

# RESER2015

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The 25th Annual RESER Conference

“Innovative Services in the 21st Century”

## Proceedings



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Industry Track: What creates successful Service firms? Experiences from different countries and models to follow

NOT INCLUDED IN PROCEEDINGS

# Between the centre and the margins: Services location, economic (re)structuring and quality of life in metropolitan periurban areas

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- **draft version** - please do not quote without contacting the authors -

*This paper aims to discuss the specificities of the role of services in the economic structuring and in the social liveliness and attractiveness of periurban areas. Drawing upon on the result of an empirical work developed in 5 different parishes of Lisbon Metropolitan area, which represent five categories of periurban spaces previously identified, it is analysed the role of services in these “in-between” territories and the way they are important in the spatial economic structuring of these areas and in the quality of life and well-being of their inhabitants and users. A tentative typology for framing the analysis of the role of services on periurban metropolitan spaces is suggested and some policy implications are pointed out.*

## 1. Introduction

The aim of this paper is to discuss the specificities of the role of services in the economic structuring and in the social liveliness and attractiveness of periurban areas, drawing on an empirical work developed at Lisbon Metropolitan Area (LMA).

Periurban areas present specific characteristics in terms of the competitive factors they develop to attract economic activities, users and residents, which make them special in terms of contemporary metropolitan contexts. Specific types of economic activities and specific branches within economic value chains (from logistics to agriculture, from proximity services to KIBS, from clean energy supply to specialized exported oriented businesses, from specific touristic branches to environmental protection services)

find their place in these areas, and services have a fundamental role on it. At the same time, the social restructuring of these areas, marked by increased territorial and social mobility(ies), and permanent identity challenging processes, is intimately marked by these service activities, that, on one hand, condition the attractiveness of residents and users, but on the other hand, are the result of these new social composition and the fruit of the re-composition of the needs of that population.

The role of services in these “in-between” territories and the way they are important in the spatial economic structuring of these areas and in the quality of life and well-being these areas provide are clearly understudied, and this paper’s objective is to problematize that issue, drawing on the result of an empirical work developed in five different parishes of Lisbon Metropolitan area, which represent five distinct categories of peri-urban spaces, previously identified.

Next section introduces the framework in which this paper was developed (the PERIURBAN research project), its main phases, and the methodology used in the part of the research that was mobilized for this article. In section 3, a discussion on the structuring and dynamics of periurban spaces is held, and the main characteristics of LMA periurban area (and of the 5 parishes studied) are presented. Section 4 provides a more focused discussion on the role of services in LMA periurban, and presents a tentative typology of services regarding the general analysis of periurban territories. A brief concluding note refers to the issue of policy implications, in terms of territorial planning policies.

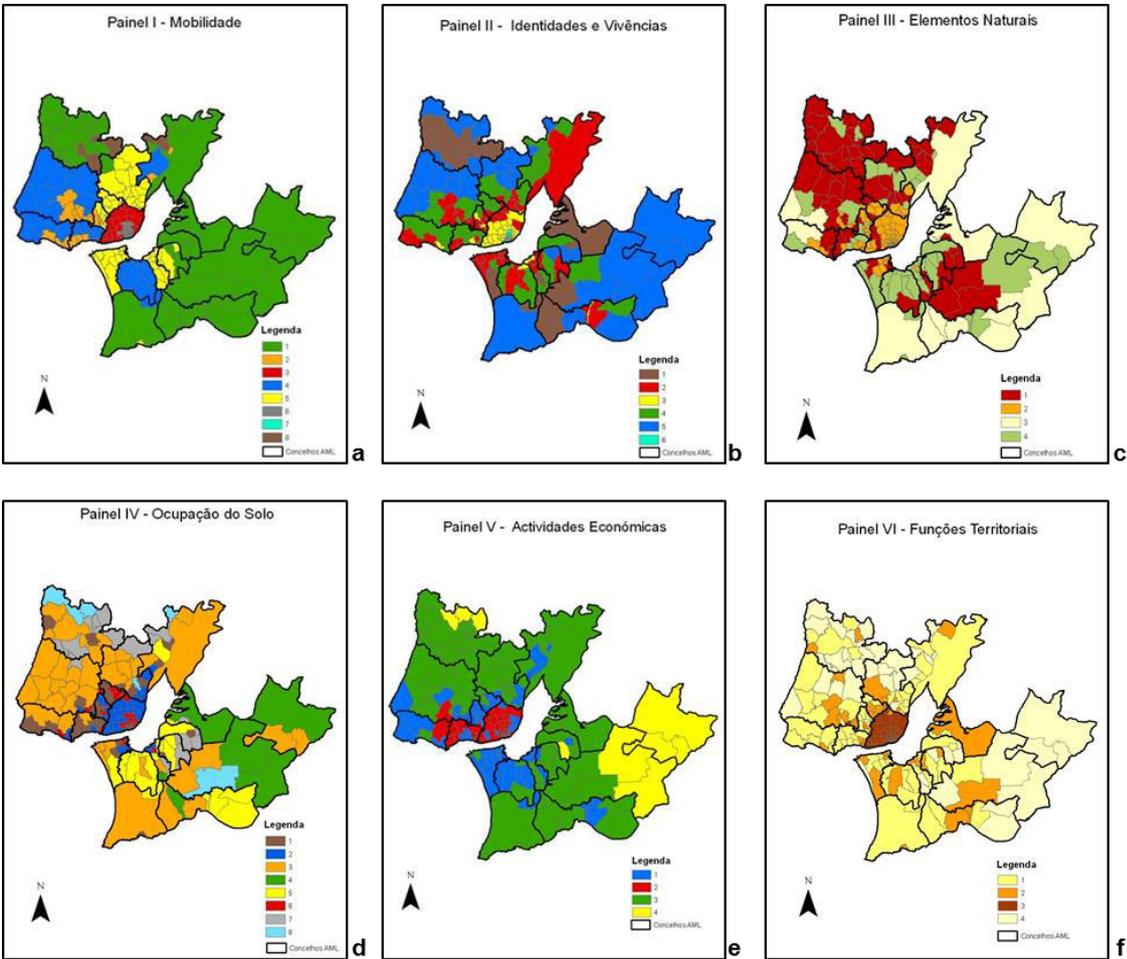
## **2. Context and methodology**

The paper is developed under the broader scope of a funded research project on the challenges that periurban areas of Lisbon Metropolitan Area face to achieve sustainability, the PERIURBAN project<sup>1</sup>). The main goal of this project, involving different Portuguese universities, crossing academic fields and integrating the knowledge of stakeholders from diverse institutional and territorial (local and regional) backgrounds, is to assess the potential of periurban areas to meet future challenges for sustainable development in a changing world. It aims to look in-depth into the periurban areas of Lisbon Metropolitan Area with their physical, environmental, social, economic and institutional characteristics, using a prospective approach.

