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INFRASTRUCTURES AND DEVELOPMENT: IMPACTS OF FUTURE PUBLIC PROJECTS ON PALMELA MUNICIPALITY

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Abstract

Palmela is one of Lisbon Metropolitan Area eighteen municipalities and the biggest in extension with 462,8 km². Located on Tagus left-bank, in Setúbal Peninsula sub-region (NUT III), Palmela have been for centuries a rural municipality and more recently, since the 1960's, a periurban and suburban area. Agriculture has been for years the most significant economic activity, nevertheless, industry became the main economic activity, both in terms of product and employment, specially since the working of *AutoEuropa* car factory in the 1990's, which represents around 2% of Portugal's GDP and 10% of the exports. In the next years Palmela will be in the center of the most important public projects and infrastructures to be built in Portugal.

Keywords: Poceirão Logistics Platform; Lisbon New Airport; Tagus River Third Bridge; High-Speed Train; Territory Planning and Development Impacts; Municipal Master Plan.

I - Introduction

Palmela is one of Lisbon Metropolitan Area (LMA) eighteen municipalities, the largest of Setúbal Peninsula sub-region (NUT III) 9 municipalities, with 462, 8 km² (0,5% of the national territory, 15,7% of LMA and 29,6% of Setúbal Peninsula). It occupies a central position in the Setúbal Peninsula, being confined by the following municipalities: to the north by Benavente, northeast by the eastern part of Montijo, east

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by Vendas Novas, southeast by Alcácer do Sal, south by Setúbal, west by Barreiro and northwest by Moita, the western part of Montijo and Alcochete.

The municipality is divided into five “*Freguesias*” (Civil Parishes), with an appreciable degree of heterogeneity among them:

- Palmela: the municipality’s head - is a historic urban center anchored in the Castle, which was for centuries the headquarters of the Military Order of Santiago in Portugal;
- Pinhal Novo: the municipality’s main urban center - corresponds to a suburban town, strongly supported by the railway;
- Quinta do Anjo: cattle/milk and wine area, concentrates the largest and most important industrial areas in the municipality (i.e. *AutoEuropa* car factory, part of *Volkswagen* group, contributes to 2% of Portugal’s GDP and 10% of exports), there are several illegal land subdivisions in process of reconversion (AUGI: *Áreas Urbanas de Géneses Ilegal* - Urban Areas of Illegal Genesis);
- Poceirão and Marateca: rural civil parishes with low population density, importance of the cork oak and the wine industry, more recently has emerged some dispersed and illegal construction.

According to the latest Population Census, in 2001, 53.353 people lived in the municipality. In 2008, according to INE (national statistics institute) estimates, that number would be of 62.820, which means an increase of about 17,7% during this period. On the other hand, the relative weight of Palmela municipality inhabitants in the total population living in Portugal, LMA and Setúbal Peninsula, rose from 0,5%, 2,0% and 7,5%, respectively, in 2001 to 0,6%, 2,2% and 8,0% in 2008.

Over the last years deep changes occurred in Palmela municipality, particularly in socio-economic aspects, network accessibility and urban development dynamics. In socio-economic, stands out immediately the implementation of the *AutoEuropa* project and its impact on employment, both direct and indirect, including through a series of associated companies and subcontractors in a *cluster*¹. As mentioned earlier,

¹ A *cluster*, from an Industrial Economics and Regional Economics and Development point of view, is a concentration of firms that communicate and cooperate between themselves because they share similar characteristics and coexist in the same area, in order to become more efficient. This concept was



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AutoEuropa contributes to about 2% of national GDP and 10% of the exports volume, making it one of the most important economic actors in Portugal.

Figure 1 - Great Public Projects under development in LMA and Palmela



Source: Google Earth (adapted)

The improvement of regional accessibility, combined with a certain saturation of the “*Arco Ribeirinho Sul*” (South Riverside Arc), was a crucial factor in the demographic and urban dynamics of the municipality in the last decade. Indeed, with the construction of the Vasco da Gama Bridge and the IC32 highway between Coima and Alcochete, the Alcochete-Moita-Montijo-Palmela-Setúbal axis had been the stage for significant changes in land occupation patterns. In this context, Palmela was the municipality that observed, between 1991 and 2001, greater growth in the number of

popularised by Michael Porter, in 1990, in his book *The Competitive Advantages of Nations*, although Alfred Marshall identified similar situations, in 1890, in his book *The Principles of Economics*.



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buildings (21,0%), having been surpassed in terms of increasing the number of dwellings (34,6%) only by Alcochete (39,5%). (PEREIRA, 2003) Indeed, the construction of the Vasco da Gama Bridge has enabled a significant reduction in the distance-time between Palmela and Lisbon, from a roadway perspective, reflected in the demand increase for housing in the northern part of Palmela municipality, corresponding to Pinhal Novo. Also *Fertagus*, the suburban train service that operates between Lisbon and Setúbal through the 25 de Abril bridge, contributed to the accessibility improvement, with impact in terms of demographic and urbanization dynamics, particularly in agglomerates adjacent to the municipality's four train stations served by this route² (Penalva [i.e. *AutoEuropa*/Marquesas], Pinhal Novo, Venda do Alcaide and Palmela).

Despite this population, urban and even economic growth, verified since the 60s, and with a new dynamics in the 90s, in the LMA context, the municipality remained a peripheral space, with a functions and services predominance, associated to Level 3 urban agglomerates³ (Palmela and Pinhal Novo), according to the PROT-AML⁴ territorial model. The expansion of periurban areas of legal and illegal origin, that in the last case causes additional difficulties to the territorial planning and urban management, have its impacts in terms of networks and equipments maintenance for water supply and basic sanitation.

