

IDENTITY OVER FRAGMENTATION: THE CASE OF VILA NOVA DE GAIA

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Abstract

Porto and VilaNova de Gaia: two cities have grown around the same natural infrastructure, but have developed in totally different ways. Porto, the second city in the country is defined by its culture and very well-known for the Port Wine that has actually always been produced and handled in Gaia. Gaia became just a periphery, never having the chance to create its own identity, despite its amazing landscape where its trading post was settled.

Gaia is currently a crossing land – it acts both as a passage for those commuting to Porto and as dormitory. Its urban tissue is mainly consolidated along one axis alone, being that all remaining territory has been despised - in some cases almost abandoned, in others impossible to intervene on due to normative constraints.

Strategic territory planning has been growing as a promising alternative within land development policies. Based on new methodological grounds it is supported by prospective analysis, flexible and adaptable measures and local agent involvement and aims at defining structuring development axes and improving territorial competitive performance.

The purpose of this work is to highlight the importance of addressing Gaia's weaknesses and to present an approach through which they can be addressed. Hence, two parallel nonexclusive scenarios are drawn: the first one for short term implementation, aiming to take into consideration the current economic conjuncture; the second one, requiring larger investments, retrieves some already made (and well-known) proposals that shall not be forgotten and shall, hence, be considered on the long-term.

1. Introduction

Many various socio-economic changes have been acting on territories throughout recent decades. Some brought up by globalization processes, other through technological development (particularly in transportation and information), the truth is these changes have prompted a discussion about whether the legal instruments currently used in urban and regional planning nowadays are actually still suitable to the reality at hands. Despite present conjuncture, in the actual constantly growing context of territorial competitiveness, the merely regulatory framework, addressing only land uses and activities, often lacks effectiveness for not comprising explicit goals in relation with economic empowerment and growth and social cohesion.

Strategic land planning has been building up a reputation as a good alternative in the territorial development realm. By introducing a new methodology, based on prospective analysis, on conceiving measures that can be crafted and adapted, and on promotion of local adequate participation, strategic planning aims to delineate pathways that may structure development and boosting territorial competitive performance.

In line with the assumptions characterizing strategic planning, we aim to assess the development potential of the central urban-platform of the city of Vila Nova de Gaia. This case

perfectly represents the well-known paradigm of the city located in the periphery of a major one – in this case, the city of Porto, that has been going through a constantly growing process, despite the severe economic downturn. Accordingly, it is our goal to endeavour on this quest of finding “a” (or perhaps “the”) centrality of Gaia, that may contribute to its local resources affirmation. It is around them that future evolution lines shall be drawn. Through careful analysis of the situation, we gather a set of suggestions and guidelines that may, hence, contribute to (re)defining and (re)building local identity.

2. Policy Framework

At the end of the 80's, Vila Nova de Gaia faced a sudden growth of punctual urban occupation, especially housing-oriented, becoming one of Porto's biggest dorms.

By the time the first actual planning tool was created (the first Municipal Masterplan)¹⁹², Gaia was exactly on the way for everyone going in or out of Porto, in the direction North-South. Aside from that, it was still predominantly rural and it lacked structure and organization in relation to infrastructural elements and equipment.

The accelerated phenomenon of urbanization was never paired up with proper consolidation there was never a strong pulse in stimulating the third sector, in planning urban equipment location or in directing investment.

Thus, the first PDM was born, at the time legally bound to the Decree-Law. 69/90, and it was a tool merely focused on physical and morphological aspects of the territory under its jurisdiction. Hence, it was limited to defining land usage conditions.

Its strategy was based on four fundamental and interdependent vertices: New Centralities, Housing Quality, Accessibility and Environment. The goal was to prompt synergies, hopefully resulting from converging interests, and hence multiplying initiatives and investment (both public and private), while simultaneously defining means, resources and establishing priorities of action.

Attempting to implement a strategy on such a low infrastructure land, marked by dispersion and heterogeneity, along with other several circumstantial factors (related, for instance, to uncertainty), contributed to the adoption of the criteria for Zoning and Regulation of Land Usage, present on 1994 PDM.

The 1994 Masterplan

Aiming to reduce uncertainty, the Municipal Authority delineates a strategy for the Municipality that covers a considerable level of flexibility. It starts from a severe infrastructural insufficiency, and is based on the need to empower the Municipality to a shift in the labour market, consisting both on a reconversion of the existent industrial plant, and a stimulation of the service sector.

On the one hand, the promotion of tertiary spaces could constitute a direct increase in public revenue, either directly, through taxation, or indirectly, through enhancing employability and housing conditions. On the other hand, it is also true that, at the time, competitiveness within metropolitan space for that kind of centrality would be quite limited, yet not necessarily less vital for a Municipality like Gaia (which, due to urban development inertia, had no ambitions of overcoming its mere dormitory character). Under such competitiveness, Gaia had some severe disadvantages: its infrastructural underdevelopment and the lack of “prestigious” high level facilities, only counterbalanced by the differential of the market value for the respective land. Consequently, special care was taken into establishing the zoning scheme in PDM '94, so that this advantage would not be compromised.

Even though it was very unlikely that a strategy addressing the concentration of tertiary functions would actually manage to be implemented, it was nevertheless possible to influence, to a certain extent, investor behaviour, through incisively acting upon accessibility.

¹⁹² In Portuguese *Plano Diretor Municipal* and thus from here on referred to as *PDM*.

These actions were continuously endeavoured by Gaia's Municipality, having great impact on the entire Metropolitan Area of Porto (AMP). It was believed, at the time, that the high capacity metropolitan transportation and circulation network could shape centrality and urbanization patterns, acting in a way to control the "dorm"-effect. While Porto would never be harmed by these projects, the surrounding municipalities suffered a severe impact either directly connected to their outline or later during the course of their implementation.

These aspects are very important in characterizing the context beyond which PDM '94 is created, as it was the only accessibility aspect acting on the southern metropolitan area that was actually not defined before the Zoning Framework was established. Despite this constraint, the Master plan privileged the viability of the predominantly tertiary axis connecting Arrábida to Devesas (opening, later on, into a "Y" shape, providing access to the main large surface retail supermarkets and to Av. da República). That axis was taken into high account, as it was expected to harbour high capacity public transportation, becoming a *continuum* of Campo Alegre Street (on the northern bank of Arrábida Bridge) and, therefore, acquiring a very significant role through increasing traffic flow and reducing land value speculation pressures that could block tertiary expansion.

It was also believed that relevant facilities could be placed along this new axis (St. Marinha-Mafamude-Vilar do Paraíso), depending on their needs regarding accessibility, environment, space or image.

Urban management had even the possibility of articulating, as much as possible, the mixed typology character of the zoning, so that these facilities could actually be implemented towards the formation of a new centrality, as predicted in the Master Plan. It was hoped that these facilities would balance each other out, providing sustainability to the structured land, aided by the improvement of public space (which should have an agglutinating and compatibility-oriented role).

Strategy Outcomes

The previously presented model was highly dependent on inter-city compatibility in relation to accessibility and centralization.

Opposite from what was hoped, that accessibility network was confined to Av. da República. Such induced an actual decrease in tertiary expansion and a simultaneous residential overload of the actual artery and surrounding vessels, resulting in a genuine deepening of the dorm-effect, this time supported by heavy-road network, heavy rail and even light rail. Also, the interface infrastructure previously intended was not implemented, causing the entire plan to fail. This was the strongest uncertainty factor in this "tertiarization" goal – which constituted the actual lever for the municipal investment capacity (financial) recovery, at the time the lowest in the entire Metropolitan Area.

In line with the goals established on the Master Plan, the previous Master Plan's vision remained, insisting on a single axis for high capacity public transportation and the implementation of new connection over the river. The goal was to attract more financially stimulating activities to the centre, while sending others to the periphery (activities demanding more space, in need of heavier freight circulation or environmentally less competitive). Promoting a balanced polycentric and naturally sustainable development of The Metropolitan Area seemed to constitute a merely tranquilizing, yet theoretical, objective.

After the strategic goal of the '94 Master Plan failed, and despite the prudent flexibility it had been provided with, this document should have been totally revised. Would this urban-platform have been reached by the time the 2009 Master Plan became in force?

Starting Point towards a Review Process (2009)

At this point, Gaia held 3% of the overall country's population, 8% of the population residing in the North and 19% of the overall population of the Metropolitan Area of Porto. Regarding housing dynamics, Gaia had followed, if not even surpassed, the other municipalities in the vicinity of Porto, fighting the population ageing trend that had been highlighted on the previous

Plan. Due to the previous investment in new buildings, the Municipality held, at the time, a reasonably young and active population. Most of all, the development of economic activities was remarkable and showed a high level of development of the service's sector, especially along Av. da República.

Facility-related, it was important to add some diversity and dimension to their network, along with some careful programming, which demanded a reinforcement of the institutional and decision-making infrastructures. The demographics demanded investment in culture and education, which was not clear to the common eye. It shall be noted that the area related to the city's parishes was showing very low levels of certain indicators such as leisure, culture and sport activities. To fight this situation was unavoidable. The '94 Master Plan did not set any guidelines concerning public space. It was very common for private owners to limit their action to respecting minimum requirements of area ceding and provision of infrastructures, without a care for proper articulation and conception of public space. Therefore, public space was, in general, fragmented both form and function-wise. When it comes to the urban dynamics between 1994 and 2004, an analysis of private and public investment revealed that, on the public side, there had been some improvements but, on the private side, actions were taken deprived of any continuity or coherence.