<sup>1</sup> “Peri-urban areas facing sustainability challenges: scenario development in the Lisbon Metropolitan Area” [PTDC/AUR-AQI/117305/2010] funded by Portuguese Science and Technology Foundation (FCT).

In the first phase of the project a typology of periurban spaces in the Lisbon Metropolitan area has been identified, starting from a thorough diagnosis, at six different levels (Mobility; Identities and Experiences; Natural Elements; Territorial Functions and Topology; Occupation; Economic Activities), which made it possible to map, based on a cluster analysis, a set of different types of parishes in AML, among which we have defined 5 types of periurban territories (cf. Gonçalves et al, 2015, for details). Figure 1 shows the typology of periurban territories resulting for each of those 6 analytical levels, and figure 2 presents the final typology of periurban spaces which resulted from the integration of those 6 dimensions and clusters analysis.

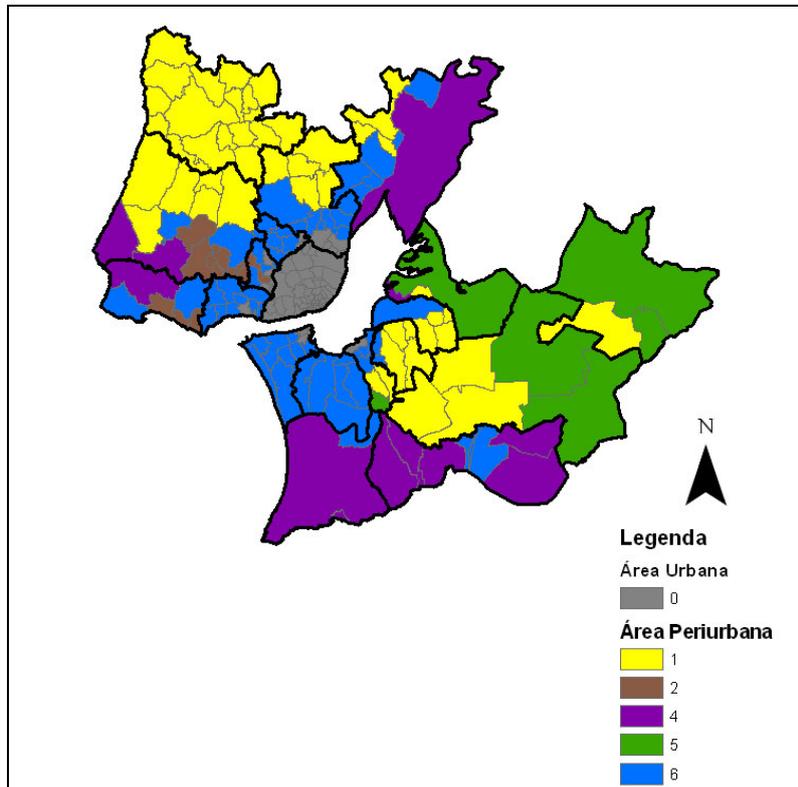
Figure 1: Typologies of periurban territories in LMA, in each of the 6 analytical dimensions



Source: own elaboration (PERIURBAN project)

Five different types of periurban were identified (Figure 2), plus one category of more “pure” “urban” space, which was discarded of our analysis. Details on the characteristics of each of these 5 types of periurban spaces can be found in Gonçalves et al (2015).

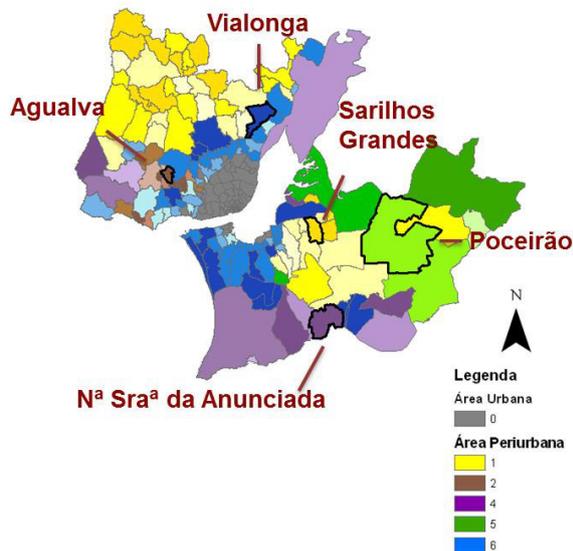
Figure 2: Final typology of periurban territories in LMA



Source: own elaboration (PERIURBAN project)

In a second phase of the project, and drawing upon a more detailed analysis, based on quantitative and qualitative methodologies (including, but not limited to, interviews, the application of a survey and a discussion of visual material recollection on the territories concerned), we proceeded to an in-depth study of 5 parishes which were assumed as representative of each of these clusters (Nossa Sra. da Anunciada; Sarilhos Grandes; Poceirão; Vialonga and Aqualva – cf Figure 3), considering the challenges to the sustainability of these territories within the timeframe given by the project, based on a characterization of the current situation and a discussion with local stakeholders on scenarios for its future development.

Figure 3: Selected parishes (“parishes-type”, representative of each typology):



Source: own elaboration (PERIURBAN project)

This analysis was based on an in-depth evaluation carried out at five distinct levels, which constitute what we've called "the pentagon of sustainability": the "physical" system; the "ecological" system; the "social" system; the "economic" system; and the "institutional" system. For each one of these "systems" a methodology was developed in order to access the conditions for sustainability in that particular field, and specific analytical tools were put in practice.

In this paper, we focus specifically merely on part of the results obtained on this second phase of the project, namely, in just two of those five analytical dimensions: the "economic" and the "social".

Based on the information collected via interviews (with 50 selected stakeholders, e.g. local and regional administration, associations, businesses, schools, employment centers, firefighters), survey (applied to 600 individuals, with a stratified sample, in the 5 parishes) and visual recollection (observation with a photographic approach, involving 2 days of observation, 7 specific points at 3 times slots in each parish), and crossing these 3 methodological sources (also with the second-order information recollected statistical data, information from municipalities and parishes, planning documents, etc.), a discussion is made in order to stablish a profile of periurban services, and to inquire the way services condition and (re)produce the economic (re)structuring patterns and identity(ies) and quality of life in metropolitan peri-urban areas.

### **3. Periurban territories and metropolitan (re)structuring**

#### **3.1. In-between spaces: periurban between centres and the margins**

Periurban territories, particularly the metropolitan ones, can be seen as "in-between" spaces, mixing and making the transition between urban and rural economic forms of organization, as well as social and cultural practices, attitudes, values and identity construction aspects. This can be reflected on a variety of declinations in the production-consumption systems, in lifestyles, in identities and, generally, in all social, cultural and economic processes, which make these areas also interesting spaces of heterotopy and liminality.

The specificities of these spaces are clearly understudied and often are underestimated due to the visibility of the globalization processes and the competitive processes between agglomerations (e.g, amongst metropolises, or among these and smaller towns) to attract residents, users, tourist or economic activities. But the specific competitive advantages of these periurban areas should be examined more thoroughly, as they are important in the contemporary intra-metropolitan (re)structuring processes as well as in the potential these areas can provide in the external affirmations of those territories, at economic, social, cultural or ecological levels, for instance.

