

Sustainable Development of Lisbon – An Essay in Territorial Medicine

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Abstract

The aim of this paper is to propose a consistent set of ideas that promote the sustainable development of both people and places within a city, exemplifying with the governance of Lisbon.

It illustrates the need for a systemic paradigm concerning the sustainable development of people and places and experimenting with the practice of *territorial medicine*—an approach grounded in regional science.

The systemic approach makes it possible to understand the mechanisms that foster the goals of sustainable development, by revealing the factors that municipal government can influence: the selective investment in gradually improving adapted spaces, and the careful management of institutions. This assumes that the environment, the economy, society, and well-being cannot be directly and effectively manipulated by the municipality or the state.

Applying the methodological approach to Lisbon the paper argues that the city's greatest problem lies in the poor diagnosis and prognosis carried out by institutions and regulation, that blaming tourism, immigration, the airport, or the port are the main problems of the city. This perspective on the disturbances created by the existing activities leads to the failure to attract investment, weak economic performance, and generates poverty. The city's problems also stem from misguided public policies, often justified by partial and non-integrated disciplinary visions.

The paper argues for the financial viability of designing a competitive and sustainable city—one that values its unique airport and port, locates urban activities where they are most suitable, makes citizens accountable for the balance between the taxes they pay and the public goods and services they receive, attracts investors to basic industries, integrates immigrants and tourists, and provides residents, workers, and families with the means to create culture, well-being, and sustainable development. The paper concludes with a shift in the focus of research, from disciplinary questions to place-based research questions.

1. - A Systemic Paradigm for the Sustainability of People and Places

(Um paradigma sistémico sobre a sustentabilidade das pessoas e dos sítios)

The proposal for a systemic paradigm regarding the sustainability of people and places calls for a revision of four misconceptions widely assumed by common sense, amplified by the media—ever hungry for the audience of popular opinion—and echoed by politicians, dependent on those same votes.

The first great error is to confuse *public goods and services* with *goods produced by the State*, failing to see that State services can compete among themselves, and that, ultimately, the provision of public goods may be undertaken by private entities.

In truth, the National Health Service may be delivered by both public and private hospitals competing for State funding based on medical acts performed. Similarly, education may be offered by both public and private schools, financed according to enrollment, as already happens among public universities. Even municipalities compete in attracting productive activities and residents—a healthy form of competition, though its outcomes fall short because property tax (IMI) depends not on the quality of services provided, but on the property's market value.

The fact that public services can be provided in competitive environments has a profound spatial impact: within each area of influence, several service units may coexist and compete, improving quality while reducing costs.

The second error is to believe that restricting construction in suitable areas does not stimulate building in less suitable ones, or that the location of basic activities—such as airports—does not have unintended consequences for metropolitan structure.

When construction is limited in Alto do Restelo, pressure increases in Miraflores. Delays in urban licensing shift demand toward unregulated or marginal areas. Regulations requiring minimum apartment sizes restrict the available living area per resident, encouraging overcrowding or expulsion. The overall size of the city depends on its *basic employment*—export-oriented activity—and when one housing zone is constrained, people relocate according to accessibility to jobs and services.

The third error in municipal urban management is to presume spatial equality—that all urban and developable land should receive equal provision of municipal services, regardless of population density or the property taxes collected nearby. The result: underused lands receive excessive infrastructure, while denser areas suffer from a lack of services and open space. The same misguided notion justifies flat-rate public transport passes, which raise housing prices in the periphery, reinforce inefficient state monopolies, and increase the impact of strikes—since there is only one monopolistic operator.

The fourth error is to treat the 17 Sustainable Development Goals as if they were 17 separate, disciplinary specializations for assessing people or places. They are not. The goals interact. Growth in output, achieved through the proper combination of labor, capital, and location, enhances freedom in the allocation of public and private consumption—and thereby, indirectly, well-being. Moreover, people desire what they lack most; cities strive to address their most deficient dimensions of sustainability rather than improve what is already abundant.

