade e a um preço socialmente justo é um serviço público e deve ser sempre, em primeira linha, uma responsabilidade do Estado e das Autarquias locais, sem prejuízo dessa responsabilidade ser delegada no sector privado, salvaguardada que seja a necessária conciliação entre os legítimos interesses em presença. O mesmo pode ser dito dos serviços de saneamento. [PROT-NORTE – Relatório, p. 110] ▪ É fundamental que o modelo de organização do sector: (...) Promova a solidariedade e a coesão nacionais, através de sistemas tarifários que sejam socialmente aceitáveis. [PROT-NORTE – Relatório, p. 111] ▪ Em relação ao segundo grande objectivo, incentivar utilização crescente das TIC, pretende-se generalizar o uso das TIC, em especial através da prestação de serviços públicos com recurso às TIC para consolidar a Sociedade da Informação e promover a coesão social e territorial. [PROT-NORTE – Relatório, pp. 138-139] ▪ Ressalta assim a constatação de sobreposições e complementaridades nos objectivos das políticas, que se podem reflectir em instrumentos e medidas afins e também complementares, cuja articulação requer um esforço de integração e coordenação, tendo em consideração os seguintes contextos: (...) Contexto social, no que respeita à promoção da inclusão social, da qualidade de vida e do reforço da cidadania. [PROT-NORTE – Relatório, p. 222] ▪ No que se refere às estruturas e dinâmicas produtivas, o paradigma social destina à iniciativa privada o papel motor da racionalidade económica, da inovação e do crescimento, reservando para as políticas públicas um papel coadjuvante, centrado, sobretudo, na prevenção de externalidades negativas (ou na sua compensação), na promoção de externalidades positivas, na correcção de falhas do mercado, na promoção da coesão económica social e territorial e na criação de condições institucionais que, genericamente, favoreçam o desenvolvimento económico. [PROT-NORTE – Relatório, p. 243]

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ O Tâmega constitui uma das áreas mais críticas em termos de estruturação urbana. Trata-se de uma área densamente povoada, ainda que no modelo difuso, demograficamente muito dinâmica e jovem, mas socialmente pouco escolarizada e qualificada. [PROT-NORTE – Relatório, p. 55] ■ Abdica da coesão territorial e garante a coesão social através do êxodo populacional em direcção à cidade. [PROT-NORTE – Enfoque Sub-Regional: Minho-Lima, p. 17] ■ O restante território manteria, também neste cenário, uma dinâmica de marginalização e de declínio demográfico, social e económico. [PROT-NORTE – Enfoque Sub-Regional: Minho-Lima, p. 18]	■ Acção/ Projecto 1.5.2 – Sistema de Monitorização do Planeamento e Gestão Urbanística do Território Municipal [PROT-NORTE – Programa de Execução, p. 43] ■ - Prioridade III: Norte EQUALITY – Promover a inclusão social e territorial. [PROT-NORTE – Ambiente Urbano, p. 3] ■ - Contribuir para uma melhor qualidade de vida e bem-estar social através de uma abordagem integrada e centrada nas zonas urbanas; [PROT-NORTE – Ambiente Urbano, p. 7] ■ Prioridade III: Norte EQUALITY – Promover a inclusão social e territorial. 1. Promoção de uma sociedade inclusiva e da igualdade de oportunidades; 2. Melhoria da equidade dos cidadãos no acesso aos principais bens e serviços públicos; 3. Revitalização de zonas degradadas dos principais centros urbanos e das áreas rurais em forte declínio populacional; 4. Valorização dos recursos do(s) território(s) da Região. [PROT-NORTE – Enfoque Sub-Regional: Minho-Lima, p. 5] ■ Assegurar a sustentabilidade dos serviços colectivos e de administração numa óptica de equidade social e de combate ao despovoamento, reforçando a dimensão funcional dos principais aglomerados, numa perspectiva de especialização, complementaridade e cooperação. [PROT-NORTE – Proposta, p. 16] ■ iii. Promover a inclusão social e territorial. O PROT-Norte, pela sua natureza e características – plano de intervenção territorial – incide mais directamente no terceiro eixo do NORTE 2015 – “Inclusão social e territorial.” [PROT-NORTE – Proposta, p. 17] ■ vi. Promover a inclusão social e territorial. Como base e ponto comum destas três prioridades está a intenção de promover a “economia do conhecimento” em toda a região, não só ao nível das actividades económicas como da equidade social e da coesão territorial. (...) Dar um particular acolhimento às medidas, acções e projectos que, mesmo quando dirigidos à prossecução de outras prioridades, conduzam a mais-valias directas para a Inclusão Social e Territorial; [PROT-NORTE – Proposta/Sumário Executivo, p. 23/4] ■ e) Valorização das vocações funcionais e desenvolvimento de redes inter-urbanas para