The changing pattern of population occupation, settlement characteristics, economic activities or social practices observed in these areas, can be observed both in what relates to economic activities as socio-cultural and identities construction (beside physical, ecological, and morphological dimensions, or other that are not the specific concern of this article).

Considering economic activities, periurban territories are characterized by complementary relations between urban and rural systems. This links result from the flow of products, information and people as from the connections between sectors related to agriculture, manufacturing, and services (Pradoto, 2012). This is expressed in a complexification and mixing of the traditional accounting "sectors" which increases a "smoke screen" on the economic structure of these spaces, where various kinds of services are clearly underestimated: 'The flow of goods, people, capital, and economic sectors overlap at both household and wider levels creates reciprocal linkages between agriculture, manufacturing, and service as part of the urbanization' (Tacoli,1998).

Pradoto, (2012) argues that there are three main processes modelling the transformation of rural-urban economy, including: (i) the relocation of manufacturing and service industries in peripheral areas of the city due to lower rent prices that, in turn, attracts people to leave the city and reside in periurban areas; (ii) the declining of local employment, forcing young people to migrate out and engage in non-farm work; and (iii) the demand of middle class for a better quality of life by residing in a green environment in the peripheral zones.

Periurban is influenced by both rural and urban dynamics. The influence of a metropolitan area is expressed by continuing investments in peripheral areas that offer sources of labour and land. The presence of industries, services, logistics and distribution platforms, SEZ (Special economic zones) enterprises, housing, big store chains etc. constitutes physical manifestations of this realm. Plus, and in parallel, the coexistence of a rural – agriculture matrix establishes a hybrid territory where distinct activities occur like the one related to agro-industrial, distribution but also to food subsistence and pluriactivity, etc. This complex set of conditions defines distinct degrees of specialization/diversity of the economic tissue. The analysis conducted during the first phase of this project, acknowledges this economic diversity, including the issues of the specialization and diversification of economic activities (creating a clearly fragmented economic mosaic), the special presence of agriculture and related business and industry, and the attractiveness to new activities and real state development (cf Ferreiro et al, 2015 for details).

But these “in-betweenness” can also be seen regarding identities and lifestyles, which are intimately interrelated to territorial recomposition processes. Considering peri-urban spaces as 'in transition' and strongly marked by social and territorial recomposition, a 'flows-based' approach was adopted in order to address the 'processes of rapid economic, sociological, institutional, and environmental change' that occur in these territories (Marshall et al, 2009). Understanding inherent social dynamics in LAM, led us to the identification of trends/characteristics through the use of static and dynamic indicators. This approach made possible the distinction between urban centre and peri-urban territory, but also the identification of types of peri-urban spaces with diverse social character. Considering peri-urban as an interface of social/territorial metamorphosis, imminently 'fragmented', and composed of changing communities with distinct identities, it was necessary to translate the fragmented territorial and social mosaic (as it's inner 'movement') in a geographic image of attributes and trends. Portuguese Census (2001 and 2011) information and other quantitative data sources enabled the characterization in social terms (cf. Ferreiro and all, 2015) considering several dimensions: population growth and composition; residential mobility and social diversity; family types; types of housing; territorial reconfiguration; spatial inequalities; community relations).

This process allowed us to understand better the processes and interdependencies that may express what can be called of 'peri-urban' (Berger, 2004), giving us some preliminary hints on how to disentangle this relation between territorial restructuring, identity and community relations on those transitional spaces (cf Ferreiro et al, 2015 on this).

The social restructuring of these areas, marked by increased territorial and social mobility(ies), demographic and sociocultural change, and permanent identity challenging processes, is intimately marked by the service activities, that, on one hand, condition the attractiveness of residents and users (as amenities which are increasingly required by larger segments of population), but on the other hand, are the result of these new social composition and the fruit of the re-composition of the needs of those populations.

### **3.2 . The periurban in LMA: growing attractiveness in a metropolitan restructuring context**

The attractiveness of the periurban areas is stated in the specificity that these can offer between an "urban" territory in progressive expansion and a "rural" in transformation and reconfiguration. This is particularly visible and complex in metropolitan areas, such as the one studied. In situ urbanization dynamics coexist with the "oil-stain" expansion of the urbanization process, in a framework in which the dynamics of mobility and accessibility have a key role in the expansion of economic activities for the urban peripheries, which were progressively structuring the territorial occupation. This expansion, clearly visible throughout the 20th century in Lisbon Metropolitan area, both in the North as in the South banks of Tagus River, along the main road and rail routes (and, in recent years around new axes, as the one defined by the Vasco da Gama bridge), marked the demographic expansion to the peripheries, successively in a 1st, 2nd and 3rd crowns around the centre. This entailed the relocation of support services to all these populations, and a dynamic economic activity of proximity (small commerce and support services to families, in areas such as food and restauration, aesthetics, health, leisure, car equipment and repair, as well as small business support services - accounting, informatics etc.), which was gradually spreading across the territory, in addition to activities associated with construction and building activity and with residential equipment cluster (household equipment, furniture, gardening, ...). The centres of the residential agglomerations and small settlements, some more traditional, other more modern, were thus progressively consolidating its economic role as providers of services to nearby surrounding, of variable dimension (i.e., with a diversity of hinterlands).

On the other hand, along the same routes, the offer of more "heavy" economic activity, be it industrial oriented, or be it (mostly) in the field of the

activities related to logistics, distribution, storage or wholesale, exploring the benefits of accessibility, and the cheaper costs of land and labour, was structuring according to the specific competitive advantages of each territory (from the existence of natural resources, as in the case of extractive industries, to the locative centrality with regard to export channels, or the ease of obtaining manpower available, for example). This process gets a supplementary impulse with the economic dynamics related to contemporary globalisation processes, having these spaces often a capacity of global hyper-connectivity that is result from the combination of exogenous and endogenous competitive factors that can be mobilized in the face of its metropolitan location and the resulting advantages of scale and connectivity (see for example the case of "Auto-Europa", the country's largest exporter, or others). New centres were developing in such a process, for instance technological and industrial parks, logistics poles, spaces for energy infrastructures, or shopping malls of relative large dimension, polarizing a more specialized trade, throughout the metropolitan area, these days. The existence of physical space transforms easily these periurban areas in a "platform" for strategic regional investment (when not even national or transnational), functioning as a pool for new specialized activities, infrastructure and housing, what ends up reflected in land price pressure and, often, in real estate speculation, which may be more or less articulated with the local or regional planning logics.