We can then infer that the '94 Master Plan would not have been enough to guarantee territorial orientation to the several interventions. At the same time, its flexibility and adaptability skills, perverted as they were, resulted in a far too wide permissiveness. Hence, it was crucial to define a clear strategy addressing global urban development and land use programming, in harmony with the wider approach leading the Metropolitan Area. This approach should orient and influence the different actors involved, supported by a dynamic, creative, propositional and less bureaucratic management. Although the public investment in urban regeneration and facility implementation had created synergies and positively influenced private investment, it was still fundamental to resort to public-private partnerships in order to guarantee an overall municipal revival.

These phenomena, together with the lack of operability or inexistence of planning instruments, accentuate the inequity in urban and landscape configuration. The most glaring concern the stimulation of a denser urban fabric (multifamily housing models) within urban contexts deprived of a supportive road infrastructure, often still essentially rural-oriented or resulting from an intensive occupation, totally disconnected from the existent implementation areas or volumetric. These situations were particularly serious in low urban consolidation areas where the normative of the plan, along with its flexibility, allowed perversion of the latter.

We shall further refer that, the settlement patterns were, at the time, quite dispersed, with a higher concentration in the north surrounding the civic centre, and in the areas closer to Porto. Also, one fourth of the population was concentrated in these areas (the majority being young and active). The housing and socioeconomic dynamics were in line with the ones observed in other municipalities in the vicinity of Porto.

The Review Process

The Master Plan review process was finally levered in June 2001. The ambitious strategic review decisions should redirect the previously designed model towards concerns related to sustainability, to stimulating of the human scale, to urban renewal and environmental qualification.

Despite the new introductions in this proposal, especially at an environmental level, the previously gathered guidelines, contained in the Master Plan of '94, were considered valuable and highly executable. However, due to the age of the document at hands, it was found convenient to *"make corrections and adjustments, both at a strategic level and at a regulatory level"*. Projects such as the new Metro lines, the Infante Bridge, the need to create an intermodal interface and the road network reformulation were assessed and evaluated. This moment of reflexion aimed mainly at prioritizing which projects would be the most pressing for the development of the Metropolitan Area, in particular of its centre core.

As previously seen, also at this point Gaia's positioning was highlighted as in serious need of intervention in order to improve its accessibility and mobility. Hence, projects as the one of a new Metro line (crossing the river through Arrábida), included in a metropolitan-scale circular line, became part of the prospective scenario of The Metropolitan Area of Porto.



Image 1: parts of Planning Plants (on the left) and Conditionings Plants (on the right).



Image 2: bridges over Douro

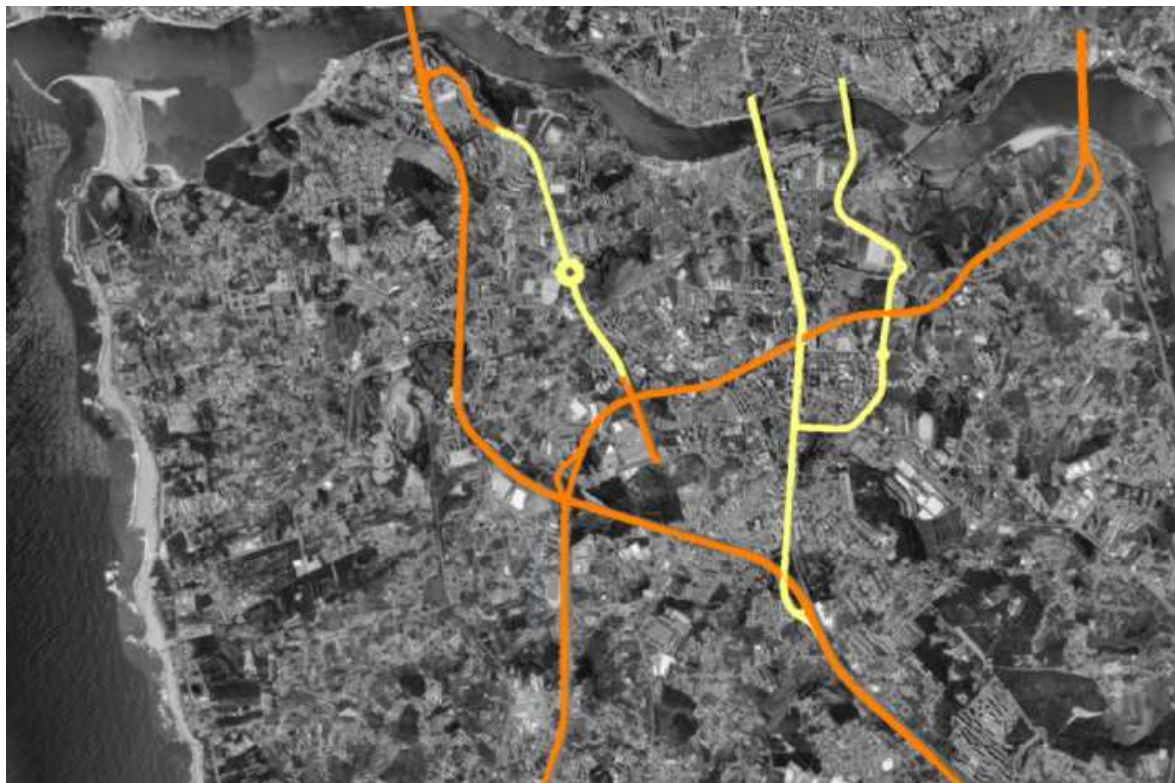


Image 3: Gaia's main road network



Image 4: yellow metro line serving Gaia.



Image 5: STCP network in Gaia.

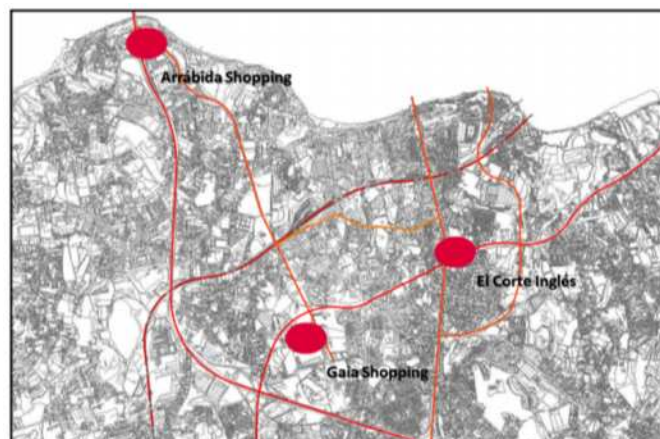


Image 6: satellite-city, materialized in the polarization of large shopping facilities.



Image 7: Devesas Rail Station in decay.

3. Assessment – Issues and Challenges

Road Network

Gaia is connected to Porto by six bridges over the Douro River, each with distinct morphological and functional features. Further knowledge about these infrastructures is important for a better understanding of the way both cities interact with one another (Image 2).

Luís I Bridge, erected in 1886, is the oldest and it holds an upper and a lower deck. The lower deck serves both pedestrian and road traffic, while on the upper one road circulation was replaced by the yellow line of Metro do Porto¹⁹³. Down under, the bridge connects Porto Riverside (“Ribeira”) to Av. Diogo Leite (Gaia), while upwards it links the peak of Morro da Sé (Porto) to Jardim do Morro (Gaia).

Infante Bridge was the last to be built, aiming to replace Luís I's upper deck. Maria Pia was the first railway bridge linking both margins but has meanwhile been replaced by S. João Bridge. However, it is important to highlight the fact that, when it comes to its preservation state, this bridge is not derelict.

Arrábida Bridge harbours the last section of the motorway A1, the main artery connecting Lisbon and Porto. At first, this bridge had two lanes, separated by an elevated central reservation, two bicycle paths and two sidewalks. Later on, two lanes (one in each way) were added to the expense of both bicycle paths and through narrowing the central reservation lane. Despite the construction of Freixo Bridge, upstream, Arrábida persists as the main connection between Porto and the southern margin of Douro. Sadly, its primary aim to potentiate circulation between the riverside level and the deck level was perverted, rendering the initially installed elevators useless, which led to their permanent deactivation.

Freixo is located the most upstream bridge. It shelters eight road traffic lanes and its construction arose from the need to relieve traffic in both Arrábida and Luís I.

When it comes to the road network one shall only refer the Northern Motorway (IC1), which rips through Gaia (north-south direction), constituting one of the main axis of the National Road Network. IC1 gives access to VL8, which crosses IC23 through the Barrosa Node, following from then on as Via Eng. Edgar Cardoso until it reaches Av. dos Descobrimentos.

Starting from the connection established by Luís I, we follow through Av. da República, the most consolidated urban area of the city. The yellow line of Metro was implanted on all its extent, having its end in Santo Ovídio.

The path originating in Infante meets VL9, which follows as Av. João II until it converges with Av. de Vasco da Gama, which later on meets Av. da República. Whoever comes from Freixo enters Gaia through IP1, which originates IC23. The latter crosses the entire municipal territory, from east to west, through an under passage, until it finally meets IC1.

It is already clear, at this point, the overall hierarchic chaos of the current road network. Nationwide relevant pathways are entangled with local level road, carving deep slits on the urban tissue and worsening issues related to car traffic. Also, it is clear that the main flow happens in the direction north-southsouth – which is actually reinforced by the extreme relevance granted to the related arteries. The arteries perpendicular to these, acquire hence a mere side role. This schematic chaos is very clear on Image 3.

Public transportation

In line with the latter, also the main public transportation works north-south. The Metro yellow line enters Gaia through **Luís I** Bridge and goes down Av. da República until Santo Ovídio (Image 4).