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	a sustentabilidade e a coesão social, tendo em vista o aproveitamento e as sinergias entre equipamentos e recursos, promovendo um desenvolvimento urbano mais sustentável; [PROT-NORTE – Proposta/Sumário Executivo, p. 33/12] ■ 7 Devem ser apoiadas iniciativas de tecnologias de informação e telecomunicações que conjuguem objectivos gerais de aumento de competitividade da região com níveis adequados de coesão social, nomeadamente garantindo que as entidades ligadas à Saúde e à Educação têm acesso às redes físicas, mas também às ferramentas e à formação adequada para tirar partido delas. [PROT-NORTE – Proposta/Sumário Executivo, p. 59/41] ■ b) Assegurar a manutenção das condições para cumprimento das suas funções: - Enquanto espaço de suporte para a coesão social e territorial através da promoção de actividades agro-florestais sustentáveis, manutenção de sistemas tradicionais e diversificação do sistema produtivo geradores de emprego local e revitalização económica e demográfica nos territórios de baixa densidade populacional. [PROT-NORTE – Proposta, p. 71] ■ d) Contexto social, no que respeita à promoção da inclusão social, da qualidade de vida e do reforço da cidadania. [PROT-NORTE – Proposta, p. 72] ■ Estando a defesa destes sistemas determinada por princípios de utilidade pública, prevenção de riscos e suporte da coesão social e territorial, importa direccionar preferencialmente para estas áreas instrumentos de discriminação positiva dos territórios rurais, pelas funções ambientais prestadas, de compensação para a perda de rendimento, e prever o alargamento das áreas de ITI a territórios de montanha de importância estratégica para a região (Alvão-Marão, Montemuro). [PROT-NORTE – Proposta, p. 109] ■ No que se refere às estruturas e dinâmicas produtivas, o paradigma social destina à iniciativa privada o papel motor da racionalidade económica, da inovação e do crescimento, cabendo às políticas públicas um papel coadjuvante, centrado, sobretudo, na prevenção de externalidades negativas (ou na sua compensação), na promoção de externalidades positivas, na correcção de falhas do mercado, na promoção da coesão económica social e territorial e na criação de condições institucionais que, genericamente, favoreçam o desenvolvimento económico.

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
	[PROT-NORTE – Proposta, p. 124] ■ Privilegiar a utilização das Agendas 21 Locais, que associam a qualidade ambiental, a coesão social e o desenvolvimento económico como instrumento de gestão urbana sustentável. [PROT-NORTE – Proposta, p. 136] ■ A tradução do Modelo Territorial na estruturação e regulamentação dos usos do solo deve ainda acautelar a promoção da equidade social e territorial e a competitividade económica das actividades produtivas. [PROT-NORTE – Proposta, p. 138] ■ Assegurando a manutenção das condições para cumprimento das demais funções, designadamente: -Enquanto espaço de suporte para a coesão social e territorial através da promoção de actividades agro-florestais sustentáveis, manutenção de sistemas tradicionais e diversificação do sistema produtivo geradores de emprego local e revitalização económica e demográfica nos territórios de baixa densidade populacional [PROT-NORTE – Proposta, p. 169] ■ a) Da integração da política de conservação da natureza e da biodiversidade nos IGT, enquanto dimensão fundamental do desenvolvimento sustentável da Região do Norte e como contributo para a coesão territorial e social; [PROT-NORTE – Proposta, p. 173] ■ c) Definir estratégias e modelos de planeamento municipal que contribuam para a plena exploração dos recursos endógenos (nomeadamente agro-florestais), que induzam a coesão social e territorial através do fortalecimento das actividades do sector primário e da produtividade; [PROT-NORTE – Proposta, p. 198] ■ - Dar um particular acolhimento às medidas, acções e projectos que, mesmo quando dirigidos à prossecução de outras prioridades, conduzam a mais-valias directas para a Inclusão Social e Territorial; [PROT-NORTE – Sumário Executivo, p. 5] ■ vi. Promover a inclusão social e territorial. O PROT-Norte, pela sua natureza e características – plano de intervenção territorial – incide mais directamente no terceiro eixo do NORTE 2015 – “Inclusão social e territorial.” [PROT-NORTE – Sumário Executivo, p. 26]