In parallel, activities focused on the direct exploitation of more traditional territorial resources (in particular farming and agro-industrial activity, and also fishing), as well as the exploitation of the touristic resources (in particular those associated with seasonal and weekend spend and secondary residences), but also, increasingly, to leisure and to the use of protected and preserved areas) were adapting to this profile of transformation, co-existing and competing with it, and providing services more or less specialized (albeit often seasonal) to a floating population that uses regularly these areas. In the case of agricultural activity, which is striking in the occupation of the soil in much of this periurban territory, the progressive co-existence with other activities and the pressure of the real estate market have led not only to a loss of land for other activities, but also, in cases where the component "rural" is still as dominant, to an increase of the plural-activity of farmers, to the abandonment of land, or to the recourse to subsistence farming familiar. These are phenomena that develop in parallel, conversely, to the intensification of more focused and intensive-production specialized activity and to the conjunction with the agro-industry, clearly market-oriented, as well as in more punctual exploration of new production and distribution mechanisms and market niches (organic farming, short circuits, etc.).

The fragmented economic mosaic that characterizes Lisbon's metropolitan periurban fabric is therefore defined in a constant tension between diversification and specialization, in each concrete space, in which the various competitive factors gain shape and provide opportunities for the location (sometimes temporary, others more definitive) of various activities, in

conjunction (more or less achieved, depending on the specific cases) with the more traditional activities and occupations of those same spaces.

Considering the five parish-type we analysed, this pattern is clearly noteworthy, as much as some of these typical activities of the current peri-urban fabric (the big shopping centre, the industrial and logistic pole, the technological pole) can be sometimes outside of the physical border of these parishes (though on a substantial physical, affective and symbolic proximity).

Therefore, generally coexist in these spaces, on the one hand, highly specialized activities, with very large hinterlands (which can be of large size, such as beer in Vialonga, cement in N<sup>a</sup> Sra da Anunciada or some wine production in Poceirão; but also of smaller dimension, as the highly internationalized flower industry of Sarilhos Grandes, or even informal – and illegal - fishery activity in the same parish), and on the other hand, a very diverse range of activities, essentially services, which can be more or less specialized (provided for residents of and/or businesses), or small-scale commercial activity and logistics, with highly variable hinterlands (mostly in the cases of N<sup>a</sup> Sra da Anunciada and Agualva).

This proximity economic fabric, striking in all the parishes, in some cases is more concentrated around the main urban areas and major roads (Sarilhos Grandes, Poceirão, and even Vialonga), but in other cases is more decentralized and is based on a multiple polarization within the parish (mainly in N<sup>a</sup> Sra da Anunciada and Agualva).

Some particularities mark, apart from this, the profile of each of the territories analysed, which we will present briefly in the next section.

### **3.3. The five “parishes-type”: five examples of an evolving peri-urban socioeconomic structure**

#### a) Agualva

Economic activities in the parish of Agualva are essentially related to the small local commerce and services associated with the high population density and the housing market, which can be considered the predominant. There are also some industrial poles with a certain dimension, such as the one at Colaride, where the presence of a pharmaceutical industry small cluster stands out. The factors of attractiveness of the parish are related to its location near the metropolitan employment centres (Lisbon) and exporting flows, the rail and road access (IC19/A16/Sintra railway line), the low value of the soil, the availability of space and the human capital represented by a volume of population of 80 thousand inhabitants.

Yet, there are problems related to the commuting flows associated with job polarization in the city of Lisbon, since the cost of journeys to other parishes of the municipality of Sintra is higher than the cost of travelling to the capital. The parish is thus a dorm-territory where there have been progressive processes of urban decay, combated using public investment programs for requalification (e.g., POLIS-Cacém), trying to induce a new push in the housing market and in private investment. The construction of a range of more consistent competitive advantages to attract activities with higher hinterlands is particularly important in the face of competition from several other territories in the surrounding parishes, both in the municipality of Sintra as in Oeiras (including Taguspark science and technology pole, nearby).

#### b) Vialonga

Vialonga presents some diversification in its economic fabric, with the co-existence of economic activities related to logistics and distribution, industry, hypermarkets and a lively housing market, to which are associated the local proximity commerce, the provision of services, or the social economy. In logistics and distribution stands out the presence of companies like DHL, in industry, Central de Cervejas (largest employer of the parish), as well as the catalyser presence, in the neighbouring parish, of the MARL (Lisbon region supply Market), with very significant effects on local economic activity; in the housing market, the presence of companies related to the construction of recent residential neighbourhoods that have streamlined the local trade and services. The existence of social housing neighbourhoods and socio-economic difficulties led also to an important presence of the social economy sector.

The factors of attractiveness of the parish are related to its location (near the A1, A8, CREL highways), the proximity to the supply centres in the area of large distribution and wholesale, the advantageous soil value, the presence of important complementary commercial relations (e.g. MARL with distribution and logistics companies), as well as the existence of human resources with some level of qualifications (lower rate of unemployment in the municipality of Vila Franca de Xira). The area has also endogenous resources that give interesting competitive advantages, such as high-value soils, in ecological terms, in the area of "várzea de Vialonga" (currently existing conflicts between the occupation for new companies and their protection and utilization for agricultural production), geological resources (quarrying) and energy assets (solar and wind). The parish counter-cyclically increased its economic dynamism between the first half of 2011 and 2014, slowing down from that time for reasons of national economic crisis. The current development constraints relate mainly to the conjunction between residential and business and to the conflict between the occupations of areas of high ecological value for new investments. Al-

so in the housing market, the foreclosures for inability to pay loans are driving to a certain retraction.

### c) Nossa Senhora da Anunciada

Nossa Senhora da Anunciada is a parish which has part of its territory inserted in the city of Setúbal and the other corresponds to a rural area under the jurisdiction of the natural park of Serra da Arrábida, being also marked by an extensive riverfront and seafront. This allows understanding well the parish in terms of the diversity of existing economic activities. The fact that of being located in the urban context, in a region capital (Setúbal city), boasts central functions expressed through the presence of district hospitals, court, social security, regional services, etc., which are important sources of employment, as well as enhance the polarization of some private economic activity, in the fields of trade and services, with supra-local hinterlands.

The economic fabric in the urban context of the parish is, nevertheless, mainly characterized, above all, by the importance of local trade, standing out the restaurants, bars and shops associated with local products (fish, wine, cheese, etc.) the nightlife establishments (bars, clubs) and the services (although some of them polarize a market which corresponds, at least, to the whole of the city, and not only to the parish). Industrial dynamism associated to natural resources (SECIL cements) or the presence of infrastructure (port of Setúbal) can be also immediately identified. In its rural area, the farms of rural tourism, small enterprises of production of wine, cheese and butter, and subsistence agriculture stand out. The presence of the sea, the fishing port and fishermen's cooperatives determine also an important part of the fishing activity in local economy (in conjunction with catering establishments) and the informal dynamics associated to these. Tourist activities associated with the natural and cultural heritage of the parish are also emerging, as expressed by the opening of some hotels, new rural farms touristic facilities, the development of maritime activity-tourism, or Arrábida's candidacy to world heritage. There is a local government effort to promote the regeneration of the riverfront, rehabilitating industrial zones and brownfield areas, and installing new equipment capable of regenerating the urban context and attract foreign visitors. The tourism associated with local activities and local heritage is seen as the main factor of economic attractiveness once there is no more room for allocation of space to industrial activities in the parish (due to legal and regulatory constraints of the natural park).