The urban bus network (STCP) operates only eight (daytime) lines – at night, this number decreases to 3 –, all of them predominantly north-south oriented. The area around Devesas is particular deprived from any service. It is also shocking the lack of care in promoting

¹⁹³ **Metro do Porto** (from here on referred to as Metro), is the light-rail network that takes part of the public transport system of Porto. It runs underground in central Porto and above ground into the city's suburbs.

interchanges and interfaces, even when there are crossing paths. This situation can be easily assessed on Image 5, where these lines are fairly represented. This situation originates from the fact that STCP is a company created to serve the city of Porto and its direct users and, therefore, the lines operated in Gaia are only supposed to serve its immediate connection to Porto.

We shall notwithstanding allude to the existence of other operators (essentially long-distance) that, coming from south to Porto, end up serving Gaia even if very poorly. Once again, only north-south routes are covered.

We can thus conclude that the overall public transportation in Gaia is weak and scarce. It serves only very limited corridor routes, forsaking the remaining municipality to the monopoly of private transportation. The impact of this matter on distribution patterns is, obviously, massive.

The Great Shopping-Centres

In the early 90's, as private transportation popularity and ease of access grew, a new high-spreading concept is born: the satellite city (Taylors). In this scenario, peripheral circulation is often privileged, which in Gaia's case can be easily seen even by the least trained eye. Accordingly, these movements stimulate the settlement of large commercial units, strategically distributed along the main road network and, thus, favouring the usage of private means of transportation. In this case, it prompted the erection of two big size shopping centres: *Arrábida Shopping* located right next to the first A1 exit point (coming from **Arrábida**) and *Gaia Shopping*, close to the node from which VL8 turns into Via Eng. Edgar Cardoso.

These enterprises were very popular until a not very distant past. The growing popularity of public transportation (namely, light rail) to the detriment of the private car, and the inexistence of a proper urban bus network, has been rendering these structures to ever-growing isolation. Another example was, however, more happily conceived: the *El Corte Inglés* was strategically implanted on the heart of Av. da República and, hence, literally located on the Metro line.

Devesas in A Crisis

The Devesas railway station serves the City of Gaia since 1863, year during which that railway section of the Northern line was opened. Several were the events and facets that from the very beginning provided this station with a very peculiar character. Noble families living in the surrounding area, receptions held in honour of celebrity visitors, the main industries playing a strong economic role in the area and its relationship to the Douro Wine Warehouse Stock are just some examples.

Recently, due to the deindustrialization process, sided by the choice of making General Torres rail station the crossing point between heavy and light rail (even though, for heavy rail it is not actually a station, rather a stop), Devesas has been losing its relevance. Public Administration has also, sadly, undertaken some road way changes that have contributed to the problem.

Devesas (Image 7) is nowadays nothing but a shadow of what it once was – isolated from the main road traffic paths and overcome by General Torres on the run for intermodality, it possess absolutely no strategic potential. The potential demotion of Devesas from station to stop is sadly considered.



Image 8: Triad Porto-Gaia, forming "The Kern".

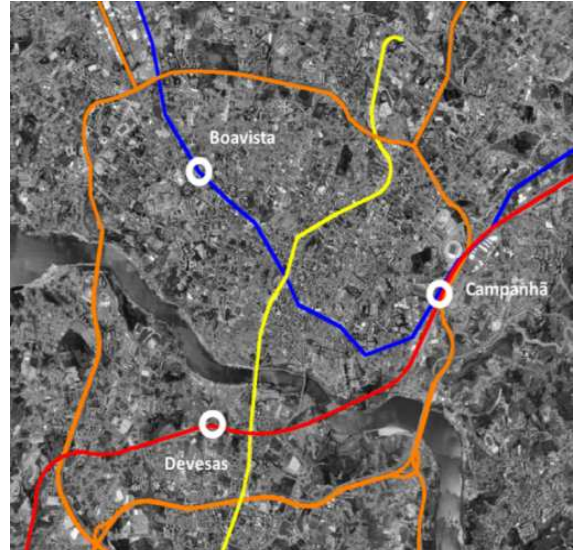


Image 9: mobility between the three vertices of The Kern.



Image 10: Porto's "Hard-Core" (HC).

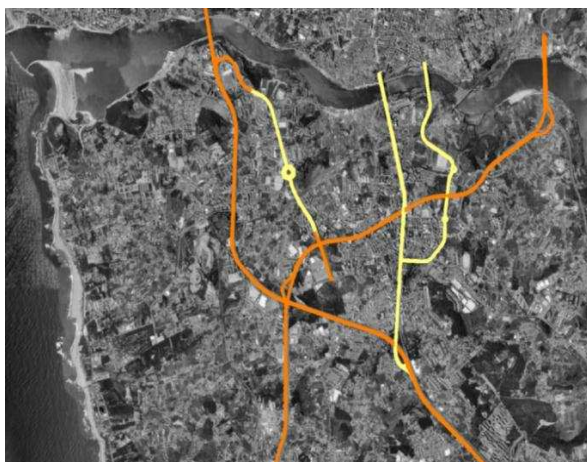


Image 11a: representation of a road network characterized by a lack of clarity and definition between different levels of service.

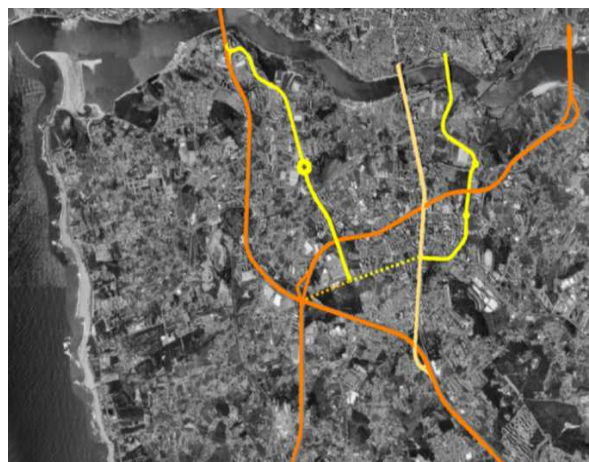


Image 11b: road network at aim, including careful adjustments to morphological features.

4. Opportunity for Intervention

Introduction

Just as defended by Ascher (1995), in his work *Metapolis*, it is crucial, nowadays, that we approach the concept of city, not as a perfectly (and geographically) defined urban area, rather as an epicentre of relational dynamics, that includes commuting flows, family relationships, business interactions and economic trends. More than ever, it is fundamental that our urban structures are embedded within this new reality, so much as conveniently empowered in order to be able to compete in the Global Urbanism new era.

Hence, the city of Gaia cannot be perceived solely based on its geographical or political borders. It shall rather be assessed within the relational structure it belongs to, namely and especially, when it comes to its relationship with Porto.

Porto's Master Plan (Diário da República, 2006) mentions that the region defined by the Northwest coastal area (Viana do Castelo - Braga - Porto - Aveiro) *"is conveniently provided with mobility infrastructures converging in the city of Porto"*. This network of infrastructures is hence articulated with Porto's suburban ring and therefore dubbed as the "Hard Core" (in Portuguese, *"Núcleo Duro"*) of a more holistic system (the area of influence of the Hard Core is represented on Image 10). This Hard Core is endowed with a certain territorial unity and continuity, which provide it with a very particular performance, though yet sparkled by several singularities.

In this Hard Core (and namely, in relation to its closer circle, defined by the Municipalities of Matosinhos-Maia- Gondomar-Gaia), we can count on about 1.2 million inhabitants throughout several relevant facilities and activities such as *"universities, facilities in the realms of health, culture, finance and logistic activities related with international commerce."* The whole Hard Core contains a population around 3 million and it is mostly lead by the existent transforming industry (mostly placed on the outer ring).

The Master Plan highlights the importance of introducing new governance structures that may stimulate intercity relations and synergies, not only at a metropolitan level but even more at a metapolitan one, giving relevance to relational dynamics just as much as territorial ones.

At this point, we must hence uphold this assumption as the starting point for a convenient restructuring of the urban tissue of Gaia – which is not at all competing with Porto, but rather in a close and constant partnership, as in to strengthen the Hard Core and launch it in this current international competition for positioning related to economic and market dynamics.

Our proposal is, therefore, based on measures that will allow the consolidation of the urban fabric "from inside out", aiming to stir Gaia-Porto interaction channels in order to accomplish two main goals. The first one, at an urban scale, is to consolidate Gaia's compact-platform, whereas the second is to stimulate it so that it can contribute to the development of higher strata of influence within the Hard Core itself and, further on, at a regional level.

Pressure Points for Metapolic Hard Core Consolidation

As we intend a metropolitan rather than a city scale approach, it is impossible to go any further without identifying the main points, both in Gaia and Porto, which can become the pillars of the restructuring process. Based on previously endeavoured studies (namely on Porto's Master Plan (Diário da República, 2006)), we will attend on the interconnectivity between three poles that are already relevant points of reference within the existent mobility system, but that could also benefit from an appropriate boost:

- on Porto's side, in the centre-west, Boavista;
- same side, rather east, Campanhã;
- and on Gaia's side, Devesas.

The Triangle (Image 8) formed by the connection of these three pressure points (from here on known as "The Kern" of the Metapolis) shall be the base for a strategic plan for land

consolidation, starting from itself and gradually growing in aim, extension and relevance to the scale of the Hard Core.

In order for this relational strengthening to make sense, we shall point out in which ways these vertices already relate to each other.

Boavista is one of the main centralities of Porto and the most oriented towards business and entrepreneurship agglomeration, and because of that it offers a high volume of services as well. There we can also find an important Metro station, Casa da Música, right on the path of four of the five existent lines, all connecting to **Campanhã**. Boavista is also important because of its aggregation of relevant traffic generators – such as high schools and universities, shopping centres, cultural and physical activities. When it comes to its accessibility features, it is directly connected to the VCI (internal ring road) and, thus to **Arrábida Bridge** and the outskirts of Porto, just as much as it is close to the city centre, through the direct axis Constituição-Damião de Góis and Av./St. Boavista.