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Mas como não se construiu “cidade, urbanidade e cidadania”, hoje procura-se resolver problemas de degradação habitacional e urbana, insegurança, criminalidade, toxicodependência e desemprego. O cidadão é aquele que se apropria da cidade e os territórios marginalizados são todos aqueles que não são apropriados ou são estigmatizados pelos habitantes ou usuários da cidade. Valorizar urbanisticamente os espaços marginalizados da cidade é “fazer cidade” e contribuir para a cidadania. [PROT-NORTE – Sistema Urbano, p. 36]	no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

MUNICIPALITY:	Norte
DOCUMENTS REVIEWED:	Plano Regional de Ordenamento do Território para a Região do Norte – Termos de Referência Plano Regional de Ordenamento do Território do Norte (PROT-NORTE) – Relatório (Julho de 2009) PROT-NORTE – Sumário Executivo (Julho de 2009) PROT-NORTE – Proposta de Plano (Julho de 2009) PROT-NORTE – Programa de Execução (Julho de 2009) PROT-NORTE – Fase I, Estudos Complementares de Caracterização Territorial e Diagnóstico Regional, Ambiente Urbano: Relatório Final (Maio de 2007) PROT-NORTE – Fase I, Estudos Complementares de Caracterização Territorial e Diagnóstico Regional, Cultura (Junho de 2007) PROT-NORTE – Fase II, Opções Estratégicas de Base Territorial – 1ª Proposta de Modelo Territorial, Enfoque Sub-Regional: Minho-Lima: Elementos para o Modelo Territorial, 1ª versão (Julho de 2007) PROT-NORTE – Fase II, Opções Estratégicas de Base Territorial – 1ª Proposta de Modelo Territorial, Enfoque Sub-Regional: Trás-Os-Montes e Alto Douro (Junho de 2007) PROT-NORTE – Relatório Síntese - Modelo Territorial: Arco Metropolitano (Março de 2009) PROT-NORTE – Sistema Urbano (Outubro de 2008)

Population decline and other related demographic issues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ No passado recente registou-se uma tendência para o crescimento populacional nas três sub-regiões, mormente no período entre 1991-2001 (Quadro 2; Figura 3). Contudo, no Oeste o aumento da população revela-se mais acentuado (7,3%), superando o crescimento médio de Portugal Continental (5,3%) e da Região de Lisboa (5,6%). O crescimento populacional deve-se, essencialmente, à componente migratória. Alargando a análise ao período compreendido entre 1981-2001, o crescimento populacional do Oeste revela-se ainda mais significativo (cerca de 9%), sendo mais modesto na Lezíria do Tejo (2,9%) e inclusivamente negativo no Médio Tejo (-0,7%). [Diagnóstico Estratégico, p. 16] ■ Por outro lado, num processo claramente inverso encontram-se Coruche e Chamusca que têm vindo a perder população de forma progressiva (-15,6% e -12,5%, respectivamente). O concelho da Golegã iniciou a sua regressão populacional na última década (-6%). [Diagnóstico Estratégico, p. 17] ■ Envelhecimento da população activa e crescimento continuado da taxa de desemprego. [Sumário Executivo, p. 8] ■ Fraca capacidade de rejuvenescimento da população activa e níveis de habilitação escolar da população empregada reduzidos. [Proposta, p. 27] ■ Envelhecimento da população activa e crescimento continuado da taxa de desemprego. [Proposta, p. 30]	■ Definir orientações e propor medidas para contrariar os fenómenos de urbanização e edificação difusa para fins habitacionais ou instalação de actividades não rurais, promovendo o devido acolhimento das dinâmicas edificatórias no âmbito da programação do sistema urbano e das áreas de localização de actividades; [RCM n.º 30/2006, p.2] ■ A importância das cidades versus núcleos rústicos ou edificado linear e disperso dilui-se no território, pelo que se torna essencial a definição uma política de povoamento que acompanhe a política de cidades, dadas as particulares características do sistema urbano nesta sub-região. [Diagnóstico Estratégico, p. 66] ■ Constituem factores de sustentabilidade/projecção da ferrovia a localização da área do PROT- OVT e das redes de infra-estruturas principais de transporte, induzindo à fixação de população, e a existência de pólos médios de geração e de atracção de deslocações, no interior da região, situação que irá ser potenciada pelos anunciados projectos NAL e AV; [Sistema de Transportes, p. 12]