#### d) Poceirão

Poceirão is a markedly rural parish which corresponds to half of the municipality of Palmela. Agriculture, viticulture, cattle raising and the forestry sector, denoted by the production of cork, are the predominant economic activities of the parish, with some scale and degree of integration both at internal and external markets (e.g. wine). The attractiveness of this territory for those economic activities relates to its flat orography, fertile soils, water availability (largest aquifer of the Iberian Peninsula), the structure of land register, based on large property, the proximity to supply centres on LMA, and the existence of specialized labour and ' know-how ' in those areas of activity.

The endogenous characteristics of its territory also determine its attractiveness in relation to major investments expected (but suspended), such as the Lisbon-Madrid high-speed railway link (TGV), the new Lisbon Airport (NAL) and the logistics platform supposed to be able to increase the hinterland of the ports of Lisbon, Setúbal and Sines. The direction of the economic development of the parish (more agricultural oriented, more related to logistics and transport activity, or a mix of the two) will be so dependent on the future and on the implementation of these (or other) intentions on the part of the Portuguese State. In addition to these activities, a profile of service activities and small commerce, relatively low specialized, marks the local activity, being especially implanted around the axis formed between the village of Poceirão and Lagameças.

#### e) Sarilhos Grandes

Sarilhos Grandes is a markedly rural parish, as the parish of Poceirão, but offers, though, several specific characteristics in respect to its territory which determine also differences with regard to the main economic activities and the attractiveness of the parish. The high degree of land consolidation and enclosure determines the presence of small businesses in the area of intensive agriculture, livestock and greenhouse floriculture. This last with some expression because of the concentration of farms in the parish and in the municipality (due to its particular climate) allow to create scale and to stabilize prices. The accessibility and the IC main road create also a potential for fast transportation to the airport which is important in the trade and export of flowers. Greenhouse production (of flowers, red fruits, etc.) is one of the factors which are most pointed to as a potential for economic development and internationalization of the parish. The accessibility (ease of access to Lisbon) and the low cost of soil

constitute factors of attractiveness; however the parish undergoes the constraints caused by lack of manpower (ageing population) and the small size of the property, preventing the installation of large companies and big investments. Due to the fact that the parish confine with the Tagus river estuary, other economic activities also emerge (often informally), related to the use of local resources (Clams, Eels, etc.) and their consumption, through specialized restaurants some of them polarizing markets with significant areas of influence. The cultural and natural heritage assets are, in fact, singled out as possible factors of development of the parish, regarding the tourism associated with local values.

Sarilhos Grandes is also considered a “passage” territory, being crossed by N10 road, along which proliferate the small industry, services, construction companies and small local businesses, mostly commercial. Employment is provided especially outside the parish. Local employment is predominantly empowered by some proximity services and by agricultural activity, which pays the minimum wage and refers largely to immigrant labour.

## **4. Services, sustainability, and periurban territories**

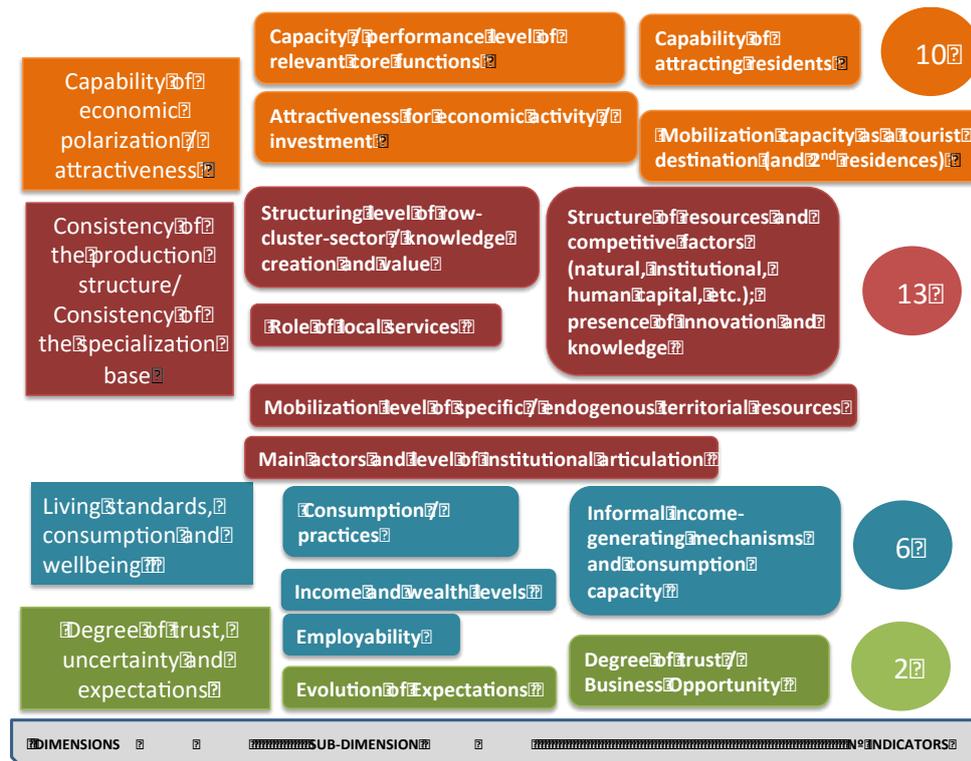
In this section, we look more specifically for services activities, taking in account the results obtained in our project while assessing social and economic sustainability of periurban territories, and aiming to understand the particular role played by the diverse service activities in this kind of spaces.

### **4.1. The dimensions to assess sustainability**

In order to achieve our project objective of accessing sustainability, both in economic and social terms, it was developed a framework which is based in a diversity of analytical dimensions, recurring to a multiplicity of indicators, which were then operationalized recurring to qualitative and quantitative data (using the diversity of sources above mentioned), in the framework of a continuous intense discussion among team members (see Costa et al, 2015a, for details).