It's important to emphasize the importance of several rural economic activities, in fact, traditional products, like “*Moscate!*” wine, “*Azeitão*” sheep cheese, “*Riscadinha*” apple and traditional sweets represent great value, not only from an economic point of view, but also in a historical and symbolic perspective linked to the local traditions. In terms of nature and landscape the municipality also has a huge potential offered by the landscape diversity of its territory and the existence of natural sensitive areas, including the Sado Estuary Natural Reserve (in the southern part of the Marateca civil parish) and

² Palmela as also a fifth train station in Póceirão, (as well as several way stations) but that operates with an other route (“*Linha do Alentejo*”).

³ In a Metropolitan Urban System perspective and considering the “Central Places Theory”, as described by Walter Christaller, in 1933, in his work “*Die zentralen orte in süddeutschland*” (“The Central Places in South Germany”).

⁴ PROT-AML: *Plano Regional de Ordenamento do Território da Área Metropolitana de Lisboa* (Lisbon Metropolitan Area Territorial Planning and Land Use Plan), which is currently under revision.



the Arrábida Natural Park (in the southern part of Palmela and Quinta do Anjo civil parishes), as well as large areas of cork oak forest.

II – Public projects with impact in Palmela municipality

In the next few years Palmela municipality will be strongly influenced by major public infrastructure projects, namely:

- Poceirão Logistic Platform (PLMP – *Plataforma Logística Multimodal do Poceirão*);
- High Speed Rail Network (RAVE – *Rede de Alta Velocidade*) between Lisbon and Madrid;
- Lisbon New Airport (NAL – *Novo Aeroporto de Lisboa*) in the Alcochete air force shooting range (CTA – *Campo de Tiro de Alcochete*);
- Tagus River Third Bridge (TTT – *Terceira Travessia do Tejo*) between Chelas (in Lisbon) and Barreiro.

Indeed it should be noticed that, «*In this decade large public investments were announced, especially the New Lisbon Airport (NLA), the third bridge crossing the Tagus river (Chelas-Barreiro), the high-speed train and the logistics platform Poceirão [sic], along with other infrastructure of a regional/local dimension, all of them favouring the Peninsula of Setúbal. This concentration of investment is questioned by those who look at it as an increasing gap between the richest region and the rest of the country, but defended by those who consider that the strengthening of Lisbon Metropolitan Area internal cohesion is crucial to reinforce its competitiveness in the international context.*» (PEREIRA and CARRANCA, 2009: 4)

Other important projects, but at a more local level, are related to tourism, particularly in two main poles, one in Rio Frio (north of the municipality) and another in Zambujal (southeast), as well as other small ventures, linked to the wine sector (Eno-Tourism) and agriculture (Agro-tourism).

Also maintaining the *AutoEuropa* car factory and all the industrial park associated to it, in a *cluster* logic, is extremely important, on employment and product level, not only from a local point of view, but also from a regional and national one.

III – Poceirão Logistic Platform



Since the 1990's, a demand for logistic services in Portugal has been developing, the major international business operators began to establish themselves throughout the all territory, mainly in Lisbon and Oporto metropolitan areas' municipalities, specially because of the «(...) *maiores ou menores acessibilidades proporcionadas pelas infra-estruturas viárias e terminais de transporte, mas também [by the] reestruturações internas ocorridas nas empresas (...), das quais se destacam: a elevação da logística a um lugar de destaque no seio das empresas; a exteriorização de funções como a comercialização, a distribuição e, inclusive, a armazenagem.*» (DOMINGUES, 1994: 81)

However, the national logistics is characterized by a widely dispersed, small sized and disordered location, particularly in former factories and warehouses with negative impacts in terms of territory planning, road congestion and undue occupation of public space. This situation was concentrated in Lisbon and Oporto metropolitan areas due to the emergence of smaller operators without large investment capacity in infrastructure and the lack public initiative logistic platforms properly organized and infrastructured (FIGUEIRA DE SOUSA and NUNES DA SILVA, 2005 (coord.): 240).

In this way and facing the repercussions that the logistic business has on economic competitiveness and regional planning, it became evident the need for a logistic industry, global and national, strategy, which was done by the Council of Ministers Resolution (“*Resolução do Conselho de Ministros*”) No. 20/2000 of 30 March, which determinate the elaboration of the Logistic Platforms National Network Plan (“*Plano da Rede Nacional das Plataformas Logísticas*”), which although was never completed.

When facing with this situation and considering the delays and failures in the field of logistics in Portugal, the Government presented in May 2006 a Strategic Plan for Logistics, called Portugal Logistics (“*Portugal Logístico*”), which, among other things, established a Logistic Platforms National Network which predicted the creation of two air cargo centers, one in Lisbon and one in Oporto, and eleven logistic platforms, of which PLMP is one of them.



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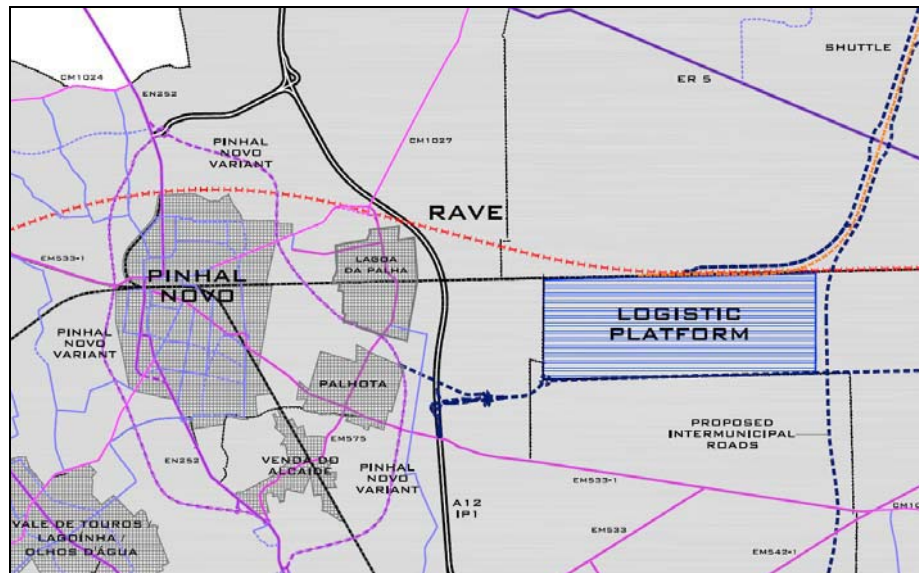
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Located in the Poceirão civil parish, in the Palmela municipality, and about 35 km southeast of Lisbon, this infrastructure will be the most western logistic *hub*⁵ in Europe and will be endowed with new access roads and railway that allows establishing links with Lisbon, Setúbal and Sines international ports and Lisbon New Airport.