Ultimately, *each place is a subject of development, not merely an object to be developed*—and that is precisely why the healthy functioning of democracy matters.

Summing up:

1. Public goods and services can—and should—be produced by both public and private entities, ideally in competition: competition among schools, hospitals, parishes, and municipalities.
2. Within the limited space of a municipality, collateral effects of housing, licensing, and land-use restrictions must be understood and mitigated.
3. Property tax (IMI) should be linked to the quality and proximity of municipal services, promoting accountability and good governance.
4. Sustainable development must focus on the mechanisms that actually produce results, not on rigidly pursuing symbolic goals.

1.2 - Territorial Medicine from the Perspective of Regional Science

Regional science studies human interaction in space. Cities—and the environments that surround them—are its central object. It is an interdisciplinary field that unites economists, geographers, historians, landscape architects, ecologists, urbanists, transport, energy and sanitation engineers, public health physicians, sociologists, jurists, journalists, and political scientists—all pursuing a common purpose: the sustainable development of people and places.

Beyond this shared aim, they are united by reality itself—the tangible problems that cause human suffering and degrade the land.

Territorial medicine seeks to heal the ailments of places just as medicine heals the ailments of people. The metaphor of “medicine” signals a movement of the human and earth sciences—from the abstraction of knowledge to the effectiveness of wisdom.

In cities, the relevant pathologies are poverty of mobility, degradation of people and places, the impact of economic and social crises, and above all, the correction of policy errors informed by partial, ideologized, or pseudo-scientific knowledge.

Territorial medicine focuses on urgent and emerging issues concerning the spatial interactions of people and places. It employs interdisciplinary, replicable methods and evidence-based approaches to treat “territorial diseases.”

For Lisbon in the coming years, urgent attention must be given to the housing crisis, urban mobility and logistics, quality of life—including public health, safety, and education—the provision of services to the metropolitan area, the nation, and the world, the integration of migrants, the sustainability of tourism and energy, and the accommodation of globally competitive activities.

Territorial medicine seeks to *diagnose* and *treat* territorial disorders by integrating diverse disciplines under shared and practical methodologies—all united by the purpose of curing spatial pathologies.

This book is an *exercise in learning the practice of territorial medicine*.

We begin with a broad yet concise interdisciplinary framework, encompassing environment, regulation, economy, and adapted spaces—each serving as a reference for the integrated objectives of sustainable development, complemented by a multidimensional analysis through the lens of people and places.

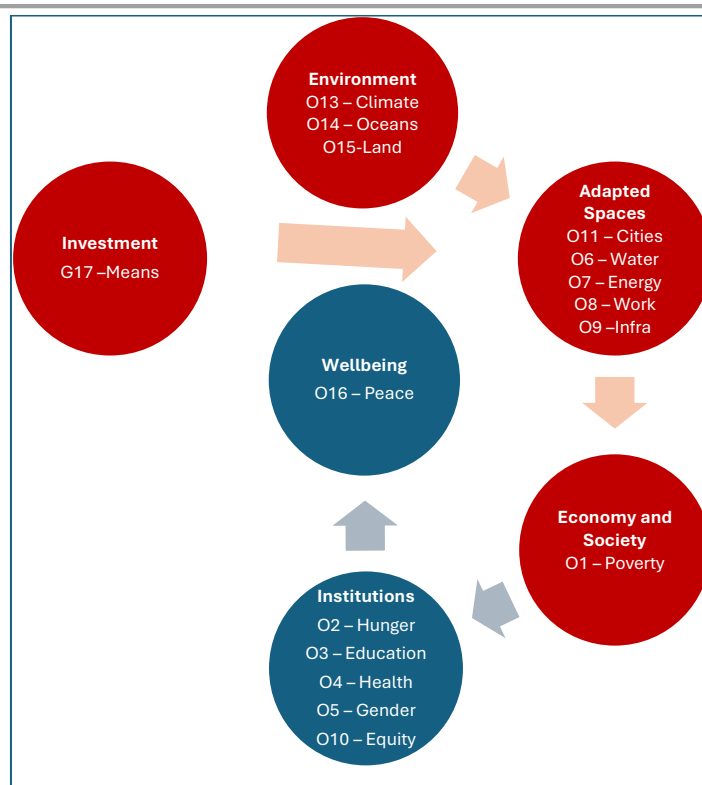


Figure 1 – Conceptual Model of Sustainable Development

The diagram in Figure 1 illustrates a coherent aggregation of the 17 Sustainable Development Goals, embodied in two relatively robust relationships estimated using World Bank data.