When it comes to **Campanhã**, it is located in an area which has for several years been severely neglected by the Public Administration. Campanhã is nowadays hampered rather than favoured by its location. Its strategic positioning, close to Freixo Bridge, makes it the Eastern Gate to the city, which is actually enhanced by its relevant intermodality role as point of confluence between buses and both heavy and light rail. It is interesting to see how, in its vicinity, there are actually some interesting public facilities, but that are sadly underused and in need of some dynamization, such as the Municipal Swimming Pools and the S. Roque Park.

Referring to Devesas, its strategic location in relation to the structural heavy rail North-South mobility is remarkable to the point that it actually constitutes a mandatory stop in long distance journeys. In its vicinity there are education facilities, from elementary school to higher education, and once again, there are Municipal Swimming Pools. Its luxurious location, next to one of the main national-relevant roads and to Arrábida Bridge, was the main reason for the previously planned and established (or rather, intended) strategic policies.

It is, thus, easy to understand the connectivity weaknesses between the vertices of The Kern. When it comes to road mobility (Image 9, in orange), the circulation between Campanhã and Boavista, either through VCI or through urban traffic, flows easily and efficiently. However, both at West and East, there are severe issues in accessing Devesas. Starting from Campanhã, getting to Devesas can actually be classified as tortuous, regardless whether one does it through Freixo or Infante. At East, the biggest issue lays upon the short way between VL8 and Devesas, which due to poor traffic way organization rises to the complexity of a herculean labour.

Furthermore, public transportation wise, there is a direct Metro connection between Campanhã and Boavista (in blue, on Image 9); the connection between Devesas and Campanhã is also a direct one, through heavy rail (service provided by CP¹⁹⁴, in red on Image 9) which is included within the intermodality scheme. However, between Boavista and Campanhã there are severe ruptures in public transportation service, being that only two bus lines enter Gaia through Arrábida, without any of them establishing a connection to Devesas.

This seems to be just the perfect moment to provide a little constructive criticism, as far as other modes of traffic are concerned. The tram works nowadays only with three operational lines that were recently taken away from the intermodality scheme, turning it into a merely touristic attraction/ride. One would expect that, on the XXI century, there would be the urge to invest in alternative means of transportation in line with new lifestyles, raising urban environment, health and safety conditions, and leading society to a more sustainable way of enjoying urban living.

The absence of appropriately conceived pedestrian paths and a decent tram network are indicators of a severe lack of care and vision. Also, the sad subversion of the non-motorized traffic-oriented features of **Arrábida Bridge**, disables its connectivity to the level of the waterside and its related activities, which is another indicator of a lack of interest and

¹⁹⁴ CP stands for “Caminhos de Ferro Portugueses”, the Portuguese Railway service provider.

consciousness in promoting an eclectic and sustainable lifestyle, as it was actually previously intended.

5. Intervention Strategy

This strategy must, first of all, be divided in distinct scales of action. Accordingly, we distinguish firstly a Metapolic Scale, aiming to consolidate the Hard Core and, thus, the Metapolis itself, following an “inside out” approach, especially focused on accessibility and mobility as much as in articulating the vertices of The Kern. However, so that Gaia not only beneficiates but also contributes to the system, some Local Scale measures shall also be undertaken, aiming to provide the urban-platform with cohesion-stimulating dynamics, and strengthening a sense of identity that is, at the moment, at such a frail state that it has absolutely no means of recovering on its own its long gone vitality.

The Metapolic Scale

Road & Traffic Restructuring – Forming an Urban-Platform

As previously shown, the lack of hierarchical organization in the road network is one of Gaia’s biggest issues, resulting in both fragmentation of the urban tissue and traffic congestion. Gaia’s character as one of the main crossing lands for North-South movements led to an overestimation of national roads in road categorization. Accordingly, Gaia is crossed, at the same level, both by A1 and IC23, as much as by VL-type roads (supposedly intended to be of a more urban style but rapidly subverted).

It is, thus, easy to imagine that all these arteries and vessels are so entangled that, on site, it is almost impossible to distinguish the ones that are relevant at a national level, from the ones supposed to be serving the local scale. On Image 11A, the national road network (in orange) and the urban road network (in yellow) cross and meet each other in a promiscuous non-effective flow, preventing the network as a whole to work at its highest potential.

The most acute case is the one concerning VL8 and VL9 (both almost entirely represented in yellow, with exception from their subverted sections, which were kept in orange). Both roads should have a purely urban character, allowing other means of transport to share their way, but for political, economic or strategic reasons, it never happened. Thus, the currently displayed motorway-like profile, which can be seen almost all the way along their extension.

The area urgently calls for an intervention! There should be a proper road hierarchy that could organize different profile roads according to their role as to the scale they are supposed to serve, so that there can be a proper improvement of the service, along with an enhancement in the urban environment. Connections between roads should provide ease of access, traffic flow, safety and comfort to their users.

This improvement calls for the implementation of structuring measures that may allow deviation of some traffic running on congested roads and the inclusion of other means of transportation, such as light rail and urban bus. It is essential that both VL8 and VL9 be redesigned and provided with only one way (in each direction) for motorized traffic, pedestrians spaces, bicycle paths and public transportation-only lanes. Only through such can we truly ensure an urban circulation, public space implementation and, finally, pedestrian traffic generation. Our proposed design shall consider a future light rail implementation, similar to the one in Av. da República.

Lastly, we propose that VL8 and VL9 become linked (dotted line on Image 11B) through prolonging the latter until Avenida dos Descobrimentos. Creating this urban ring road would also deliver both private and public transportation access to the shopping centres, while stimulating land attractiveness in the vicinity throughout its extension, promoting further cohesion and homogeneity. This action would require correction of the previously implemented defilling measures endeavoured on VL8 in the 90’s. Its initial section (between Arrábida and the Roundabout Eng. Edgar Cardoso) adapts itself to the surroundings it crosses, but then it is suddenly overridden by a road aiming to connect very specific points, Roundabout - IC1 – IC23,

absolutely detached from its surroundings and preventing any contact between its previously connected margins.

The aim is to provide VL8 with an urban vocation that may allow it to articulate functions that are, at the moment, incompatible. The proposed challenge can be compared to the one endeavoured in Barcelona, through the redesign of the Ronda de Dalt, “(...) *placing this road infrastructure as basic component of its urban organization e backbone to all the different vertebra that are part of the metropolitan city*” (Barcelona, 1987).

Also, in this case, it is our intention to transform the previously stated section in a double-goal project: firstly, a structuring urban road, that collects moderate traffic; and secondly, a path that assures local level connections promoting a neighbourhood-like interaction alongside all its extent. Also pedestrian traffic shall be privileged over motorized one, in the sense that it constitutes the first and ultimate condition of urbanity.

During the course of such an operation it is also important not to disregard its image, particularly in relation to its surroundings. Different land patterns and building scales can only be solved by a surgical, sensitive, urban design operation in order to provide the project and its eventual development, with homogeneity, clearance and flow.

Starting in the 80's, several projects like the proposed one were undertaken. Also the Via de Sant Denis, in Paris, was very successful in its aims. The reconversion of VCI, initially intended to be “(...) *a large afforested avenue*” (Garrett, 1952), was widely discussed but was never put in practice, remaining until today an impediment to achieve a quality development of the city.

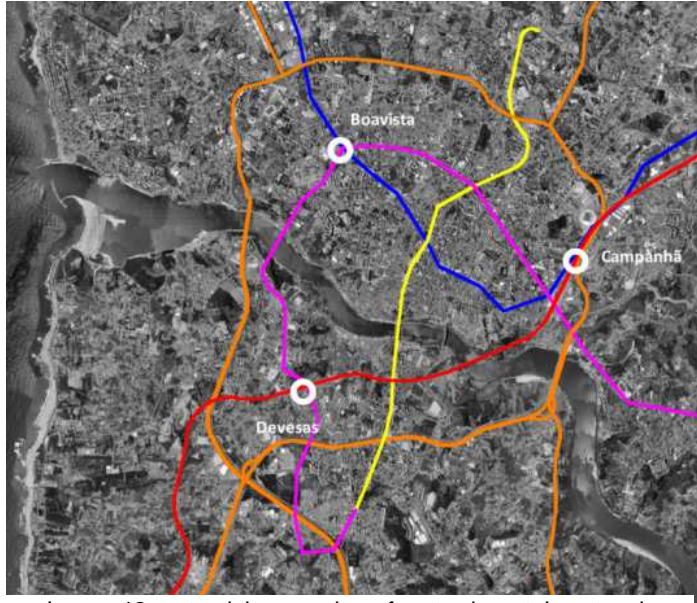


Image 12: potential expansion of metrodoporto's network



Image 13: Ponte do Gólgota (prototype) conceived by Adão da Fonseca and Siza Vieira.

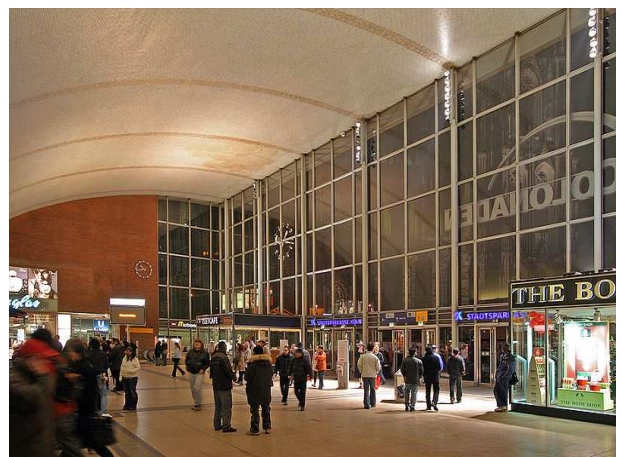


Image 14: Cologne (Germany) Central Station2



Image 15: on the left, example of a solution for connecting different heights; on the right, Gaia's cable car.