This project has a length of about 600 ha, of which 262 will be deployed in the first phase, which was expected to start in the third quarter of 2009. The PLMP project is the development of a second generation logistic platform, which promotes the change between the different modes of transport, especially between road, rail (high-speed and conventional network) and shipping. This infrastructure will have a privileged position in terms of road, near the intersection of A2 and A12 highways, which will provide links to Spain, to Lisbon, Setúbal and Sines ports, to Algarve and southern Spain, to Lisbon and to the North of Portugal. In terms of railway, is expected the creation of an interface on the platform that allows the connection to the NAL's Shuttle, RAVE and the conventional network.

Figure 2 - Poceirão Logistic Platform Location



Source: Palmela Town Hall – Strategic Development Cabinet

In terms of Territory Planning, and in accordance with Palmela Municipal Master Plan, the PLMP area and its connection to A12 highway is located in an agro-forestry area,

⁵ This term can be translated as “rotating platform”, frequently associate to airport infrastructures it can also be referred to ports.



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which made the project incompatible with the land use that was originally set for that area. In this sense and in relation with the project regional and national economic interest, job creation, transport intermodality and recognition as a National Interest Project (PIN – *Projecto de Interesse Nacional*), the government proceeded with the partial suspension of Palmela Municipal Master Plan in the implementation area of these projects through the Council of Ministers Resolution No. 53/2008 of 19 March.

The PLMP will consist of warehouses or lots for rent or sale, which will be occupied by logistic operators, transportation or other companies that require their own logistics. In terms of area types the following situations are provided:

- Logistic Distribution, Grouping and Processing Area: for the logistic activities that require indoor spaces to perform different tasks. The lots adjacent to the rail terminal will have a dedicated rail access allowing the insertion of the trains directly inside the warehouse.
- Logistic and Exhibition Area: area oriented to a more commercial aspect. Besides storage, there will be space to hold products exhibition. These buildings are positioned along a diagonal avenue;
- Support Centre for Road Transport: area of support for the road transport with a parking area for heavy vehicles, with resting area and showers, refuelling, restaurants and repair garages;
- Multi-Purpose Logistic Area: intended to activities or products that do not require covered storage spaces, or that require small ones;
- Intermodal Area: corresponds to the Commodities Intermodal Center. This is the area of intermodal excellence (with 10 internal routes) where the rail connection between the existing conventional network (iberian gauge) and the planned high-speed network (european gauge) will be made;
- Integrated Services Center: space for the installation of companies that do not require for their activity a storage area, including a business center, retail space, restaurant area, a hotel and a leisure park/green area;
- Commercial area: area for installation of commercial spaces that will supplement the existing offers within the Integrated Services Center;



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- Other facilities: there will exist in the PLMP spaces dedicated to the installation of infrastructure such as a wastewater treatment plant, a water treatment plant and respective hole and an electrical substation.

In terms of job creation and according to the authors of the Environmental Impact Study is possible to create about 10.800 direct jobs (IDAD, 2009: 6). In fact and despite not being expected that all these jobs will be occupied by present or future residents in the municipality, it seems reasonable to conclude that with the relocation of several companies to the logistic platform and the enhanced accessibility (road and rail network) in LMA south bank, many workers might change their residence. This situation will cause a significant increase in urban and population dynamics and will also have reflect on the basic infrastructures networks and collective equipments.

Some of the most significant impacts resulting from implementation of this project will be at the local road network, whose new configuration will be reflected in this Municipal Master Plan revision. In fact, the Palmela municipality already has a national/regional road network, with the following roads and connections:

- 25 de Abril Bridge / A2 highway and Vasco da Gama Bridge / A12 highway, that ensure the links to Lisbon, its harbor, the current Lisbon airport in Portela, and the Lisbon Region Supply Market (MARL - *Mercado Abastecedor da Região de Lisboa*);
- A12 highway access to Setúbal and its seaport;
- A2 highway to the south and access to Sines Port;
- A2 / A6 highways to the interior of Portugal and Spain;
- IC32 highway allows the connection of several local points to the highways network.

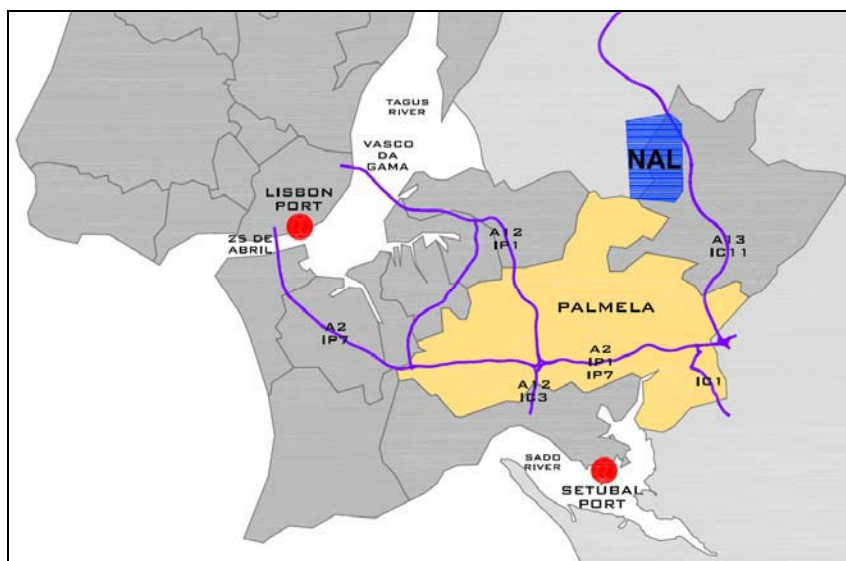


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Figure 3 - Palmela main road connections to the LMA



Source: Palmela Town Hall – Strategic Development Cabinet

The PLMP viability is called into question if there is not a remodelling of the existing road network and if the opening of a new access node to the A12 highway near the logistic platform and the construction of a variant to EN252 is not done. (VTM, 2008: 22) The road link to A12 highway aims to facilitate the PLMP functioning, since the local roads cannot handle the circulation increase in terms of flow, speed and security (IDAD, 2009: 3). On the other hand, the construction of a variant to EN 252 will allow the connection between key local roads, with emphasis on EN 252 and EM 533-1, diverting traffic from crossing the center of Pinhal Novo.