The first relationship explains *economic performance* (O1 – End Poverty) as a function of *financial capital* (G17 – Partnerships for the Goals), *natural capital* (O13 – Climate Action; O14 – Life Below Water; O15 – Life on Land), and *human and material capital* (O7 – Affordable and Clean Energy; O8 – Decent Work and Economic Growth; O9 – Industry, Innovation, and Infrastructure; O11 – Sustainable Cities and Communities; O6 – Clean Water and Sanitation).

The second relationship, equally robust, explains *well-being* (O16 – Peace, Justice, and Strong Institutions) as a function of *economic performance* (O1 – End Poverty) and *institutional or social capital* (O2 – Zero Hunger; O3 – Good Health and Well-being; O4 – Quality Education; O5 – Gender Equality; O10 – Reduced Inequalities).

This perspective allows us to move beyond a list of 17 isolated disciplines, understanding instead the mechanisms that truly promote sustainable development—and acting upon the most effective factors.

It also highlights the levers available to municipal government: prioritizing selective investments that gradually improve the built environment, managing institutions with care, and acknowledging that environment, economy, society, and well-being cannot be directly or effectively manipulated by the municipality or by the State.

Chapter 2 – Characterization of Lisbon

(Capítulo 2 – Caraterização de Lisboa)

2.1 - Evolution of the City in Time and Space

Lisbon's vocation has always been competitive with that of the major cities of the Iberian Peninsula—not only because of the global centrality they created, but also due to the political centrality that Lisbon and Madrid accumulated in Portugal and Spain, respectively.