Image 16: intervention area.



Image 17: different patterns of urban tissue, similarly fragmented.

Public Transportation Systems

The actual “crisis” conjuncture may actually open the way to investing in opportunities that were previously understated or rendered uninteresting or inopportune. We acknowledge that one of the most pressing needs is to promote transversal (East-West) movements within The Kern.

Quoting from Porto’s Master Plan, *“The degradation of circulation conditions associated to an inadequate collective transportation system, were the determining factors for adopting the light rail as a product in position to respond to Porto’s population’s needs and interests.”*

This project has so far comprised connections from the centre of Porto to Póvoa de Varzim and Maia (ISMAI), on the North, to Fânzeres (in Gondomar, Northeast), to Matosinhos (Northwest) and to Santo Ovídio (Vila Nova de Gaia, South).

All these connections converge upon Trindade central station and come to confirm what was settled by the Master Plan. Yet, there is still the need to promote other mobility patterns, namely concentric, rather than radial.

While the plan was being elaborated, there were proposals for expansion of this network. Some of these were not taken forward as, for instance, a line *“connecting Av. de França, going South up to Devesas, contemplating a new crossing over the river”* and *“a new line connecting the South of Matosinhos and Boavista (Av. de França), all the way along Av. da Boavista.”* (Redacção / CP, 2008) Unfortunately, these aspirations have gradually been forgotten – yet, we consider that, under the scope of this report, it makes sense to take a closer look into this matter.

On Image 12 we can see a diagram portraying the potential expansion of the Metro network. This proposal, endeavoured by FEUP¹⁹⁵, contemplated not only a direct connection between the blue and yellow lines, but also a circular one, connecting Campanhã to Vila D’Este (Gaia), that would cross the yellow line North and the blue line in Boavista, going South to Devesas and meeting the yellow line back again in Laborim (South of Gaia). Under the scope of this article, it is more important that we actually elaborate on the Boavista – Laborim section, since the remaining path is, at this stage, irrelevant.

It is obvious that such operation would deliver a huge added value to all three vertices of The Kern (Image 8). Besides promoting immediate strengthening of socioeconomic relations, it would also enable the articulation of this new line with both the yellow line and the high rail system, thus multiplying commuting options between Porto and Gaia by allowing the establishment of public transportation routes on the East-West direction.

In order for this proposal to be put in practice, a new crossing over Douro would have to be implemented, so as to provide support to the new Metro line. We stress the relevance of the proposal presented by Adão da Fonseca and Siza Vieira, the Gólgota Bridge (prototype on Image 13). This would be a reinforced and pre-stressed concrete bridge with a precasted box girder deck, with a total 800 metres length and a central span of 155 metres between the pillars. It would be erected between the Gólgota steep (in Porto) and the eastern Arrábida steep, in Gaia. Besides harbouring the circulation of the Metro, it would also harbour road and pedestrian traffic. The lower deck crossing would complement Luís I Bridge, developing a huge roundabout-like movement, and thus improving circulation between both margins.

Under the scope of this report, we support the retrieval of this project, including the implementation of the new Metro line and building the Gólgota Bridge, so that a more effective articulation between the three vertices of The Kern can, later on, contribute to the consolidation of the Metapolic system. However, let us not constrain ourselves to this only means of transportation. For better articulation of the bus service network, we propose the polarization of part of this service in Gaia, along with a subsequent reformulation of its entire operating scheme so that it can actively complement the interaction between the new line, and the already existent one yellow line. It would then be up to the urban bus service to ensure an East-West circulation,

¹⁹⁵ Faculty of Engineering of the University of Porto

aiming better and more cohesive territorial coverage. When it comes to the collective intercity transportation, it is addressed simultaneously to the matter of the interface.

The Transport Interface

There is a pressing need for stimulating public transportation in order to provide a service to the urban platform (also with possibility of transcending its borders). However, in order for this service to be delivered in a more sustainable and stable way, it is important to find a point where all different kinds of service can converge. According to the current scenario, it would be expectable to choose General Torres, in Gaia, for such purpose. Still, there are morphological and functional constraints about its surroundings that hinder such an operation.

The vicinities of Devesas could be an excellent focal point to support the evolution of an urban bus network in Gaia. In order to accomplish good results, it is important that the structuring of such service is led the same way it is on the Porto side. That is to say that, instead of only comprising paths aiming to arrive to or depart from Porto, the inner transportation in Gaia shall be assessed independently and with special attention to serving movements perpendicular to these commuting ones in order to reinforce centralization and urbanization dynamics.

As an example, we present the case of Cologne Central Station, in Nord-Rhein Westfallen, Germany Transportation Interface. The station is an important local, national and international hub, with many intercity and even international trains calling there, as well as regional and local “urban” trains. On an average day, about 280,000 travellers frequent the station, making it the fifth busiest station in Germany. Connection to local tube lines is provided by two underground stations, one on each side of the main hub. At the entrance level, we can find a large shopping facility which includes 70 shops and restaurants with over 11,500 square metres of retail space and 700 employees. Both mobility and proximity services are thus assured, allowing the promotion of opportunities related with social and economic dimensions.

Such enterprise constitutes a great example of what could be implemented in Devesas. Additionally, public transportation only lanes shall be considered throughout the entire urban-platform area, so that the articulation between all three vertices can be achieved as effectively as possible. Also a certain standardization and synchronization shall be ensured, when it comes to the long-distance road public service providers. Nowadays, they operate random, almost erratically, and it is practically impossible to have access to an actual timetable or to fully understand how the service is actually (not) being provided. Inducing them to converge in Devesas would allow the establishment of synergies towards better synchronization and an overall better service, perhaps even contemplated in intermodality schemes.

However, other means of transportation are to be considered. Porto and Gaia are predominantly hilly and so it can be particularly hard to wander around. Pedestrian paths connecting high and low levels commonly show severe signs of degradation, constituting a big challenge for those in need to circulate through them on a daily basis. To older users, this often generates feelings of fear and insecurity, which usually leads to social segregation and degradation, as many end up resorting to reclusion. Similarly, some services dwelling in the area are rendered useless due to the difficulty experienced by the public in accessing them. The same happens when it comes to tourism, which is severely deprived of any possibility of development due to poor accessibility and mobility.

It is in the interest of the Municipality of Gaia to rehabilitate accesses and paths, even to create strategically placed ones, so that an effective connection between different levels can be achieved. Other creative solutions can be considered as, for instance, the inclusion of Gaia’s cable car in the intermodality scheme (Image 15, on the right side), similar to what already happens with Funicular dos Guindais on the opposite side of the river. Such action would enhance the pedestrian mobility potential of the area, providing access also to Devesas. Other options could be explored, such as a public staircase, like the one in Barcelona shown on Image 15 (on the left).

These solutions need to be firstly articulated and/or complemented with a convenient reformulation of pathways dedicated to pedestrian and non-motorized traffic. At a local level, these will be further explored.

The Local Scale

The local scale intervention shall focus on preparing this territory not only to receive but also to benefit from new uses and purposes, resulting from the Metapolic Scale intervention. It can be easily inferred that the surroundings of Devesas would certainly fall under the spotlight. However, nowadays, this vicinity displays such frailty that a careless strategy could actually backfire, jeopardizing the entire operation.

Hence, so that this (new) centrality can be (re)created, we decide to start from the methodology built by Montezuma (2005), according to which a centrality shall be based on four greater pillars: policy, economy, public space, and culture and society. We introduce each and every of these parameters in separate subsections, followed by a collection of assumptions and suggestions.

First, however, a few contextualizing remarks.

Both because it covers a vast area and because we can still perceive fragments of its past, our area of intervention gathers several different zones: the Douro Wine Warehouse stock connected to the production of Port Wine; Av. da República (consolidated urban axis, formerly on the path connecting Lisbon and Porto); Devesas (nationally relevant heavy-rail station); and the Devesas tile factory (national industrial heritage). Due to this diversity paired with its relationship with Porto's historical centre, this area gathers unique conditions for articulating history, *urbis* and natural environment, stimulating social cohesion, creating spaces where nature, urbanity and population relate and connect with each other.

Our proposal aims to promote a communion between historical memory and a future to come. The proposed actions aim to retrieve human professional activities (commerce and services) and leisure in perfect consonance with the character of the Douro Wine Warehouses stock area itself – unique in its essence – as belonging to the historical memory.

This centrality shall have two main components: a first one, of complementarity to the consolidated axis of Av. da República, and a second one, of articulation and valorisation of the Historical Heritage with the area surrounding Devesas.

The qualification of the city depends intrinsically on the intensity of its use, in sense that this feature is the starting point for the creation of activities, and for a complete and whole public space appropriation by publicist users. We believe that only acting on each and every of the several fragmented identities, can actually allow some strengthening of the logic of citizenship in close relation to quality of living.

Gaia is located in a territory severely regarded as profusely dispersed, so the primary goal is the compaction of the central urban-platform. Concerning the socioeconomic realm, we shall mention that the city centre (Av. da República and its surroundings), still constitutes a strong concentration of a vast set of diverse activities, even though it is still extremely dependent on this axis. For this area to be further consolidated we propose a set of actions; but it is also important to understand that there should be an effort in directing investment towards the area comprised between VL8 and VL9.