IV – High Speed Rail Network between Lisbon and Madrid

This connection arises as a project which pretends to reinforce Portugal connectivity, specially Lisbon, on the Iberian and European range. Starting on Oriente's Station, in Lisbon, it crosses the Tagus River to its south margin, through the new bridge that will link Chelas (a Lisbon neighbourhood) to Barreiro. This infra-structure will also have an interface on the Poceirão Logistic Platform, where a Shuttle will make a connection to Lisbon New Airport.

This connection was conceived to have a mixed utilization, allowing not only passengers but also merchandise transportation, specifically to strengthen Portugal's position on the European biggest transport and merchandising networks. This is why it is extremely important the Poceirão Logistic Platform interface, allowing intermodality



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between road, railroad (High-Speed Train and conventional railroad) and maritime transports, which in this case will enhance portuguese seaports in the Iberian context, enlarging it's hinterland to Spain's inland.

It's important to mention that this project assumes Poceirão-Caia section concretization in first place, having the Poceirão Logistic Platform interface functioning, temporarily, as Lisbon's main entrance, at least till the Tagus River Third Bridge and the connection to Oriente's Station are concluded.

In order to ensure the necessary conditions to this enterprise programming and execution, the Portuguese Government subjected the proposed route associated areas to preventive measures, through legislation: Decree (“*Decreto*”) No. 25/2007 from the Public Works, Transports and Communications Ministry (“*Ministério das Obras Públicas, Transportes e Comunicações*”) of October 22, amended by the Ministers Council Resolution No. 11/2009 of January 27.

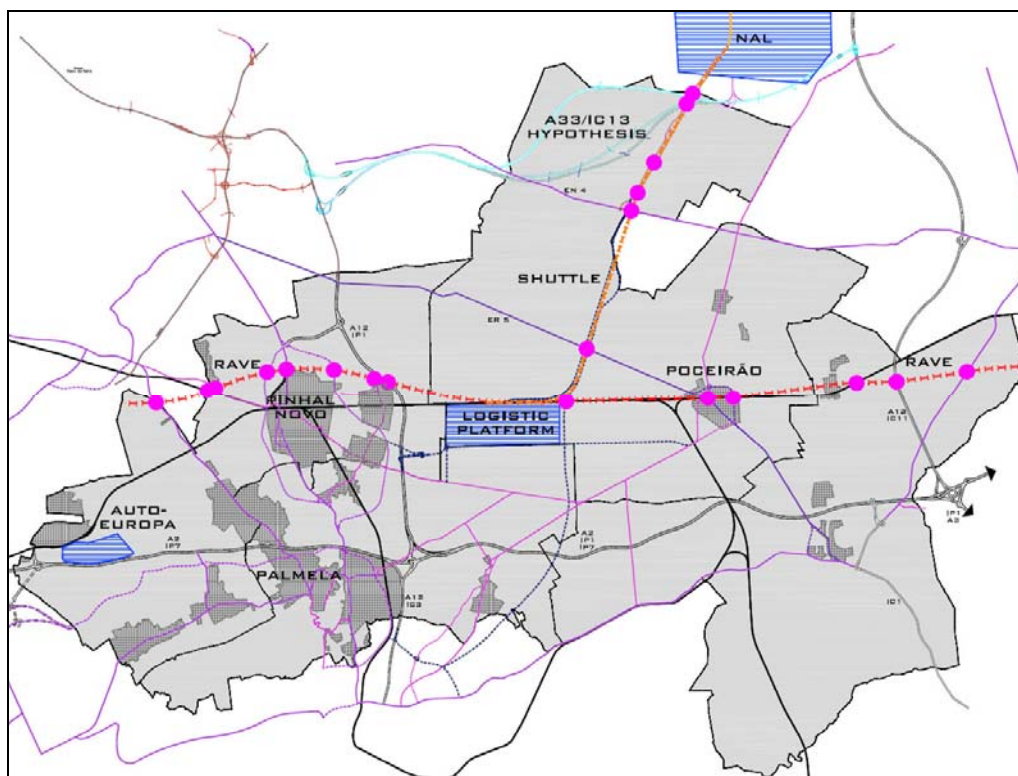
With the Tagus River Third Bridge construction, considering that the High-Speed Train will reach a 350km/h maximum speed in some points, it is possible to aspire to a two hours and forty five minutes passenger's journey duration, between Lisbon and Madrid. In terms of passengers' projection the figures show us a 9,3 million passengers per year demand in 2033. On the other hand, concerning to long course movements, the high-speed train market share would change from the present 4% to about 36%. According to the Environmental Impact Study authors, the merchandising traffic may reach 1,5 million tons in 2020, of which 1 million tons transported on the high-speed train. (SENER, GLOBALVIA and CÂNCIO MARTINS, 2007: 4). Although it should be noticed that «*El tren sólo no constituye por sí mismo un factor de localización de empleo y, por tanto, de crecimiento demográfico. Lo que sí es cierto es que mejora la accesibilidad del entorno de la estación, acercando ese espacio a los lugares conectados por la red.*» (HERCE VALLEJO, 2009: 53)

In fact, this project will contribute to promote a more effective transports system creation, namely due to the transference of passengers and merchandise from road and aerial transportation, the latest in less extension, to railroad transportation. From the territory planning and environmental point of view, considering also the infrastructure barrier-effect and its consequent disruption of some environmental and social systems,



with special reference on this last point to the disruption of some road sections, the national, regional and even local socio-economic capital gains are frankly superior. Even in situations where there is an existing road network crossing and interruption, Palmela City Hall is having conversations with RAVE in order to find alternative solutions.