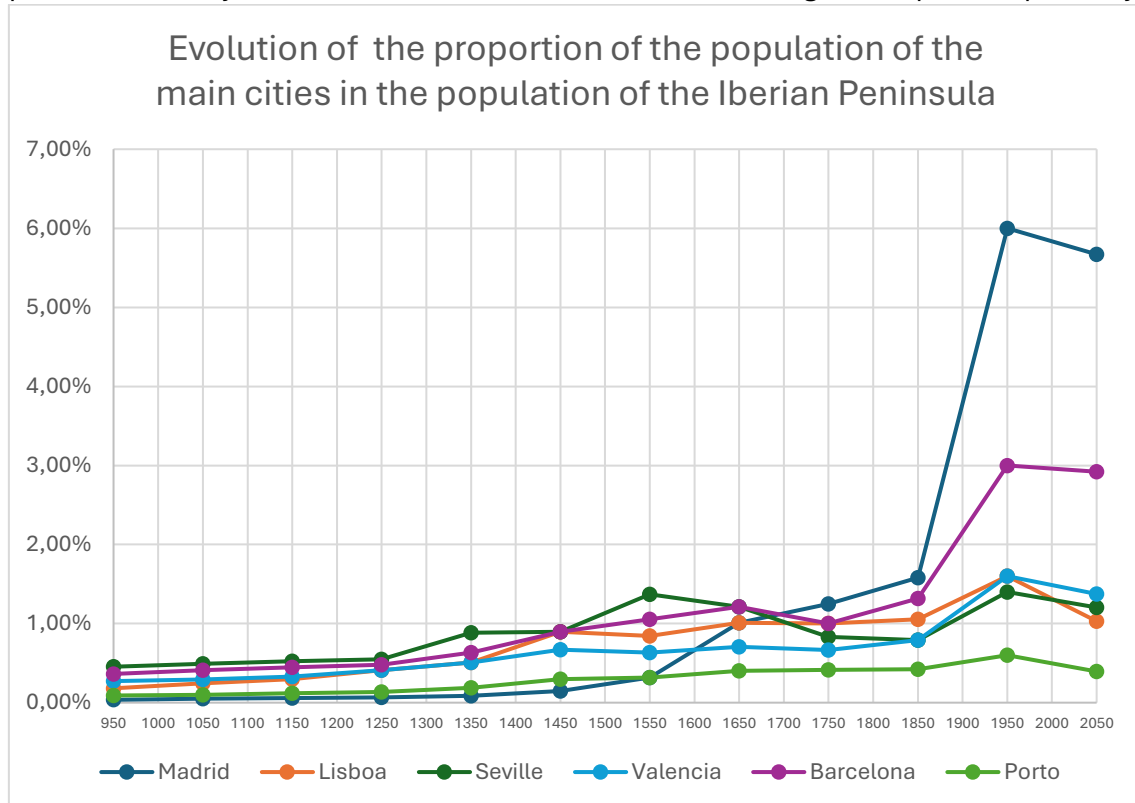


Figure 2 – Evolution of the Population Share of Major Iberian Cities

It is worth noting:

- i) the urbanization process of the 19th and 20th centuries, which increased the weight of all these cities in the total population.
- ii) the phenomenon of urban expansion during the 21st century, marked by a population decline in the old urban cores.
- iii) the remarkable rise of Madrid since the 15th century, surpassing Lisbon and Barcelona by the 17th.
- iv) Lisbon's loss of prominence during the Iberian Union under Spanish rule, to the benefit of Madrid and Seville.
- v) And, the further loss of importance following the 1974–75 Revolution in Portugal, when Lisbon's demographic weight decreased relative to Valencia and Seville.

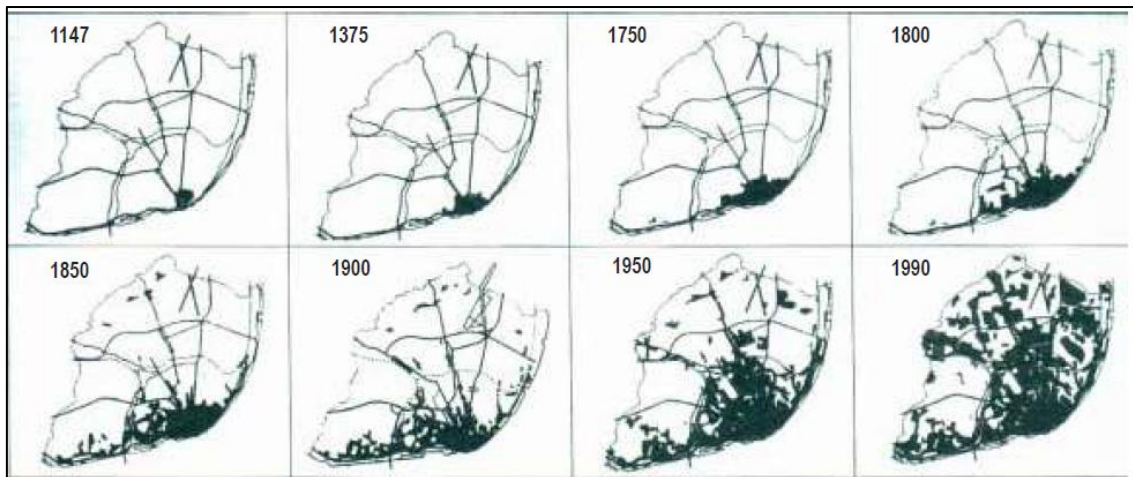


Figure 3 – Evolution of Lisbon’s Urban Footprint¹

During the 20th century, Lisbon’s growth expanded the urban fabric toward the interior plateau of the *Avenidas Novas* district and, by the end of the century, toward the parishes of Benfica, Carnide, Lumiar, and Olivais—encircling the green zone of Monsanto to the west and the airport area to the east, while avoiding the deep valleys of the city’s eastern zones and the Alcântara valley.