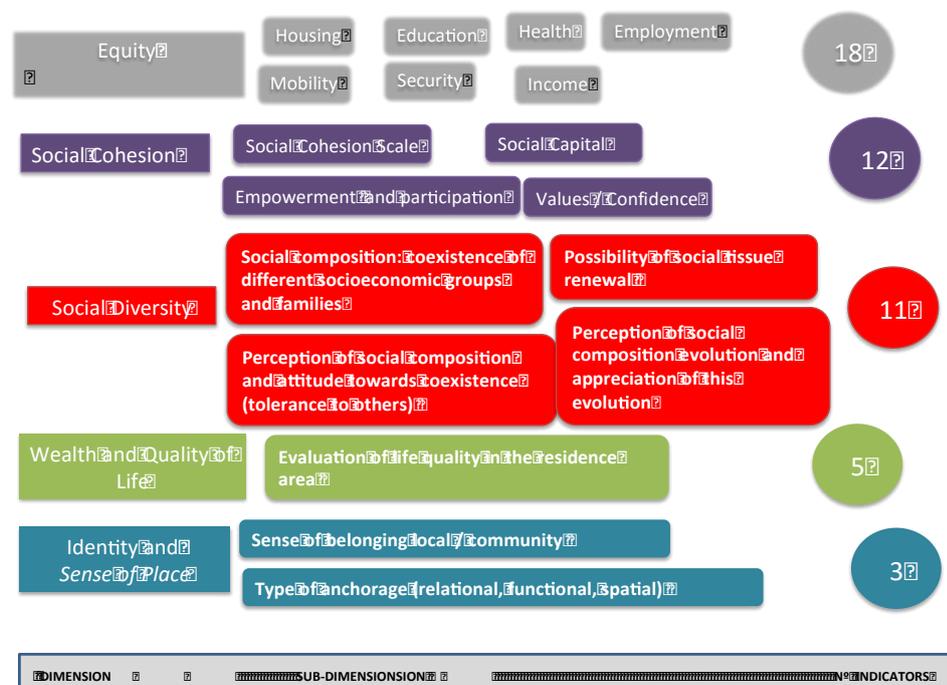
In the case of the assessment of sustainability in economic terms, 4 main dimensions were considered: (i) the capability to polarize economic activity and attract residents, users and visitors; (ii) the consistency of the productive structure and the specialization basis; (iii) the wealth factors, related with living standards, consumption and well-being; and (iv) the expectations-related factors and attitudes towards uncertainty. Each of these dimensions was subdivided in several sub-dimensions which were operationalized in descriptors/indicators. Figure 4 presents the dimensions used for the economic sustainability. A list of all the indicators used is presented on annex A.

Figure 4: Assessment of “Economic Sustainability”: analytical model



Source: own elaboration (PERIURBAN Project)

Figure 5: Assessment of “Social Sustainability”: analytical model



Source: own elaboration (PERIURBAN Project)

In the case of the assessment of social sustainability, five main dimensions were taken into account: (i) the questions related to equity and to the access to services and facilities; (ii) the social cohesion issues; (iii) the question of social diversity and the ways it enhances and conditions social dynamics; (iv) the perceptions of wealth and quality of life; and (v) the issues related with identity and the sense of place. Each of these dimensions was also subdivided in several sub-dimensions which were operationalized in descriptors/indicators. Figure 5 presents the dimensions used in the assessment of social sustainability. A list of all the indicators used is presented on annex B.

Details on the operationalization of this assessment (on both dimensions) and on the results achieved can be consulted in Costa et al (2015a).

## **4.2. The structuring role of services: some examples**

Among the dimensions used for the assessment of sustainability, several can be mobilized to understand the importance of services in the structuring and vitality of these periurban areas. The results of our analysis, drawing upon the results of each specific indicator (cf. Costa et al, 2015a), can give us some hints to recognize this role of services in LMA periurban territories.

Regarding the economic sustainability assessment, it can be seen, mostly, in two of the analytical dimensions considered. On one hand, services are fundamental for the capacity of attractiveness and polarization of these areas. Their role in territorial vitality is evident concerning the capability to play central roles, at different levels (with the most diverse hinterlands, both in private and public sectors), as well as, consequently, by the “amenities” these services generate in terms of attracting residents, tourists or other economic activities. The situation is naturally diverse, through the 5 parishes analysed, according to the central functions concerned, but Nossa Sra. Anunciada (clearly, in the centre of an autonomous town) and, at other level, the more (sub)urbanized ones (Aigualva and Vialonga) seem to stand out, for more specialized functions. On the other hand, services play a fundamental role in the structuring of the economic productive basis and in giving consistence to the productive systems. Concerning this issue, there are a multiplicity of mechanisms through which services can enhance the territorial vitality, including the incorporation of knowledge and economic value in the local productive systems, the supply of additional competitive factors for a particular territory, the part played by the existence of proximity services, or the way they can fuel the seizing of endogenous resources or particular institutional resources. Here, the results are more diffuse, concerning the different processes involved, and some services are in certain cases particularly important in the support to a specific productive specialization (e.g, agro-industrial activities on Poceirão and Sarilhos Grandes, tourism in NS Anunciada, logistics in Vialonga, etc.), and on the other cases important for its diversity in the structuring of “urban” ambience and economic urban life (e.g, Aigualva, or, particularly, N.S. Anunciada). Still in economic terms, services can be also seen as important in the other dimensions used to assess sustainability, more occasionally, for example, in support of wealth and welfare, through the informal economy (e.g Sarilhos Grandes case with the informal trade of clam or other banned shellfish).

Considering the assessment that was made in terms of social sustainability, the relevance of services can also be evidenced. Among the five dimensions which were used for the assessment of sustainability in this field, just some of them are particularly interesting to understand the importance of services, and thus we will centre mostly on those components: equity; well-being and quality of life; and identity and sense of place. In the case of equity, the relation with services is immediate. The existence and quality of provision of services in the diverse fields analysed (e.g, housing, education, health, security, mobility,...) is a fundamental aspect in the access that people have to these components of their lives (and of territorial development), be it based on public or private provision. The results reflect clearly the territorial density aspect, with lower scores in the less “urban” parishes (Poceirão and Sarilhos Grandes). Regarding the issue of well-being and quality of life, services are fundamental for the social satisfaction they provide in these fields. The perception of quality of life in the area of residence by the subjects takes this aspect clearly in account, and the existence of amenities provided by these services is clearly valued in the survey, though very diversely between parishes, accordingly to the diverse aspects which are much valorised, in the residential choices, in each space. Finally, what concerns to identity and sense of place, the importance of services is also indirectly expressed, particularly on the type of anchorage (relational, functional, spatial) that can be inferred from the survey’s results. The importance of functional related aspects, particularly (but also the relevance of other aspects, like the ones linked to nature, environment, or culture, where services can play a particular role), is a sign of the importance of the existence of a variety of services (very diverse from parish to parish, and, also and even mostly, within the territory of each parish) to the construction of identity(ies) and to the development of the sense of place. But even in the others dimensions used for the assessment of social sustainability the importance of services can be seen, more sporadically, such as in the case of the role of (cultural, sportive, political, environmental) associations to the empowerment of populations and enhancement of participation, which is an important feature for social cohesion, for instance.

### **4.3. A typology proposal for understanding services in metropolitan periurban territories**

With these examples in mind, and the notion that we are facing five very different parishes, that are representing five distinct typologies of periurban territories which will have, naturally, their specificities, we can try to extract some regularity and propose a typology which enables us to bring some systematization to this analysis. In effect, despite all this diversity and the natural particularities of each situation, there are some common factors which allow us to try to establish a grid for evidencing the importance (and specificity) of the different types of services in these territories and the challenges services have (and bring) to periurban territories.