Sinking population density

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
■ Ameaça (Rodovia): Proliferação de áreas residenciais com baixa densidade e descentralização/dispersão nas áreas urbanas de equipamentos/serviços devido a dificultarem implementação de transportes públicos económico - financeiramente sustentáveis; [Sistema de Transportes, p. 14] ■ A estrutura do povoamento do OVT realça um conjunto de aglomerados urbanos e a pulverização do povoamento, com morfologias e densidades muito diferenciadas. [Diagnóstico Estratégico, p. 71] ■ Verifica-se, porém, que existem algumas dificuldades na disponibilização de Banda Larga em zonas com menor densidade populacional. (...) Verifica-se que, na sua maioria, as zonas problemáticas em termos de ADSL, também não estão cabladas, o que é também explicado pela baixa densidade populacional. [Diagnóstico Estratégico, p. 159] ■ Pontos fracos: Envelhecimento e baixa densidade populacional nas zonas rurais, com o consequente abandono da gestão de partes significativas do território. [Diagnóstico Estratégico, p. 166] ■ Ameaças: Proliferação de áreas residenciais e de emprego com baixa densidade dificultando a implementação de transportes públicos financeiramente sustentáveis. [Diagnóstico Estratégico, p. 166] ■ Assim, em matéria de povoamento, na maioria das vezes não se promoveu a aglomeração, a colmatação e a interrelação entre a infra-estrutura e a edificação. [Sistema Urbano e Equipamentos, p. 17] ■ Nos territórios da margem esquerda do Tejo, apesar das baixas densidades de ocupação actual, o fecho da malha rodoviária principal e complementar (efeito conjugado entre as A1, A10, A13 e A23) pode resultar na constituição de espaços apetecíveis para futuras localizações. [Sistema Urbano e Equipamentos, p. 56] ■ No que respeita às tendências mais significativas, merecem destaque as seguintes: • a existência de dinâmicas potencialmente geradoras de algumas rupturas territoriais em termos de densidade e dimensão; [Sistema Urbano e Equipamentos, p. 56] ■ Pontos Fracos: Envelhecimento e baixa densidade populacional nas zonas rurais, com o consequente abandono da gestão de partes significativas do território. [Proposta, p. 28]	■ Programas Integrados de Incentivos para Regiões com graves problemas de reconversão: 13. Apoios suplementares para programas destinados à cooperação entre cidades em NUTs III de baixa densidade populacional e com significativos deficits de desenvolvimento (ex: Guarda, Covilhã, Castelo Branco, Portalegre); [Sistema Urbano e Equipamentos, p. 9] ■ É necessário repensar a rede de equipamentos e serviços de apoio à fixação de população, sobretudo jovem, atraída pela atractividade residencial e pelas oportunidades de emprego locais. [Sistema Urbano e Equipamentos, p. 53] ■ A concretização das Opções Estratégicas do PROT OVT pressupõe o fortalecimento do policentrismo que, numa perspectiva interna, passa pelo aprofundamento dos relacionamentos entre áreas urbanas do mesmo nível hierárquico e de nível hierárquico diferente (centros urbanos regionais, centros urbanos estruturantes e centros urbanos complementares). Isto significa que a estruturação do sistema urbano regional visa a promoção de relacionamentos de complementaridade e o desenvolvimento de sinergias entre as estratégias inter-urbanas, gerando densidade relacional e, deste modo, coesão e competitividade supra-municipal e regional. [Proposta, p. 67] ■ Orientações: 1. As políticas públicas sectoriais e os Instrumentos de Gestão Territorial devem promover o fortalecimento do policentrismo, mediante o aprofundamento dos relacionamentos entre áreas urbanas do mesmo nível hierárquico e de níveis diferentes, tendo em vista a promoção de complementaridades e o desenvolvimento de sinergias entre as estratégias urbanas, gerando densidade relacional, coesão e competitividade supra-municipal e regional. Do mesmo modo, deverão as políticas públicas estimular a afirmação de um leque de redes de especialização regional no quadro de contextos territoriais mais alargados, fomentando a competitividade internacional. [Proposta, p. 168] ■ Directrizes para a definição de regras de ocupação e transformação do uso do solo: - Definição de densidades de ocupação consonantes com o meio urbano em que se inserem - Previsão de infra-estruturas