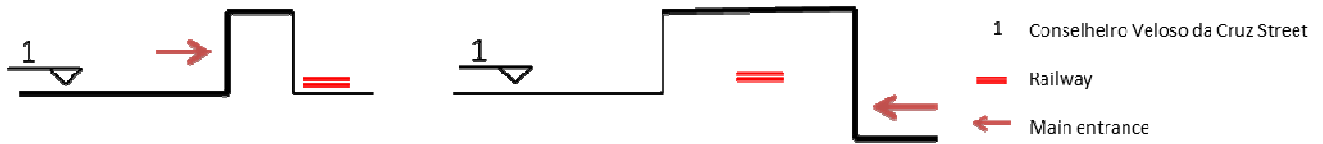


Image 18: inversion of Devesas



Image 19: view from the current entrance (on the left); area where new access shall be open (on the right)



Image 20: The Gate – “seeing Porto, looking through Gaia



Image 21: Hamburg (Germany) intermodal interface.

Policy

There is a severe need of establishing political commitment so that a strategic policy for urban dynamization under the new circumstances can be successfully crafted.

The implementation of new services related to mobility and opportunity fostering shall open way to entrepreneurship of urban acupuncture (Portas, Cabral, & Domingues, 2011), which shall cover the most populated areas and promote social complementarities and eventually prompting externalities at a local or environmental level.

Even though Local Administration has acknowledged the importance of the “building stock” (beyond its heritage value), there was never a strategic programme comprising the retrieval and appropriation of the entire building stock.

Hence, it is important to consider the creation of an “aperture” on the high level (southern edge), an entering gate providing access to the Douro Wine Warehouse stock area and thus providing a clear view of the rooftops as ultimate and most preponderant element of this public space, establishing a continuum that makes its way to the river and further on to the historical centre of Porto. The heritage-related mind-set is currently open to a more flexible and less constrained by temporality understanding. The inventory and the reflexions gathered in the work *Portugal: Arquitectura do Século XX*, coordinated by Ana Tostões (1998), clearly show that it makes just as much sense to preserve what is antique, as what is new; both modern and antique assets are levelled when it comes to their relevance to the urban memory.

The pattern of usage distribution can actually be thoroughly understood, when looked into more carefully. North from Devesas, we can see the Douro Wine Warehouse stock (in brown, Image 17), historical Heritage of Excellence, degraded, borderline obsolete, expectant. Adjacent to it, there is also the Castle of Gaia and its surroundings – an intricate, landlocked module, product of a severe lack of interaction with its outside.

Av. da República (thus our main urban consolidated axis) is located eastern from Devesas (in orange on Image 17). It brings alive the civic centre in all its completeness, concentrating all main public services, and achieving its higher relevance by fostering passage to the Metro line and allowing the placement of the prestigious shopping facility *El Corte Inglés*.

Rua do Conselheiro Veloso da Cruz (in yellow), gathers an important set of public facilities (such as the Municipal Courthouse, the Municipal Hospital, the Museum of Teixeira Lopes and the Sophia de Mello Breyner Archive) and Quinta da Boeira (a Manor house dating from the late 1700's, closely related to the Porto Wine Heritage and recently converted into an eclectic space with auditoriums, arts & crafts exhibitions and gardens, among others). This street could definitely constitute an excellent connection to the civic centre. Its walkability is sadly broken by the existence of a derelict industrial asset stock, losing its structuring character and playing a far lesser role in urbanity.

Hence, the Policy vision consists in investing in the stimulation of functional and morphological reorganization dynamics. Only through them can we actually make the most of the recently endeavoured infrastructures and facilities, including them in a broader view. Sewing together such different patterns constitutes the biggest part of the challenge of promoting urbanity, against a fragmentation trend that prevents any kind of development and growth. It is crucial that new uses and activities are stimulated, in a both integrated and holistic approach, articulating and yet supporting every single pattern, allowing snowball effects towards territorial cohesion.

Economy

Also from an economic point of view, shall the city be valorised and empowered. Just as Portas (2011) states that *“the challenge goes through transforming infrastructure in structure (...) not only so that it serves urbanization but especially so that it can provide space with order, sense and legibility.”*

If we analyse the current functional structure of Devesas Station, as it heads South, we can easily understand how it acts like an insurmountable barrier, accentuating differences and

allowing isolation of each distinct reality, to an extent that they merely coexist without ever touching each other. This barrier is an unavoidable issue calling for immediate action.

The solution includes an **inversion** of the actual orientation of the station itself (Image 18). Its main access shall be, as opposed from what happens nowadays, facing North, allowing the delineation of a new direct connection between the Douro Wine Warehouse stock and VL8. The access through Rua do Conselheiro Veloso da Cruz shall thus acquire a secondary role (Image 19). The station shall be affirmed as a large-scale urban enterprise, capable of not only occupying a current derelict, empty space but also providing it with activity and urban vigour. It shall, therefore, contribute to the formation of a Collective Facilities System¹⁹⁶ capable of structuring and qualifying its surroundings.

Devesas shall also acquire the role of a kneecap in a mechanism interpreting two different roles: firstly, a distributional role, serving as a connection of VL8 to the local traffic; and secondly, a cohesion role, as point of convergence and confluence of all the different dynamics surrounding it.

Through the conception of this aperture (as we choose to call it, *The Gate*), we aim to promote a new way of looking over the city. We aim to allow, for the first time, a magnificent view over the Warehouse stock rooftops, with a very familiar image on the background, launching a brand new (yet, not unknown) *motto* for identity: “**seeing Porto, looking through Gaia**” (Image 20). This can be the perfect representation of an inseparable everlasting partnership between both cities.

As an example, we introduce here the case of Hamburg’s main station, itself adjacent to a historical centre limited by a waterline. On Image 21 it is clear that its magnificence does not clash with the surrounding scale – an aspect that could raise some reluctance among the least faithful.

The historical centre, ever in history closed in on itself, can also be provided with certain permeability, making way to new uses and activities.

Accordingly, the economic valorisation of the intervention works at two levels. The first aims at stimulating the settlement of proximity services – both necessary and complementary to a good performance and usability of the transport interface. The second comprises creation of new opportunities, allowing entrepreneurial dynamics to work through exploring a far long forgotten and disregarded area.

¹⁹⁶This concept was introduced by the work of Portas, Cabral and Domingues, “*Políticas Urbanas II: transformações, regulação e projectos*” (2011), and is, in Portuguese, referred to as SEC (Sistema de Equipamentos Colectivos).

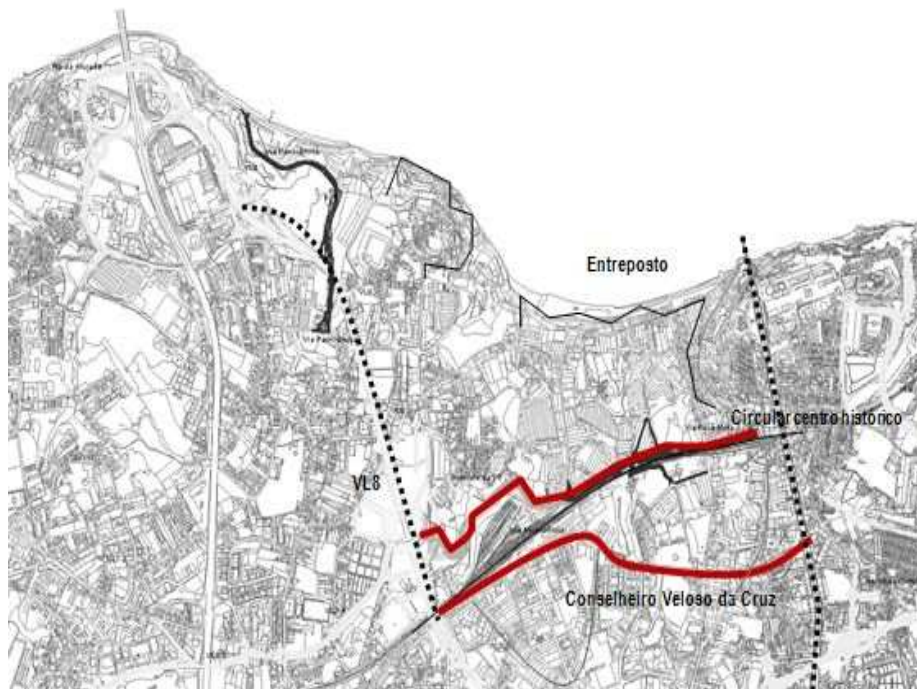


Image 22: morphological conformation of the new centrality.



Image 23: expectant urban voids.



Image 24: strategy for intervention on public space.