Figure 4 - High Speed Train intersections with road and conventional railroad networks (existing and proposed) on Palmela Municipality



(Intersection points between networks showed in pink)

Source: Palmela Town Hall – Strategic Development Cabinet

V – Lisbon New Airport at Alcochete Shooting Range (CTA)

Initially predicted for Ota (Alenquer municipality, some 50 km north of Lisbon), in the Portuguese Air Force Military and Technical Formation Center (CFTMFA – *Centro de Formação Técnica e Militar da Força Aérea*) area, in June 2007 a new location hypothesis emerged for the CTA area (some 30 km east of Lisbon), after the Portuguese Industrial Confederation (CIP – *Confederação da Indústria Portuguesa*) present a new technical study to government authorities. Given this initiative, which introduced new data in the ongoing process, the government understood that this location alternative for



NAL should be further study, in order to prove its viability, and after a comparative study between Ota and CTA made by the Civil Engineering National Laboratory (LNEC – *Laboratório Nacional de Engenharia Civil*), the multicriteria analysis showed that CTA hypothesis was, globally, more positive. In the sequence of this process, the Council of Ministers Resolution No. 13/2008, published on January 22, determined that the new airport location should be in Alcochete Shooting Range.

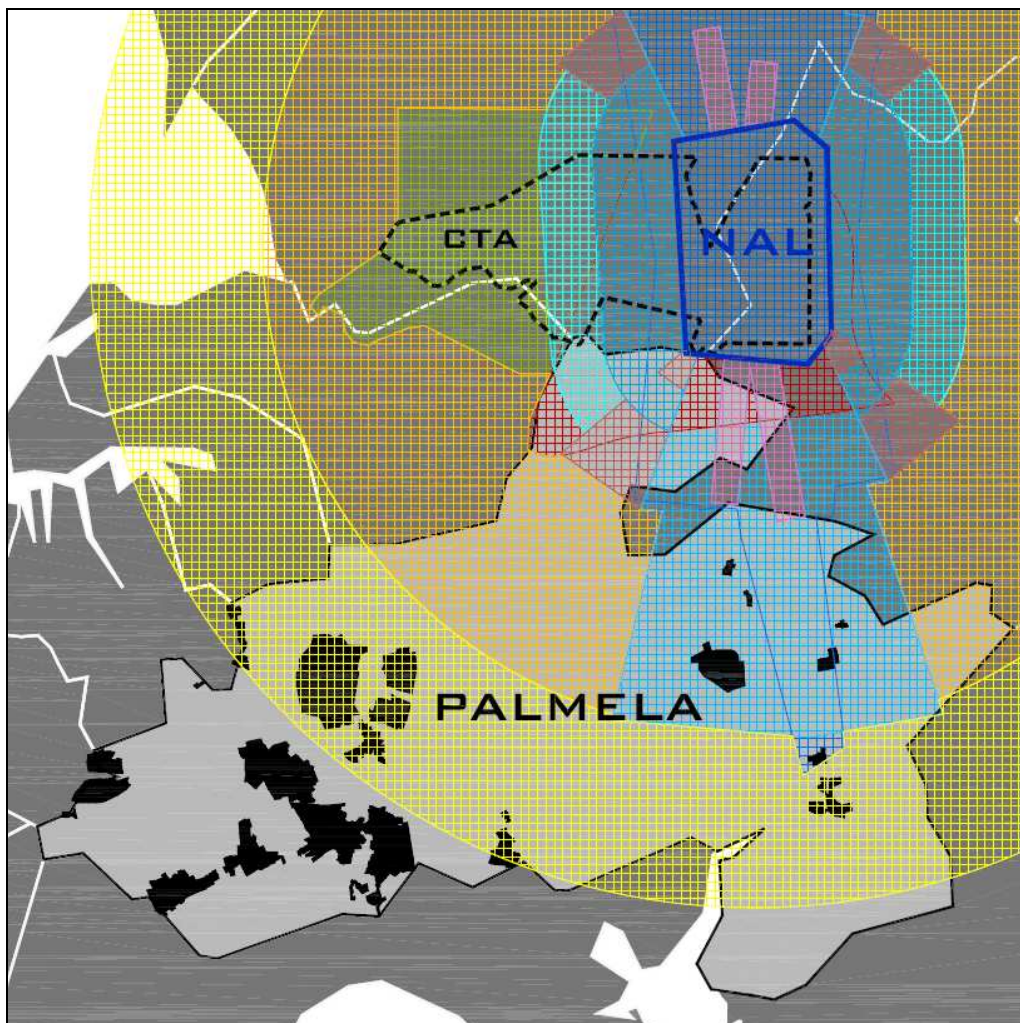
CTA is a Portuguese Air Force facility with around 7450 ha, used for military training, specially bomb dropping by aircraft. Although the topographical reference to Alcochete, CTA area is divided between Benavente municipality (Samora Correia civil parish) and Montijo municipality (Canha civil parish). Even if CTA is not located in Palmela, it implies preventive measures on land use for much of the municipal territory, specially its northern part⁶.