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ Pontos Fracos: Proliferação de áreas residenciais e de emprego com baixa densidade dificultando a implementação de transportes públicos financeiramente sustentáveis. [Proposta, p. 29]	completas, estacionamento, equipamentos, espaços verdes e outros espaços públicos de proximidade com dimensão adequada. Instrumentos de execução: - Definição de unidades operativas de planeamento e gestão ou de unidades de execução para programação conjunta e integrada da urbanização, consideração os critérios de perequação e o faseamento da ocupação urbana a partir das zonas centrais ou de maior densidade urbana, assegurando a coerência económica e funcional do sistema de infra-estruturação; - Planos de urbanização ou Planos de pormenor; - Procedimentos concursais no caso das Áreas de localização empresarial. [Proposta, pp. 301-302] ▪ 3.3. Incremento do número de Unidades Móveis de Saúde sobretudo nos territórios de baixa densidade [Programa de Execução, p. 12] ▪ 5.4. Alargamento da gama de oferta de serviços colectivos e de interesse público suportados na Internet e na utilização das TIC, nos domínios da saúde, educação, serviços sociais, cultura e administração, garantindo o acesso das populações nos espaços de baixa densidade [Programa de Execução, p. 14] ▪ Desenvolver o Governo Electrónico na Região (Inclui o alargamento e melhoria da oferta de serviços de interesse público suportados na utilização das TIC em toda a Região, incluindo as áreas de baixa densidade populacional, nomeadamente nos domínios da saúde, educação, serviços sociais, cultura e administração pública) [Programa de Execução, p. 18]

Over dimensioned and underutilised infrastructure

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
iii) ainda insuficiências de infra-estruturas básicas em alguns concelhos. [Diagnóstico Estratégico, p. 82] 3. Em termos de infra-estruturas consideradas básicas (água, electricidade, esgotos, instalações sanitárias e cozinha), a maioria dos concelhos apresentavam em 2001 uma boa cobertura, sendo apenas de assinalar que alguns concelhos ainda persistem insuficientes nestas infra-estruturas. [Sistema Urbano e Equipamentos, p. 27] - Estrangulamentos: Persistem na Região concelhos que ainda não resolveram as necessidade de infra-estruturação básica (água, electricidade, esgotos, instalações sanitárias e cozinha). [Sistema Urbano e Equipamentos, p. 31]	no statements found

Higher transaction and per unit costs of public services

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Smaller tax base and declining tax revenues