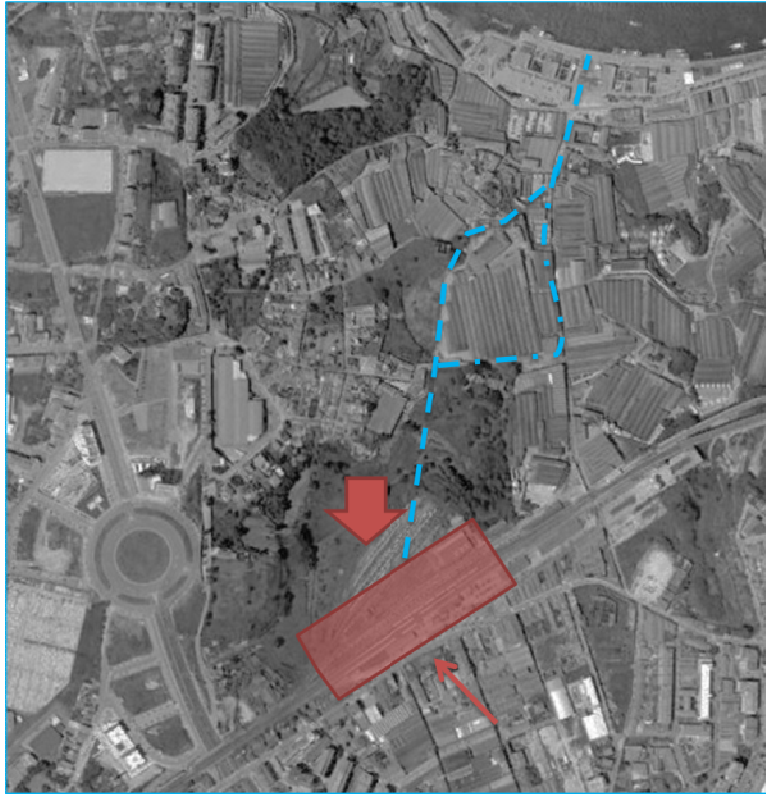


Image 25: schematic representation of the permeability intended for the



Image 26: from left, to right, Bibliotheca Alexandrina (Alexandria, Egypt), Mercado de San Miguel (Madrid, Spain), Mattatoio (Rome, Italy).



Image 27: from left, to right, *Mattadero* (Madrid, Spain) and *Espaço Lófte* (Porto, Portugal).

Public Space

None of the previously stated proposals can actually be successful if public space is not up to properly supporting and fostering these implementations. Therefore, a few, more or less surgical, interventions shall be done, within a very meticulous approach.

On Image 22 we can see a schematic representation of the new centrality in construction. The space confined between the two red lines constitutes an unspculated urban void (Image 23), privileged as close to the historical centre and able of establishing a close connection between the Warehouse Stock, the Civic Centre and Devesas.

For further operationalization, we identified three points, which after a convenient articulation, will be able to provide the intervention with sustainability and flexibility:

- on the West, Devesas;
- on the Northeast, the Metro stop General Torres;
- and on the Southeast, the City Hall (as representative of the Civic Centre) (Image 24).

From these places, we can trace three main interconnected paths. Between the two eastern points, mobility is ensured by the Metro line causing, hence, no concern. However, both points are poorly connected to Devesas and this shall be carefully addressed. The Historical Centre Ring Road (*Circular ao Centro Histórico*) is being built, but care shall be taken in its definition, so that its impact may actually bring all the advantages it potentially can. When it comes to Rua do Conselheiro Veloso da Cruz, there shall be an absolute renewal and redesign project, so that pedestrian traffic can be privileged over the motorized one.

These interventions are essential for a very much needed improvement in legibility and focus on the human scale, promoting a quality urban environment. The previously mentioned voids are by us perceived as a unity *per se*, an agglomeration of different shapes, left-overs from dissociated, disarticulated actions: a “no man’s land”, left to effects of imminent obsolescence.

Our proposal is that an intervention is made, not only in the sense of framing and articulating building stock and paths, but also in close relationship with the landscape and with its role in connecting both high and low levels, for freer fruition by its users. Our proposal includes several levels and ways of mobility, promoting choice of movement and permeability. It is overall intended to foster the phenomena of appropriation, so that the project can actually accomplish its goals in contributing to a firm and stable Collective Facilities System. This appropriation shall happen at several stages and levels of approach, harbouring diversity in activities, in intensity of usages and allowing both active and passive phenomena of appropriation, regardless of age, sex or status of the individuals.

When it comes to the area comprising the Warehouse Stock, it shall be subjected to an operation so that it can create a network of paths leading to the Riverside (as represented on Image 25). We highlight the importance of proper path classification, with careful distinction between road and pedestrian traffic, providing the area with the opportunity of being scattered, lived, enjoyed.

A functional study of the area shall cover morphological aspects, but shall also advocate for human needs, such as fruition and leisure, resting or contemplation-oriented spaces and even facilities, such as public toilets. We shall point out that, in this case, these aspects are for the most part important due to the area’s particularly hilly topography. In face of such such an enterprise, Devesas can actually play the role of The Gate to the city, establishing a clear articulation between the historical centre and the civic centre.

Finally, so that this operation can also promote a better interaction with Porto, there shall be careful consideration in intervening on the nodes that allow access to the bridges, particularly, **Arrábida**. These only allow access to motorized traffic, discarding other means of transport, especially the lighter ones, such as cycling and walking.

Culture and Society

This last parameter will assume a stirring role, capable of providing the strategy with a consistent and sustainable structure. In order to assert a hidden (almost totally forgotten) sense of identity, a close cooperation with local population is essential, opening the way to inclusive and entrepreneurial dynamics. We aim to develop through integration, to renew through preservation. If, on the one hand, the empty spaces can be qualified into fruition spaces, when it comes to building stock, the situation aggravates.

This (new) proximity to a strong mobility interface, new accessibility and a new urban environment, may act as strong investment attractive aspects; it is, thus, crucial that it is prepared to be in the spotlight. We strongly recommend that the building stock is (re)used and (re)qualified, as fully as possible, with attribution of new uses and activities. When it comes, for instance, to the case of the Warehouses, and pointing out that the most important priority is to preserve the rooftops, it is important to contemplate providing these structures with as much flexibility and adaptability as possible. Taking advantage of the settlement of some education facilities nearby, like ESTSP (Higher School for Health Technology of Porto), services providing support to educational activities can be an option. These may include student dorms, spaces for exhibition, spaces for studying or working in groups, and even start-up incubators. It would also be interesting to consider fostering research activities, in order to provide the whole programme with more sustainability.

Similarly, there shall be a strong commitment to developing tourism, not only connected to the Warehouse stock, but also to the Castle of Gaia. Complementary activities shall always be considered due to their singular role in blending different uses – this is the case of proximity services, such as cafés, bakeries, supermarkets and restaurants, so that new users can feel attracted to discover and enjoy this new built environment. This hype shall not only be introduced, rather consolidated and made to last.

Nowadays transformations occur at an amazing speed, making it difficult to make a plan that could work yesterday, today and even tomorrow. It is, thus, very important to stimulate a capacity for following these constantly evolving phenomena. These structures shall, hence, be capable of harbouring different uses, aimed at different publics, so that their eclecticism may be the highest possible.

On Image 26 we can see a good example of what could be done in such a case. This is the Market of *San Miguel*, in Madrid, Spain. This structure not only harbours a fresh produce market, but also stimulates the popularization of regional products, while providing its users with an inviting environment fit for a break or an after-work relaxation moment.

When it comes to the wideness and permeability of the spaces, it is represented with reference to the example of the *Bibliotheca Alexandrina* (in Alexandria, Egypt, Image 26), a building that hosts both a library and a culture centre, keeping high levels of visual permeability that can be taken as inspirational features for the case at hands. While addressing small size structures, one can take in consideration the example of *Espaço Lófte* (Image 27), in Porto. It is not more than a room that has had several different functions through time and that, post-rehabilitation, became a polyvalent space that accommodates temporary projects, such as concerts, meetings or exhibitions. Also, in this case we are talking about a wide aired out space, subjected to a variable configuration, depending on its use and on the activities to be sheltered.

In line with this interventional challenge, some other examples rise, such as the *Mattadero* (Image 27), also in Madrid, or the *Mattatoio*, in Rome (Image 26). These are precious gems when it comes to represent in which way dynamization can assume different shapes and sizes, and impact so deeply on its surroundings, to the extent of constituting an incredible legacy.

It is to this extent that Gaia shall transform this derelict building stock into an *avant-guard* engine for development.

Museumifying (sic) people and edified heritage is to lock a city away in the past, preventing it to follow a natural and enriching evolution. The city is a living organism, a fabric darned with the threads of different times, crossing human tissue, presenting it with life through generation after generation.



Image 29: part of the plant defining Land Uses – PDM '09.

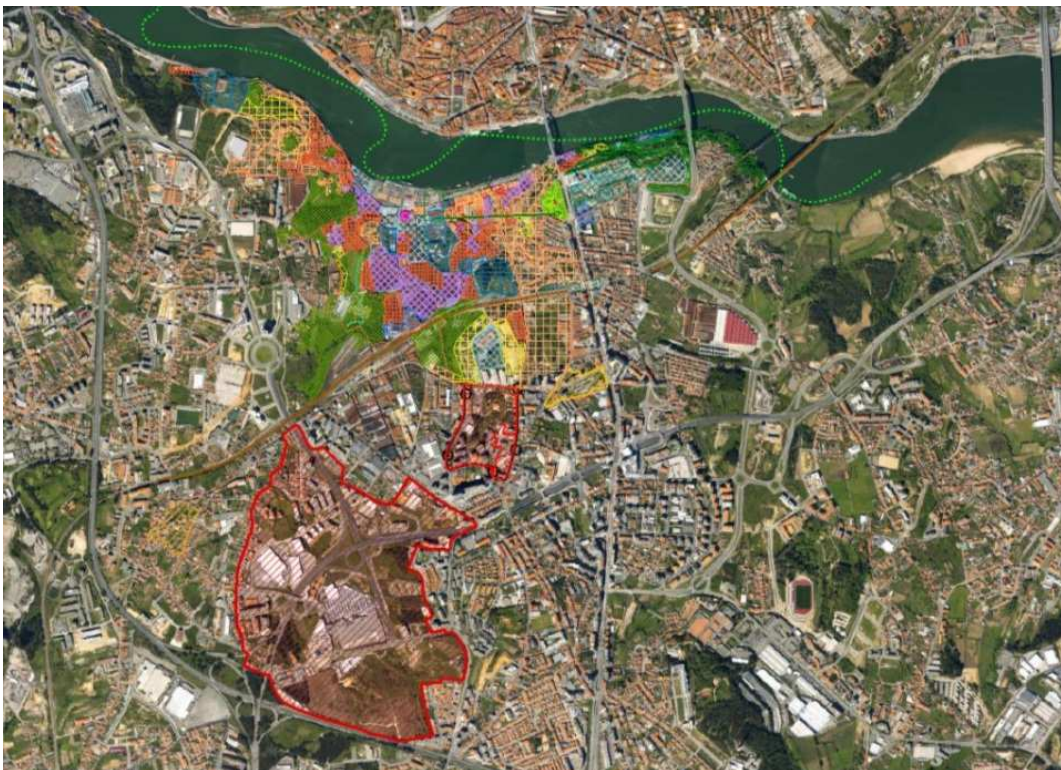


Image 28: area defined by Land Planning Instruments (PMOTs , in red and orange) and land categories comprised in the strategic document(Masterplan, colourful area)

6. Programmatic-Basis for Master Plan Alteration

Gaia's Master Plan shall deliver important public policy objectives and, in line with this goal, some recommendations are hereby gathered. Hence, it shall comprise the following.