As mentioned, even though NAL is not found in Palmela, the municipality as a whole, may have quite positive impacts from this Project, specially concerning the “*aerportuary city*” concept, referred by PROT-AML under revision. Indeed, if we understand this concept as a polynucleated and interconnected infrastructure, which can use the already existing regional urban network, there is an expectation that Pinhal Novo may be a node of this “*city*”, «*The decision of locating the airport in an environmentally sensitive area has raised controversy about the development of a city airport in its immediate environment. For that reason a decision was taken: to develop the city airport as a decentralized city, spreading part of it to the South Riverside Arch. Thus, the consolidation of the local urban system, namely through the setting of activities directly related to the airport or depending on it, will not only reinforce the existent urban centres but will also safeguard the agro-forestry and natural values on the surroundings of the NLA.*» (PEREIRA and CARRANCA, 2009: 6)

⁶ Decret no. 19/2008 from the Public Works, Transports and Communications Ministry of July 1.



Figure 5 - Lisbon New Airport Location and its Preventive measures



Source: Palmela Town Hall – Strategic Development Cabinet

In this sense, if we consider that some scenarios predict that in 2017 NAL may receive 19 million passengers per year and 405.000 cargo tons (LNEC, 2008: 180), or that the job gains for Lisbon polarised region may reach 29.300 jobs in 2030 and 50.100 in 2050 (LNEC, 2008: 180), we can quickly understand the influence this situation may have in terms of the socioeconomic and urban dynamics of Palmela municipality, specially in Pinhal Novo.

NAL may then induct a set of local development opportunities:

- Increase in development opportunities associate with PLMP, with impacts in term of job creation;



- Opportunity to promote Pinhal Novo urban agglomerate growth, given the aforementioned strategic location, namely:
 - In a north-south direction, half –way between NAL and Setúbal city and port,
 - In a east-west direction, half-way to two of the main national economic activities centers, PLMP and *AutoEuropa* factory;
 - the possibility to create an urban center of greater importance and dimension than the current, assuring more housing, as well as, the location of equipments, trade and services of higher hierarchical level;
- Tourism development possibilities, namely in resorts with greater dimension and quality, in Rio Frio and Zambujal;
- In terms of accessibilities, NAL will be served by new road and railroad infrastructures, namely:
 - An interface between the conventional and the high speed nets in PLMP, with connection to NAL through a Shuttle;
 - The creation of IC13, from A12 and IC32, in direction to A13.

Indeed, the importance of accessibility is such that «*o posicionamento relativo dos aeroportos conferido pelas redes de transportes terrestre associadas apresenta-se como fundamental para suportar a oferta de serviços, projectando-a através de territórios mais ou menos vastos, muito além da sua própria região de implantação.*» (PIMPÃO, CORREIA and TÃO, 2008: 25)

Between the most significant negative impacts, we can find the noise increase caused by airplanes, namely near the airport, in the northern part of the municipality, and the road traffic enhance that, however, can be minimized by railroad traffic growth.

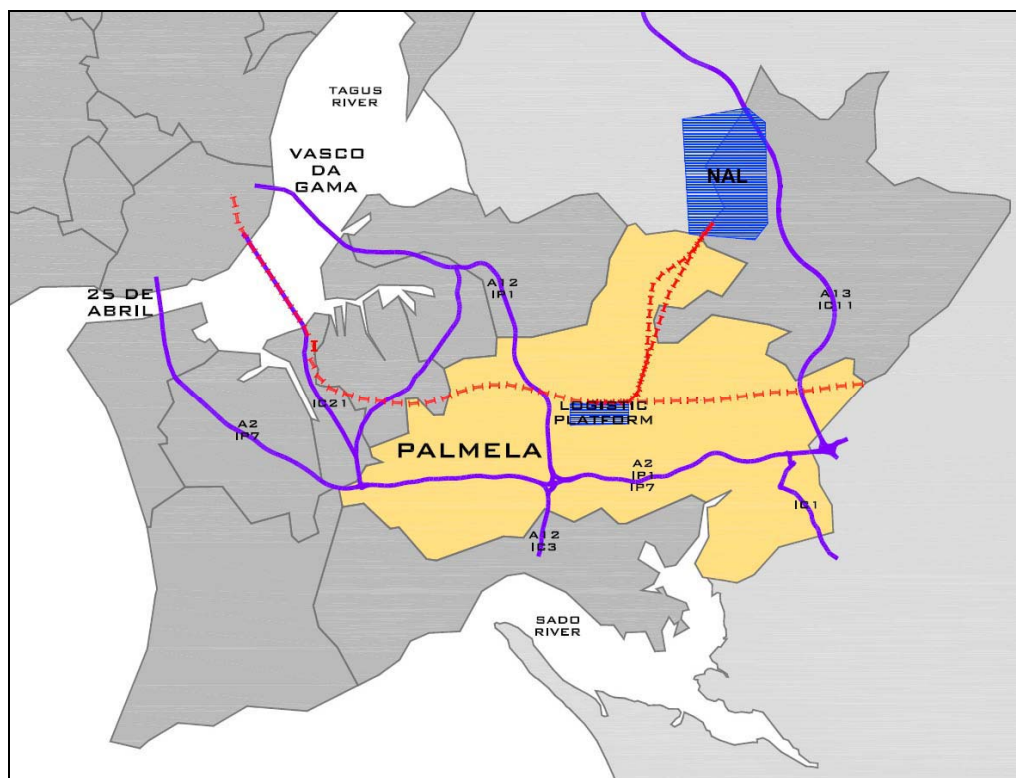
VI – Tagus River Third Bridge between Chelas (in Lisbon) and Barreiro

After a period of technical and political debate about which would be TTT corridor – Chelas-Barreiro or Beato-Montijo -, or if the infrastructure should be exclusively railroad or should have simultaneously road and railroad capacity, the Council of Ministers Resolution No. 71/2008, published on April 28, defined that the TTT corridor should be between Chelas and Barreiro.



The project predicts the construction of a road and railroad bridge between Lisbon (Chelas neighbourhood, in Tagus' river right bank) and Barreiro (on the left bank). The railroad component of this project should well-match the conventional (iberian gauge) and the high-speed (european gauge) nets. The main effects of this infrastructure must be felt in South Riverside Arc central area (Barreiro and Moita municipalities), however, all Setúbal Peninsula, where naturally Palmela, PLMF and NAL projects are included, should have important improvement in road accessibility to Lisbon, as well as in terms of iberian and european connection, through the high-speed net.