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Assim, a Rodoviária do Tejo, para além de assegurar os serviços de transporte urbano em Abrantes, Peniche e Santarém (assim como em Leiria), também opera serviços de transporte urbano noutras sedes de concelho do Oeste e Vale do Tejo, através de contrato de prestação de serviços (com ou sem recurso a viaturas próprias): Alcobaça, Almeirim, Cartaxo, Entroncamento, Tomar e Torres Novas. Existem também serviços noutros locais, por exemplo em Nazaré (serviços municipalizados), Torres Vedras, Caldas da Rainha e outros estão previstos para breve (tal como em Rio Maior). Estes contratos caracterizam-se pela ausência de risco comercial para o operador, ou seja, o operador é pago pelo município em função do serviço que presta, revertendo a receita do tarifário para o município. [Diagnóstico Estratégico, p. 143]	Daí a necessidade de se identificarem ofertas culturais que representem adequadamente o Oeste e Vale do Tejo, que induzam retornos em termos de reputação, notoriedade e prestígio e que sejam capazes de induzir fluxos económicos diversos e de otimizar a capacidade de gerar receitas. [Diagnóstico Estratégico, p. 49]

Surplus of spaces and buildings

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ A importância dos alojamentos vagos demonstra, por um lado, um maior desajustamento entre oferta potencial e a procura de habitação, e por outro, um peso significativo de alojamentos devolutos, sem qualquer utilização. [Diagnóstico Estratégico, p. 81] ▪ Com esta pressão construtiva vieram os alojamentos devolutos (cujo mercado imobiliário já não consegue dar uso), a degradação da cidade antiga e/ou histórica e a descaracterização de algumas periferias urbanas. Por outro lado, sobretudo junto à praia, por vezes no campo, ou junto a um pequeno aglomerado urbano, a habitação de uso sazonal ou secundário derramou-se também. (...) Derivando daqui, pode-se sugerir dois padrões de povoamento habitualmente contrastantes, numa escala micro territorial, que servem de exemplos extremos para orientar o debate das futuras opções: podemos caminhar para um policentrismo denso, organizado em torno de um conjunto de centros relativamente densos e funcionalmente mistos; podemos caminhar para um policentrismo extensivo, em que há uma multiplicidade de povoamentos isolados, geralmente monofuncionais e de fraca densidade e com maiores custos ambientais. (...) importância dos alojamentos vagos demonstra, por um lado, um maior desajustamento entre oferta potencial e a procura de habitação, e por outro, um peso significativo de alojamentos devolutos, sem qualquer utilização. [Sistema Urbano e Equipamentos, pp. 23-24] ▪ No que respeita às tendências mais significativas, merecem destaque as seguintes: um aumento do desajustamento entre a oferta potencial e a procura de habitação bem como do peso de alojamentos devolutos, sem qualquer utilização; [Sistema Urbano e Equipamentos, p. 68]	▪ No desenvolvimento urbano deve-se procurar aproximar a oferta da procura, consagrando a habitação uso dominante na cidade existente e emergente. Neste sentido, é necessário compatibilizar a política de habitação local com as previsões em matéria de mercado de habitação. A política local de habitação tem de ser baseada no conhecimento da procura e da oferta, tendo em consideração o reabilitado e o novo, o realojamento, a segunda habitação, o turismo residencial, e os utentes de carácter temporário (os emigrantes, os estudantes, etc.). Simultaneamente, deve dar-se uma atenção especial à procura local menos solvente em relação ao mercado. [Sistema Urbano e Equipamentos, p. 19]

Declining purchasing power

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
▪ no statements found	▪ no statements found