Service activities (as well manufacture or agriculture, for instance) are irremediably an artificial and unsatisfying categorization for apprehending the complexity of the contemporary production-consumption chains, and the knowledge incorporation in

good-service continuums (cf. Ferrão, 1992), which incorporate progressively more intangible contents in material goods. Besides, the services label has proven to be a conceptual umbrella for many diverse and highly heterogeneous activities, which are very dissimilar in their economic characteristics (e.g. knowledge incorporation mechanisms, qualifications involved, productivity gains, growth rates) locational structures and geographical dynamics. As Glückler and Hammer (2011) point out, this diversity is usually studied in one of two different ways: or by micro approaches usually conducting case studies within selected service branches in order to reveal the particularities of these activities; or by macro approaches attempting to capture the diversity of services by classifying services into homogenous statistical categories of similar attributes. In spite of the multiple developments on the research and application on service taxonomies, scholars and policy makers still lack pragmatic tools to capture and monitor the importance of these activities on the development of local and regional economies. The profusion of service typologies, often based on idiosyncratic definitions and sometimes incomparable classifications of service sectors (both in academic world and in policy-making and statistic administrations) do not solve this problem. We will not contribute to that here, certainly. But we will try to contribute with a proposal that enable us, and other researchers, to deal with another layer of complexity in all these on-going discussions: the spatial differentiation within the urban-metropolitan spaces, namely considering the specificities of periurban territories.

Glückler and Hammer (2011), drawing upon several precedent debates, suggested what they called a multi-dimensional taxonomic framework meant to deliver a useful differentiation of service types in the economy (a “pragmatic service typology”), which have supported their (quantitative) empirical analysis in several German regions. They have based on three main divides that have been often used to distinguish the diverse types of services: (i) the demand orientation (consumer services vs business services); (ii) the knowledge-intensity (operational services vs knowledge-based services); and the technology intensity (checked by the degree of technology using). With this basis, they operationalized the use of the following 5 analytical categories:

- OCS – operational consumer services
- KICS - knowledge-intensive consumer services
- OBS - operational business services
- KIBS - knowledge-intensive business services
- TKIBS - technological KIBS

It is not our aim, in the scope of this work, to proceed to an extensive statistical approach to this issue as the one made by the authors, as we are well aware of all the problems with it, some of them identified by the own authors, and our purpose is distinct. Our specific interest is in the comprehension of intra metropolitan spatiality of these activities, and specifically, to understand their importance for periurban territories and for that it is essential a more qualitative approach, based on more detailed information.

In that sense, after the analysis developed in LMA and in the five parishes we have studied, we suggest to cross this typology with another 3 axis, which we found structuring for the intra-metropolitan geographical distribution of these activities (and their importance for the affirmation of the respective productive structure):

- a) Locally oriented / externally oriented (related with the demand internal or external to the metropolitan/urban space), dividing the locational aspects, particularly on business services.
- b) Degree of specialization (related to the hinterland of the respective central function), with spatial differential impacts both on knowledge-intensive and operational services, and both on consumer and business services, but selectively attracted by periurban territories.
- c) Collective / individual services (regardless of the public/private provision) (considering the weight of amenities, and particular the service provision of collective goods, with impact mostly on operational and knowledge intensive consumer services).

Not all of them are discriminant to other classifications (e.g, is not so relevant if the KIBS are private or public, for their territorial implementation), so after clearing up, the typology suggested is the one presented in figure 6, which presents also a schematic classification of the relative importance of each kind of services in urban, periurban and rural territories. ,

Figure 6: Typology of services and urban/periurban/rural territories

		Urban	Periurban	Rural
Ind OCS	Individual operational consumer services	+++	++	+
Col OCS	Collective operational consumer services	++	++	++
Ind KICS	Individual knowledge-intensive consumer services	+++	++	
Col KICS	Collective knowledge-intensive consumer services	+++	++	
L OBS	Local-oriented operational business services	+++	+++	++
E OBS	External-oriented operational business services	++/(+++)	+++	
L KIBS	Local-oriented knowledge-intensive business services	+++	++/(+++)	+
E KIBS	External-oriented knowledge-intensive business services	+++	(+++)	
TKIBS	Technological KIBS	+++	(+++)	
S OBS	Specialized operational business services	++	(+++)	(++)
S KIBS	Specialized knowledge-intensive business services	+++	(+++)	(+)

Legend: + to +++ represents intensity degree, readably in line; (+) represents eventually, in specific cases

Source: own elaboration

This tentative typology intends to be a contribution to the discussion. We are aware of the simplifications and limitations of his kind of exercise, but it aims to be a first step to the disentangling of the importance of the diverse kinds of services to the diverse components of metropolitan spaces, and particularly to the identification of the periurban specificities. Certainly other crossings could be presented on the figure 6 and several oversimplifications were made in this brief exercise. It can be further developed and tested in other contexts. For now, we just would like to highlight that this tensions between geographic concentration and dispersion, intra metropolitan space, must also be seen at the light of the specific preferences of particular parts of populations (and economic activities) for specific kinds of amenities, as well as, especially, at the light of specific territorial assets (e.g. tourist or cultural points of interest, natural resources,...), that will be, in each specific situation stronger than several other factors, in the development of certain activities or the provision of (more specialised or banal) services, as we've seen several examples in LMA, particularly when external markets are at stake.

## **5. Concluding note**

This paper aimed to discuss the role of services in the "in-between" territories that periurban metropolitan spaces are. They have a specific importance in the spatial economic structuring of these areas and in the quality of life and well-being these areas provide, and that was shown, drawing upon the results of an empirical work developed in five different parishes of Lisbon Metropolitan area, which represent themselves five distinct categories of periurban territories.

From this analysis it was possible to observe that these territories are able to explore some special advantages of locating between the centre and the margins, attracting residents and economic activity with those competitive assets, and contributing actively to the territorial restructuring of an area that is restructuring itself fastly at economic, demographic, social and cultural terms. We can assume the existence of a peri-urban socioeconomic specific situation, characterized by a diversification of activities and social practices, but also by a diversity of territorial dynamics, which appeals to different forms of intervention regarding nowadays and future challenges of metropolitan areas, including naturally the specific challenges of periurban areas. The typology of services which was suggested is a first contribute to the continuation of this discussion, extrapolating for other realities than LMA.

This should take seriously in terms of policy making and spatial planning, as well in the realm of regional development policies. On one hand periurban territory has specificities that should not be ignored not diluted amidst the challenges metropolitan territories are facing, on its whole, in contemporaneity; on the hand, there are different types of periurban, as shown by our research, which need to be revealed and assumed by policy makers and planners in their decisions. The perception of this diversity may be an important instrument to support a more coherent and realistic decision-making process regarding the enhancement of the sustainability of a territory whose evolutionary pathways are strongly conditioned by planning, governance mechanisms, and territorially management policies, as well as by general driving forces of change in-between local and global processes.