The Centre for Studies and Opinion Polling of the Portuguese Catholic University reports on the evolution of Lisbon’s indicators for the Sustainable Development Goals (SDGs). Here, those indicators are structured according to the conceptual model presented in Figure 1, allowing us to interpret Lisbon’s performance spatially across the city.

2.2 - Environmental Characterization

Objective	Indicator	2015	2016	2017	2018	2019	2020	2021	2022
O13 – Climate Action	Greenhouse gas emissions per capita	3.2	3.3	3.2	—	—	—	—	—
O14 – Life Below Water	% of water bodies with good environmental quality	20.0	—	0.0	—	0.0	—	—	—
O15 – Life on Land	Variation in forest area (%)	—	—	—	—	—	-1.9	—	-4.7

Table 1 – Environmental Indicators of Sustainable Development

Except for the nation’s success in reducing greenhouse gas emissions per capita, Lisbon’s other environmental indicators show deterioration—poorer water quality and a gradual reduction in forested areas.

¹ Salgueiro, T. Barata, *Periferia e Centralidades*, Lisboa-Oeiras, 2001.

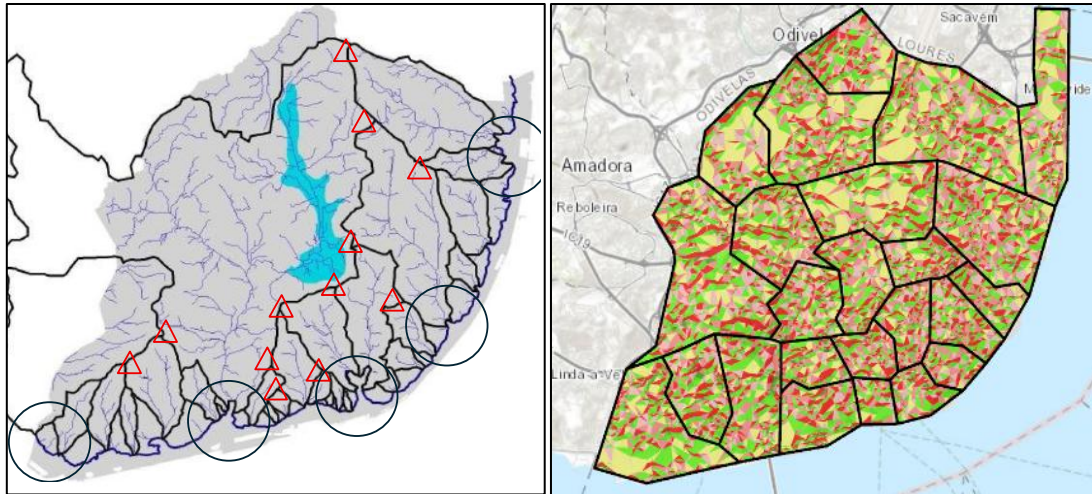


Figure 4 – Hydrographic Basins, Distribution and Meeting Centres (4a), and Urban Suitability Maps (4b) ^{2,3}.

Spatial environmental data reveal Lisbon’s natural circulation patterns of water, as defined by its hydrographic basins, and indicate centralities of encounter along the Tagus River—at Oriente, Chelas, Baixa, Alcântara, and Belém. At the borders between basins, the most relevant distribution centers emerge near the airport (north) and Monsanto (east). Within the built urban grid, the main distribution centers are Campo Pequeno, Alto de São João, Saldanha, Alto de Campolide, Alto das Amoreiras, Príncipe Real, and Estrela.

The parishes with the best *urban suitability indices* are Arroios, Areeiro, and São Vicente, while those with greater diversity of environmental exposure are Santo António, Campo de Ourique, Campolide, and Areeiro. Conversely, Santa Maria Maior and Avenidas Novas rank lowest in urban suitability.