Figure 6 - Tagus River Third Bridge and its main road and railroad connections



Source: Palmela Town Hall – Strategic Development Cabinet

VII – Expectable impacts in terms of Territory Planning and Development for the next decade in Palmela

Among the expected impacts in terms of Territorial Planning and Development for Palmela municipality, and making a very brief and schematic analysis, we can present the following positive aspects:



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- in terms of employment is expected that projects under development may provide an opportunity to create several thousand jobs, of which a significant portion can be filled by residents in Palmela municipality, either current or future inhabitants;
- in fact the existence of a positive demographic dynamics will be closely related with the increase in job opportunities, as well as the existence of residential areas with good levels of accessibility. If, in an earlier stage, the population growth will be mainly through migration growth, in the medium term, it could also be through natural growth, allowing the population rejuvenation;
- Also in terms of accessibility, specially considering the aforementioned projects' characteristics, Palmela municipality will benefit a lot. In fact, Palmela's accessibility, both at regional, national and even international level, will increase exponentially. Moreover, interoperability between different transport modes will increase the overall level of transport availability and thus the population mobility⁷;
- following the above mentioned there are conditions to increase urbanized areas, including in terms of housing. Much of this growth will be directed to Pinhal Novo, given the critical mass that it already has as the municipality main urban center and its proximity to the planned projects and to the communication networks (road and railway) and its access nodes;
- the implementation of these projects on Tagus River south bank will "refocus" Setúbal Peninsula and Palmela municipality in the context of LMA, reinforcing the idea of "cidade de duas margens" ("two river banks city") present in the current review of PROT-AML, *«The final decision to locate the NLA on the left bank (originally planned for the north bank) is the one which will cause major implications for regional dynamics, it will induce the setting of multiple activities, directly and indirectly associated with it, and will strengthen the viability of the will of refocusing the LMA around the Tagus estuary, foreseen to the regional level. The Government decision of*

⁷ Although some studies affirm that in the french and spanish cases, *«Después de 25 años de la primera línea (París-Lyon) y tras la construcción de la potente red francesa ha desaparecido la euforia respecto al impacto de la alta velocidad en el desarrollo económico y social, por lo que afecta a su efecto inductor de actividades de tipo industrial, lo que no puede sorprender al constatar su influencia indirecta sobre la organización del transporte de mercancías a través de líneas convencionales de ferrocarril. (...) los efectos de este estilo son bastante decepcionantes, demostrando que tienen más importancia otros factores (como fiscalidad, las subvenciones de la instalación, etc.)»* (HERCE VALLEJO, 2009: 54)



locating near to the airport only the functions directly under its activity and of installing the other airport associated functions on the urban Riverside South Arch creates the conditions for the regeneration of existing brownfield areas and for the reconfiguration and consolidation of the local urban system. (...) based on this challenge of (re)focusing the LMA development around the estuary of the Tagus and of developing Lisbon as a city of two banks (...)» (PEREIRA and CARRANCA, 2009: 4);

- the temporal and spatial simultaneity of this projects execution has the advantage of allowing a more integrated planning process, in particular with the present review of Territorial Management Instruments (IGT – *Instrumentos de Gestão Territorial*), in particular PROT-AML and Palmela Municipal Master Plan.

The prospect that there will be a significant population growth can be evidenced, for example, by comparing the demographic projection for Palmela municipality, undertaken under the PROT-AML review, and the projection calculated under the current Municipal Master Plan review. In this sense, the intermediate scenarios, which are more likely to occur, are quite coincident and indicate that the municipality in 2020, may have between about 85,000 and 90,000 inhabitants. The fact that both projections came out very similar numbers is due to the fact that both teams used very similar methodologies. Indeed, and spite some differences, in both cases it was used the cohort-survival methodology and similar annual average migration numbers.

Table 1 - Demographic projection: Palmela Municipal Master Plan review

	2001	2005	2010	2015	2020
<i>Natural Growth Scenario</i>	53353	54512	55527	55728	55537
<i>Migration Growth Scen. I A</i>	53353	58923	64521	69754	74833
<i>Migration Growth Scen. I B</i>	53353	59532	65763	71685	77483
<i>Migration Growth Scen. II</i>	53353	60787	68337	75691	82949
<i>Migration Growth Scen. III</i>	53353	61205	69193	77022	84816
<i>Migration Growth Scen. IV</i>	53353	62042	70905	79654	88287

Source: Palmela Town Hall – Strategic Development Cabinet



Table 2 - Demographic projection: PROT-AML review

	2001	2006	2011	2016	2021
<i>Scenario I</i>	53353	58864	64298	69524	74384
<i>Scenario II</i>	53353	61463	70143	79279	89521
<i>Scenario III</i>	53353	66340	81600	99489	119745

Source: CCDR-LVT and PROT-AML review technical team

Now that we presented the most significant positive aspects that can be expect, we will now enumerate the possible negative aspects that seem most relevant:

- With regard to noise, NAL and to a lesser degree, RAVE and PLMP and the general increase in road traffic, appear as negative externalities⁸ with some importance;
- The projects under review are important territory and soil consumers. In fact, the implementation of these projects will result in soil waterproofing, vegetation destruction and impacts at landscape level;
- RAVE creates a barrier effect that causes some disruptions of social and environmental systems. In the case of social systems is of particular importance the disturbance of some agricultural activities and the existing road network, which will be alleviated with the construction of certain road passages;
- Increased urban pressure, particularly in housing, can cause problems for existing urban perimeters, as well as lead to increase in areas with a scattered and illegal occupation, exacerbating the existing situation in the municipality;

in terms of water supply and sanitation and the extension of public equipments networks, may cause an additional underload to municipal budgets, which may be exacerbated if there is not a proper planning and programming between the infrastructuring and the effective occupation of these areas by population and/or activities. This is *«uma questão importante quando se equaciona o fornecimento de infra-estruturas é saber qual a sequência aconselhável: fornecer primeiro as infra-estruturas e depois esperar pelo surgimento de investimento em capital directamente produtivo ou seguir uma sequência oposta desta primeira. Para um mínimo*