- Set an operationalization plan to restructure the road network, so that different levels of services can be distinguished. In this sense, the following shall be considered:
 1. (Re)converting VL8, so that it reacquires the urban character it was supposed to have from the very beginning;
 2. Promoting a connection between VL8 and VL9;
 3. Establishing a connecting node to allow access from VL9 to Av. da República.

- Assure mobility and accessibility throughout the entire Municipality, in order to stimulate the consolidation of The Kern, through the articulation of its vertices.
 1. Implementation of a new Metro line that would establish a direct connection between Boavista and Devesas. Under this proposal, also the erection of a new bridge (Gólgota Bridge) shall be considered. To keep an harmony with the so well-known bridge landscape – highly connected with the identity of the relationship Porto-Gaia –, a higher level of crossing shall be preferred to a lower one.
 2. By making use of intermodality schemes, namely articulating heavy and light rail, promotion of a better connection between Campanhã and Devesas.

Through the creation of a transportation interface on the site of Devesas's rail station, the implementation of a convergence point between different modes: heavy and light rail, intercity bus and urban bus.

- Guarantee mobility and accessibility through the Municipality of Gaia, especially in the directions through which its performance is the least successful.
 1. East-West. There shall be a strong effort in assigning dedicated lanes to road collective public transportation. This measure shall be followed by an absolute reform of the urban bus network in Gaia, along with its polarization in the previously mentioned interface, allowing an articulation between local and regional scales.High level-riverside level. Through endeavouring a restructuration path, establishing structuring axes between VL8 and the riverside, with special concern for other modes of traffic (such as bicycle and walking).
 2. Change of typology within the urban platform, transforming the areas currently assigned to commerce and services to mixed classification, so that urbanization from East to West, can follow its course.

- Convert the space confined by Rua do Conselheiro Veloso da Cruz and the Historical Centre Ring Road, into a public fruition space, so as to qualify it and give it back to the public realm. This area shall be totally reformulated in order to contemplate wide and open spaces, particularly green ones.

It is recommended that the orientation of the station is inverted. The main entrance to the station shall thus be done north, and the actual southwest access shall acquire a secondary role. This action shall contribute for an identity stimulus in the area, based on the connection to the warehouse stock, on the valorisation of its formal specificities and preservation of the existent heritage (Devesas Tile Industry, Warehouse stock, Quinta da Boeira) and heritage to come (such as the transportation interface), ensuring a high potential of urban affirmation.

- Stimulation of the third sector with use of the Warehouse stock heritage and the industrial stock heritage. We recommend that adaptability and flexibility are kept at their highest levels, so that these projects can better face nowadays rapid pace of evolvement.

Legislative Opportunity

This proposal fits what is established on the Portuguese Decree-Law 380/99. Series I of 1999-09-22, which regulated the modifications to the Land Management instruments. According to section 93^o of the same, these instruments are subjected to possibility of change, arising from evolution of social and economic development assumptions on which they have been based.

Besides the Master Plan, there are other three municipal planning instruments (PMOT) in force. Also these shall be modified, in particular when it comes to the Detailed Plan of the New Civic Centre¹⁹⁷ and the Urbanization Plan of Barrosa¹⁹⁸. On Image 28, one can see the different scopes of intervention related to the different documents.

Articulating the Master Plan with Other Legally-Binding Plans

Detailed Plan of the New Civic Centre

This instrument resulted from a feasibility study which main goal was to accomplish “a wide space around the City Hall”, promoting a valorisation of the border space adjacent to its headquarters.

The City Hall location within the urban fabric, along with its round corner positioning, are part of the previous urban model consecrated in Av. da República. As previously explained, the way this axis was articulated with the national road network and the suburbanization process of Gaia went through from the 70's onwards, were extremely contributory to the path the avenue went through. Also an expeditious policy based on alignment and height restrictions induced changes that, although with positive outcomes in relation to functionality, were highly disqualifying for this axis ambience.

This Plan did not, however, suffice. The execution of the square designed by the Architect Alcino Soutinho, is nowadays experienced by a crowd with little interest in leisure activities, severely diminishing for collective activities. It is thus just a free space, contiguous to the City Hall, mainly used as crossing path and corresponding only briefly to its intended use as civic centre. As to the Plan itself, it covers only the traditional and restricted definition of civic centre, stuck to form and function constraints. According to our proposal, the role of the civic centre shall by far surpass that, and so this definition asks for resolute update and reformulation.

Urbanization Plan of Barrosa

This plan, which was created in order to constitute a modification to the previously in force Master Plan was approved on the 29th of December 2008. Its main goal was to value and qualify the existing urban elements and structures, consolidating the uses defined for the Operative Units of the “Central Area of Barrosa”, which were supposed to define and guide the development and occupation of the available areas.

The investment made in VL8 was aimed at fighting the imminent obsolescence of the present activities and the subsequent transformation of that area into a residual urban area. The intention was to stimulate immediate consequences on the tertiary sector, as much as allowing a new acquired visibility of the large shopping centres.

The execution of this plan was led to the responsibility of the private sector, in exchange for certain compensation. What we can infer is that this instrument originated certain confusion within the road network, as a result of inequity, precariousness and poor improvisation. Projects like the one led by Consfly, or the intention of implementing a logistic plant for IKEA, were supposed to have been structuring ones, and thus provided ground for the elaboration of the

¹⁹⁷ Plano de Pormenor do Novo Centro Cívico.

¹⁹⁸ Plano de Urbanização da Barrosa.

plan. The Master Plan itself adopted the same strategy, having classified this area as predominantly for the tertiary sector's usage (Image 28).

The fact that these projects were never successfully accomplished, throughout the economic conjuncture that followed, clearly represents the frustration following the initial motivation that failed miserably, leaving little room for hope of retrieving the ambitious scenario.

This instrument shall thus be revoked, so that the mechanisms ruled by other documents, namely the Master Plan (in case it changes this typology into mixed typology), can act towards a positive development of the area. Only then the previously explained strategy can be developed, allowing the expansion of the urban-platform from East to West.

Articulating the Master Plan with non-legally-binding Instruments

The fact that many strategically-oriented documents elaborated by the executive body of the Municipality are not legally-binding has been preventing them from having a more assertive position among the urban management practice. This is the case, for instance, of the Strategic Framework for Valorisation and Planning of the Coastline Public Space, Historical Centre Master Plan¹⁹⁹, which defines the reorganization of public and private space and the main features included in the historical area.

In face of the fundamental principles of programming, these operative instruments shall also be subjected to careful revision so that they can be adapted according to the defined strategy and, therefore, be qualified into key-tools in the actual process of land management.

7. Conclusion

Despite the great political stability Gaia has been enjoying for the last decade, and despite the huge investment made on the riverside and all throughout the coastline, Gaia still suffers from a severe identity crisis, for which it is still referred to as the "dorm-city" or the "crossing city". Our work aims to retrieve some kind of citizenship culture, for which goals are set. These goals, result from a deep and careful analysis of current issues and a close understanding of the programs that, from our point of view, are the most significant in prompting a change in attitude and an urban environment-oriented behaviour.

The tools and instruments supporting land planning are obsolete, inadequate or disconnected from reality. Although not fully under the scope of our work, we cannot avoid stressing the fact that endeavouring a thorough policy reformulation is not a choice – it is an inevitable action. This reformulation must "armour" these instruments against potentially deviational artifices, as much as it must provide them with a character compliant with the present reality.

Otherwise, there is a growing risk that these instruments will keep on addressing poorly-identified issues, often far away from reality, that end up translating into grave consequences, not only socially and economically, but also in terms of quality of the urban environment.

It is therefore crucial that the overall attitude towards planning instruments is changed. Instead of playing a merely regulatory role, they shall play, above all, a strategic role, articulating different agents and needs, scattered around throughout the several patterns of settlement, suffering from fragmentation.

Similarly, there shall be a strong effort in creating inter-municipal synergies, in order to open the possibility of acting at a regional *Metapolic* level, and thus improving regional performance in face of the fast paced evolvement brought by new technologies and procedural speed development.

¹⁹⁹ *Enquadramento Estratégico para a Valorização e Reordenamento do Espaço Público do Litoral. Masterplan do Centro Histórico*

Land Planning is a complex subject, crucial to a convenient sustainable development. Only when its value and importance are acknowledged will it be possible to establish a multifaceted and competent expert class that will take Land Planning further so that its potentialities can be fully explored.

Only then will Land Planning be able to be recognized for what it really is: a powerful tool, capable of stirring and empowering regions, placing them at front on the race for prosperity and competitiveness.

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