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## Annex A - Economic Sustainability – Evaluation Framework

Dimensions	Sub Dimensions/indicators	Source
a) Capability of economic polarization / attractiveness	1. Capacity / performance level of relevant core functions	Visual Methods
		Secondary Information (INE+CCDR)
		Interview
	2. Capability of attracting residents	Secondary Information (INE)
		Secondary Information (INE)
	3. Attractiveness of economic activity / investment	Interview
	4. Mobilization capacity as a tourist destination (and 2 <sup>nd</sup> residences)	Interview
		Secondary Information (INE)
Secondary Information (Municipalities)		
b) Consistency of the production structure/Consistency of the specialization base  E.g. Specialized production and degree of economic diversity	1. Structuring level of row-cluster-sector / knowledge creation and value	Interview
		Secondary information Ministry of Economy and Employment
		Secondary Information (INE)
		Visual Methods
	2. Structure of resources and competitive factors (natural, institutional, human capital, etc.); presence of innovation and knowledge	Interview
		Secondary Information (Municipalities)
		Secondary Information (INE)
		Secondary Information (Municipalities)
		Visual Methods
	3. Role of local services	Interview
		Secondary Information (Municipalities) + Visual Methods
	4. Mobilization level of specific / endogenous territorial resources - (self-sufficiency) externally - sustainable	Interview + Visual Methods
5. Main actors and level of institutional articulation	Interview	
c) Living Standards, Consumption and Wellbeing	1. Income and wealth levels	Interview
		Interview
	2. Consumption / practices	Visual Methods
		Interview
	3. Employability	Secondary information (INE, Employment Centers)
		Interview
4. Informal income-generating mechanisms and consumption capacity (e.g. self-production, informal exploration of natural resources, etc ...)	Interview	
D) Degree of Trust, Uncertainty and Expectations	1. Evolution of Expectations Individual perception of situational aspects that influence economic activity e.g. investment decisions, (un) employment, ...	Interview
	2. Degree of trust / Business Opportunity (Entrepreneurship) (Evaluating the current crisis and its impacts; funding capability)	Interview

## Annex B - Social Sustainability – Evaluation Framework

	Sub dimension	Indicator	Source
<b>a) Equity</b>	<b>1. Housing</b>	1.1. Weight of housing costs in the family budget	Survey
	<b>2. Education</b>	1.2. Perception of ease access to housing	Survey
		2.1 Perception of ease access to educational facilities of various levels	Survey
		2.2. Time spent on going to educational establishments	Survey
	<b>3. Health</b>	2.3. Education levels coverage	Secondary information (INE)
		2.4. Educational equipment evaluation	Survey
		2.5. Coverage of disciplinary fields within the secondary education	Secondary information (INE)
	<b>4. Security</b>	3.1. Coverage - number of public equipment and valences in health	Survey
		3.2. Public valences in health	Secondary information (Municipalities, parishes)
	<b>5. Mobility</b>	3.3 Perception of easy access to health	Survey
		4.1. Have safety and / or Civil protection with diversity of skills	Secondary information (Municipalities, Parishes)
	<b>6. Employment</b>	4.2. Security Perception (scales)	Survey
		5.1. Public transport network coverage	Secondary information (Municipalities, Parishes)
	<b>7. Income</b>		Survey
		5.2. Cost of commuting in the family budget (or cost of major travel (work / school / other)	Survey
		5.3. Mobility evaluation	Survey
6.1. % Of people registered in the employment center		Secondary Information (Employment Center Data)	
	7.1 Income intervals: Gini index calculation or distribution by income quartiles (unit of analysis-the family)	Survey	

<b>b)Cohesion</b>	<b>1. Social cohesion scale</b>	1.1 Cohesion Scale	Survey
		1.2 Expert perception of social cohesion degree	Visual Methods
	<b>2. Social capital</b>	2.1. Local sociability: type (friendship, cordiality, mutual help)	Survey
		2.2. Perception of conflict	Survey
	<b>3. Empowerment and Participation</b>	3.1. Number of associations, clubs, collectives	Secondary information (Municipalities, Parishes)
		3.2 Participation and interest in intervening in parish related matters: participation in associations, local initiatives; local project initiatives	Survey
		3.3 Types of involvement	Survey
		3.4. Perception of the relationship with local administration (easiness of exposing a subject / solve a problem / degree of access to information)	Survey
		3.5 Perception of associative and civic life	Survey
	<b>4. Values / Confidence</b>	4.1 degree of trust in others and in institutions	Survey Survey
		4.2 perception of homogeneity in values	Survey
		4.3. Heterogeneity and degree of tolerance	Survey
	<b>C) Social Diversity</b>	<b>1. Social composition: coexistence of different socioeconomic groups and families</b>	1.1. Weight of foreign residents
1.2. Structure of qualifications			Secondary information (INE)
1.3. Structure of professions			Secondary information (INE)
1.4. Diversification of family structure			Secondary information (INE)
<b>2. Possibility of social tissue renewal</b>		2.1. Weight of new residents in the population	Secondary information (INE)
		2.2 Change in the demographic structure	Secondary information (INE)
		2.3 Evolution by weight of more qualified people.	Secondary information (INE)

	<b>3. Perception of social composition and attitude towards coexistence (tolerance to others)</b>  <b>4. Perception of social composition evolution and appreciation of this evolution</b>	2.4. Evolution in the weight of most valued professionals.	<b>Secondary information (INE)</b>
		3.1. Perception of social diversity degree	<b>Survey</b>
		3.2 Expert perception of the degree of social diversity	<b>Visual Methods</b>
		4.1. Sense of evolution: homogeneity or heterogeneity	<b>Survey</b>
<b>d) Well-being and quality of life</b>	<b>1. Evaluation of life quality in the residence area</b>	1.1 evaluation of various aspects of the residence area	<b>Survey</b>
			<b>Survey</b>
		1.2. Evaluation of quality of life in the residence area	<b>Survey</b>
		1.3. Evolution of life quality in the residence area in the last 10 years	<b>Survey</b>
		1.4. Perspective of change to improve quality of life	<b>Survey</b>
	1.5. Evaluation of the relation between personal quality of life and local quality of life	<b>Survey</b>	
<b>e) Identity and Sense of Place</b>	<b>1. Sense of belonging local / community</b>	1.1. Degree of identity / local attachment	<b>Survey</b>
		1.2. Expert perception of the "attachment" degree to the local / identity	<b>Visual Methods</b>
	<b>2. Type of anchorage (relational, functional, spatial)</b>	2.1. Types of identity  • Features that give identity to the territory • Type of identity / anchorage with the place of residence  8 dimensions of identity: Environmental Quality; Biodiversity, environment; History and Culture; Social Networks; Genealogy; Functional; Connection to place; homogeneity	<b>Survey</b>

# **D4: Knowledge intensive services: geographic characteristics and development**

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