⁸ Positive or harmful effect that a given economic activity has over other entities that are not involved in that activity.



estritamente necessário parece ser óbvio que as infra-estruturas terão de proceder o investimento em capital directamente produtivo.» (SILVA COSTA, 2002: 370-371)

VIII – Final Remarks

In review we can say that are very positive expectations resulting from the implementation of the projects that have been described throughout this communication. In fact, despite the current economic situation, both nationally and internationally, and some negative aspects presented, the materialization of these initiatives will certainly improve economic growth and development, both locally, in Palmela municipality, regionally, in Setúbal Peninsula and LMA, and nationally. Nevertheless, *«a importância das infra-estruturas colectivas no desenvolvimento regional continua a ser matéria de disputa. Predominam os trabalhos empíricos [and] a relação de causalidade entre infra-estruturas colectivas e crescimento tem sido a mais séria crítica do trabalho dos defensores da importância das infra-estruturas colectivas.» (SILVA COSTA, 2002: 388-389)*

On the moment of writing this communication, (late-April/early-May 2010) the economic situation of southern european countries (the some times infamously called PIGS - Portugal, Italy and/or Ireland, Greece and Spain), is very difficult, namely in terms of public deficit and external debt. Greece, the most problematic case, is in a very serious situation, near bankrupted, and in the imminence of accepting an emergency multimillionaire loan from the European Union and/or the International Monetary Fund.

Portugal (and Spain) is the second most “dangerous” case and the portuguese government was compelled to negotiate a PEC (*Programa de Estabilidade e Crescimento* – Stability and Growth Program) with the European Commission in order to reduce the public deficit to 3% of GDP by 2013. The 2010 state budget already introduced a serious of draconian measures in order to reduce public expenses, although the majority of opposition parties and the mainstream economists call for even a further reduce in public spending, namely through the delay or cancelation of public projects and infrastructures, such as the described in the present work. The government is sending “mixed signals”, even if the Prime-Minister and the Public Works Minister (re)affirmed the importance of these projects in promoting economic growth and development and the intention to carry on with the planning.



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The next weeks will show us how firmly the government plans for these projects are. And, in an affirmative scenario, in the next years we, at Palmela Town Hall, will be analyzing and monitoring the real territorial and economic impacts of the aforementioned projects...

Bibliography:

DOMINGUES, A. (1994) “Actividades Logísticas e Território: o caso da Área Metropolitana de Lisboa”, *in* *Inforgeo* 7/8 – 1994, Associação Portuguesa de Geógrafos, Lisboa.

FIGUEIRA DE SOUSA, J. and NUNES DA SILVA, F. (2005) (coord.); *Formulação de Políticas Públicas no Horizonte 2013 relativas ao tema Acessibilidades e Transportes*, IDE/e-Geo/CESUR, Lisboa.

HERCE VALLEJO, M. (2009) “Ferrocarril de alta velocidad: impactos socioeconómicos, efectos territoriales y oportunidades de renovación urbana”, *in* *Ciudad y Território: Estudios Territoriales* Vol. XLI. Tercera época N.º 159, primavera 2009, Ministério de Vivienda, Madrid, pp. 43-64. (Available at: http://www.eukn.org/binaries/espana/0_CyTET_159_03.pdf)

IDAD (2009) *Plataforma Logística Multimodal do Poceirão (1ª fase) e Ligação Rodoviária à A12 - Estudo de Impacte Ambiental - Volume I – Resumo Não Técnico*, IDAD - Instituto do Ambiente e Desenvolvimento da Universidade de Aveiro, Aveiro.

LNEC (2008) *Avaliação Ambiental Estratégica do “Estudo para análise técnica comparada das alternativas de localização do Novo Aeroporto de Lisboa na zona da Ota e na zona do Campo de Tiro de Alcochete” – Relatório Ambiental*, Laboratório Nacional de Engenharia Civil – Ministério das Obras Públicas, Transportes e Comunicações, Lisboa.

PEREIRA, M. (2003) *Dinâmica Urbanística do Município de Palmela. Estudos de Apoio à Revisão do Plano Director Municipal*, Câmara Municipal de Palmela – Departamento de Planeamento – Observatório Económico e Social, Palmela.

PEREIRA, M. and CARRANCA, M.A. (2009) “Governance in the Lisbon Metropolitan Area: between the ambition of reinforcing the international rank and the will for deeper internal territorial cohesion”, *in* *Conference Papers City Futures '09*, 4-6 June 2009,



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Universidade da Madeira, Funchal

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Madrid. (Available at:
http://www.cityfutures2009.com/PDF/56_Pereira_Margarida.pdf)

PIMPÃO, A., CORREIA, A. and TÃO, M.M. (2008) “Integração de Aeroportos e Redes Terrestres: a experiência europeia e potencial impacto em Portugal”, in Revista Portuguesa de Estudos Regional – N.º 19 – 3.º Quadrimestre de 2008, Associação Portuguesa para o Desenvolvimento Regional, Coimbra, pp. 25-41.

SENER, GLOBALVIA and CÂNCIO MARTINS (2007) Ligação Ferroviária de Alta Velocidade entre Lisboa e Madrid, Lote 3A2-Lisboa—Montemor/Via TTT- Sub-Troço Moita/Montemor (Estudo de Impacte Ambiental – Resumo Não-Técnico), SENER, Globalvia, Câncio Martins, Lisboa.

SILVA COSTA, J. (2002) “As infra-estruturas colectivas e o desenvolvimento regional”, in SILVA COSTA, J. (coord.) Compendio de Economia Regional, Associação Portuguesa para o Desenvolvimento Regional, Coimbra, pp. 361-395.

VTM (2008) Estudo de Impacte de Tráfego da Plataforma Logística do Poceirão, VTM – Consultores, Oeiras.