Falling property prices

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Slack housing market

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
- Com a pressão construtiva vieram também os alojamentos devolutos (cujo mercado imobiliário não dá uso), a degradação da cidade histórica e a descaracterização das periferias urbanas. Por outro lado, junto à praia ou no campo, ou junto à cidade, a habitação de uso sazonal ou secundária derramou-se também. Esta expansão urbana exigiu e consumiu espaço. [Diagnóstico Estratégico, p. 79] - Estrangulamentos: _ Forte presença de alojamentos vagos na Lezíria e no Médio Tejo demonstra, por um lado, o desajustamento entre a oferta e a procura habitacional, e por outro, um peso significativo de alojamentos devolutos, sem qualquer utilização. _ Peso significativo de alojamentos em edifícios com 1 alojamento, em toda a Região, parece indiciar uma dispersão do tecido construído. _ Em termos de problemas habitacionais, alguns concelhos mostram situações preocupantes, em termos regionais, relativamente aos níveis de sobreocupação e à presença significativa de alojamentos devolutos. _ Níveis de degradação do edificado significativos. _ Persistem na Região concelhos que ainda não resolveram as necessidades de infra-estruturação básica (água, electricidade, esgotos, instalações sanitárias e cozinha). [Sistema Urbano e Equipamentos, p. 31] - Ameaças: Dinâmica de construção associada à extensão da mancha residencial ou à realocação de actividades consumidoras de espaço, constroem uma periferia desqualificada e descaracterizada. [Sistema Urbano e Equipamentos, p. 31]	- Através desta opção, são apresentadas diversas disposições no sentido de concretizar medidas para implementar uma política de cidades e de acesso à habitação, propondo-se acções para a valorização dos recursos do território, bem como se ambiciona a coerência e eficiência dos instrumentos de gestão territorial incentivando à conclusão do quadro dos instrumentos de ordenamento e de desenvolvimento territorial previsto no contexto jurídico actual. [Proposta, p. 157] - Incentivar a adopção de medidas de eficiência energético-ambiental no parque edificado, com especial enfoque na reabilitação urbana e na habitação social [Proposta, p. 226] 3. Contenção, proporcionalidade e programação das áreas urbanas. Adequar o dimensionamento e a estruturação do solo urbano com as necessidades existentes e previstas, considerando os diversos tipos de procura em termos de habitação, actividades económicas e outras funções urbanas e assegurar a sua execução programada. [Proposta, p. 238] c) Proibir a edificação isolada para fins de habitacionais em solo rural, excepto para residência própria e permanente dos agricultores e desde que verificados cumulativamente os seguintes requisitos: [Proposta, p. 241]

Cumulating social problems

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	3) incentivar a diversificação e o reforço do tecido económico e social das zonas rurais e contribuir para a melhoria da sua qualidade de vida. [Diagnóstico Estratégico, p. 60]

Decreasing population heterogeneity and growing segregation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
Estas dinâmicas, ao conjugarem-se, resultam numa homogeneização de valores e comportamentos sociais, que constituem ameaças à identidade cultural do meio rural e ao enfraquecimento dos laços de solidariedade familiar e de vizinhança, conduzindo à emergência de problemas sociais, tradicionalmente urbanos. [Diagnóstico Estratégico, p. 60]	no statements found

Increasing crime incidence

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

Death of social life, of public sphere, source of creativity and innovation

ANALYSIS/POLICY STATEMENTS	GOALS AND IMPLEMENTING RULES
no statements found	no statements found

MUNICIPALITY:	Oeste e Vale do Tejo
DOCUMENTS REVIEWED:	Resolução do Conselho de Ministros n.º 30/2006 de 23 de Março – Plano Regional de Ordenamento do Território do Oeste e Vale do Tejo (PROT-OVT) PROT-OVT – Diagnóstico Estratégico Versão para Discussão Pública (Junho 2008) PROT-OVT – Relatório Versão para Discussão Pública (Junho 2008) PROT-OVT – Sumário Executivo Versão para Discussão Pública (Junho 2008) PROT-OVT – Diagnóstico Estratégico/Visão Sectorial: Estrutura Regional de Protecção e Valorização Ambiental (Março de 2007) PROT-OVT – Diagnóstico Estratégico/Visão: Sistema Urbano e Equipamentos (Maio de 2008) PROT-OVT – Diagnóstico Estratégico/Visão: Sistema de Transportes (Maio de 2008) PROT-OVT – Programa de Execução Versão para Discussão Pública (Junho de 2008)

Urban Shrinkage Characteristic Barreiro	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic		X		
Sinking population density				X
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings	X			
Declining purchasing power			X	
Falling property prices				X
Slack housing market	X			
Decreasing population heterogeneity and growing segregation		X		
Cumulating social problems			X	
Increasing crime incidence			X	
Death of social life, of public sphere, source of creativity and innovation		X		