Lisbon exhibits remarkable diversity of urban aptitudes in close proximity—unlike the relative flatness typical of most European cities. However, the city’s expansion toward Avenidas Novas, Alvalade, Lumiar, Carnide, São Domingos de Benfica, Benfica, and Parque das Nações have diminished part of this environmental richness.

Improvement in environmental sustainability depends on fostering **proximity between people and environmental amenities**. When residents experience the forested areas firsthand, they value and preserve them. Replacing the green mass of Monsanto with numerous smaller parks, without adapting the Alcântara Basin appropriately, could erode the city’s forest cover; but integrating these spaces with accessible green corridors would instead reinforce it. Similarly, bringing people closer to water bodies encourages collective interest in water quality—developing riverfront zones along the Tagus promotes civic awareness of the river’s environmental health, just as expanding small lakes (such as in Campo Grande Park) fosters concern for the city’s aquifers.

Chapter 3 – Diagnosis

3.1 - Problems

The lack of well-being among Lisbon’s people and places stems primarily from **regulatory failures** in housing, health, and education, coupled with the inability to design and implement measures capable of attracting *basic economic activities* that seek the city as a base. These issues manifest over the long term in the **declining share of Lisbon’s population** (see Figure 1) and in the **disorder of adapted spaces**, evidenced by the city’s expansion into areas of low natural centrality and poor bioclimatic comfort (see Figure 2).

² Dentinho, A. P. (1962), *Aptidão Urbana de Acordo com a Exposição*, Lisboa, Binário, 1962.

³ Dentinho, T. and Suarez, J. (2024), *Urban Suitability according to Exposure for Naples and Lisbon*, Mimeo.

Such trends are driven by **abuse of power** and **inconsistent territorial planning**, high taxation with limited public services, and regulatory constraints that discourage investment, labor, tourism, and economic activity (see Figure 12).

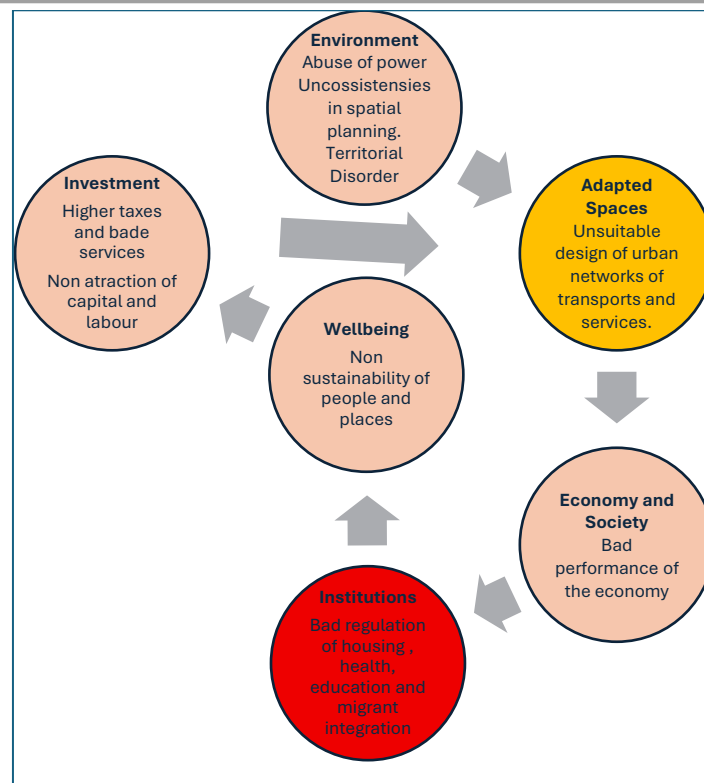


Figure 12 – Diagnosis of Lisbon’s Current Situation

In essence, Lisbon’s greatest problem lies in the **poor diagnosis and prognosis** made by institutions and regulatory systems.

Blaming tourism, immigration, the airport, or the port diverts attention from the true structural issues—leading to disinvestment, weak economic performance, and persistent poverty.