Urban Shrinkage Characteristic Elvas	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic				X
Sinking population density				X
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings				X
Declining purchasing power				X
Falling property prices				X
Slack housing market			X	
Decreasing population heterogeneity and growing segregation				X
Cumulating social problems				X
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

DIAGNOSIS

Urban Shrinkage Characteristic Espinho	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic	X			
Sinking population density			X	
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings		X		
Declining purchasing power				X
Falling property prices				X
Slack housing market	X			
Decreasing population heterogeneity and growing segregation				X
Cumulating social problems			X	
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

Urban Shrinkage Characteristic Lamego	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic				X
Sinking population density				X
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings				X
Declining purchasing power				X
Falling property prices				X
Slack housing market				X
Decreasing population heterogeneity and growing segregation				X
Cumulating social problems				X
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

Urban Shrinkage Characteristic Lisbon	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic		X		
Sinking population density			X	
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings		X		
Declining purchasing power			X	
Falling property prices				X
Slack housing market	X			
Decreasing population heterogeneity and growing segregation			X	
Cumulating social problems			X	
Increasing crime incidence			X	
Death of social life, of public sphere, source of creativity and innovation			X	

Urban Shrinkage Characteristic Matosinhos	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic				X
Sinking population density				X
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings				X
Declining purchasing power				X
Falling property prices				X
Slack housing market				X
Decreasing population heterogeneity and growing segregation				X
Cumulating social problems				X
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

DIAGNOSIS

Urban Shrinkage Characteristic Oporto	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic		X		
Sinking population density			X	
Over dimensioned and underutilized infrastructure			X	
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings			X	
Declining purchasing power				X
Falling property prices				X
Slack housing market	X			
Decreasing population heterogeneity and growing segregation				X
Cumulating social problems		X		
Increasing crime incidence			X	
Death of social life, of public sphere, source of creativity and innovation			X	

Urban Shrinkage Characteristic Tomar	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic				X
Sinking population density				X
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings				X
Declining purchasing power				X
Falling property prices				X
Slack housing market			X	
Decreasing population heterogeneity and growing segregation				X
Cumulating social problems			X	
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

Urban Shrinkage Characteristic Vila Franca de Xira	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic		X		
Sinking population density			X	
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings		X		
Declining purchasing power				X
Falling property prices				X
Slack housing market		X		
Decreasing population heterogeneity and growing segregation		X		
Cumulating social problems		X		
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation			X	

DIAGNOSIS

Urban Shrinkage Characteristic Northern Region	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic		X		
Sinking population density		X		
Over dimensioned and underutilized infrastructure		X		
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings				X
Declining purchasing power			X	
Falling property prices				X
Slack housing market	X			
Decreasing population heterogeneity and growing segregation		X		
Cumulating social problems		X		
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

Urban Shrinkage Characteristic Metropolitan Area of Lisbon	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic	X			
Sinking population density			X	
Over dimensioned and underutilized infrastructure				X
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues			X	
Surplus of spaces and buildings	X			
Declining purchasing power	X			
Falling property prices				X
Slack housing market			X	
Decreasing population heterogeneity and growing segregation		X		
Cumulating social problems		X		
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

Urban Shrinkage Characteristic West and Tagus Valley	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic		X		
Sinking population density		X		
Over dimensioned and underutilized infrastructure			X	
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings		X		
Declining purchasing power				X
Falling property prices				X
Slack housing market		X		
Decreasing population heterogeneity and growing segregation			X	
Cumulating social problems				X
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				

Urban Shrinkage Characteristic Alentejo	Excellent	Needs Improvement	Poor	Not Addressed
Population decline and other related demographic		X		
Sinking population density		X		
Over dimensioned and underutilized infrastructure			X	
Higher transaction and per unit costs of public services				X
Smaller tax base and declining tax revenues				X
Surplus of spaces and buildings				X
Declining purchasing power				X
Falling property prices				X
Slack housing market		X		
Decreasing population heterogeneity and growing segregation		X		
Cumulating social problems				X
Increasing crime incidence				X
Death of social life, of public sphere, source of creativity and innovation				X

DIAGNOSIS