The city’s economic vitality depends on **external factors** that can only be enhanced or mitigated through Lisbon’s relationships with the metropolitan area, with Portugal as a whole, and with the world. Its identity, independence, and freedom arise from this **vocation for service and connection**—embracing sustainable integration, productive investment, and the responsible reception of both tourists and immigrants.

3.2 - Spatial and Regulatory Disordering

The **disorder of adapted spaces**—which encompasses environmental, material, human, social, cultural, and financial dimensions—results from misused authority and flawed planning decisions.

Examples include:

- imposing unnecessary traffic restrictions,
- promoting projects of doubtful viability (such as relocating Lisbon’s airport far from the city, or beginning a high-speed rail line from Porto without a clear southern destination), and
- designating green zones in unsuitable locations, as in the case of Monsanto Park, whose expansion displaced the city toward less suitable valleys such as Avenidas Novas and Benfica.

Disorder also arises from **inconsistent regulatory instruments** that shape land occupation.

The creation of a single, flat-rate public transport pass (*passe social único*)—while politically popular—has increased **speculation and housing prices in the periphery**, fueling urban sprawl and reducing competitiveness⁴.

Moreover, **formal and informal corruption** thrives under such inefficiency—fed by bureaucratic delays in licensing and property transfer.

A particularly severe inconsistency lies in the **property tax (IMI)** system: it is not linked to the level or quality of municipal services in each neighbourhood.

This disconnect **encourages sprawl**, raises urban operating costs, and diminishes the benefits of agglomeration economies.

Equally problematic is the lack of measures to curb **property speculation**—for example, by applying higher IMI rates to owners who leave buildings vacant (thus underusing public infrastructure) or to those who overcrowd housing (thereby overburdening local services and amenities).

Finally, spatial disorder is reinforced by **inadequate infrastructure design** in transport, communication, energy, water supply, and waste recycling.

These inefficiencies manifest in housing shortages, unequal job accessibility, territorial degradation, and costly, dysfunctional urban expansion.

The **2021 Municipal Master Plan**—paradoxically designed with the hope that “everything remains the same”—epitomizes this problem:

- Economic activity is zoned into marginal locations, where such activities are expected to revive the urban economy despite lacking accessibility or synergy.
- The riverfront remains underconnected and overly dependent on tourism.
- Low densities persist in the city’s most suitable areas, forcing expansion into less suitable terrain and pushing residents into peripheral municipalities marked by **mobility poverty**.

3.3 - Structural Policy Errors

Lisbon’s most persistent problems stem from **policy failures** largely justified by *partial, discipline-bound approaches* that ignore systemic interrelations.

1. Urban Transport Errors

Urban network design disregards water circulation and concentrates centrality on the plateau areas of Avenidas Novas, Alvalade, and Benfica, as well as the valley corridors of Avenida da Liberdade, Almirante Reis, and Alcântara—zones increasingly exposed to flooding due to underground construction.

2. Urbanism and Landscape Errors

Restrictive urbanism limits occupation in riverside parishes with high natural aptitude, pushing expansion toward less suitable plateau areas and peripheral municipalities. The current *Urban Building Regulation* encourages overcrowding in central dwellings and indirectly stimulates informal housing.

3. Economic and Sociological Errors

Urban policy fails to recognize the spatial requirements of employment and housing.

High property taxes, capital gains taxes, and the flat-rate transport pass all worsen competitiveness, housing scarcity, and social exclusion.

⁴ Dentinho, T. P. (2023), «The impact of spatially egalitarian functional urban areas: The case of Lisbon Metropolitan Region», in Fusco, Girard L.; Kourtiti, K. e Nijkamp, P. (eds.), *The Future of Liveable Cities. Footprints of Regional Science*, Springer, Cham., pp.. 151-170, https://doi.org/10.1007/978-3-031-37466-1_8

The policy of social housing construction—often remote from urban centers and outside Lisbon’s jurisdiction—has deepened segregation and poverty.

4. **Regulatory Errors**

Overly prescriptive regulations generate bureaucracy and corruption, preferring overcrowding to reduced minimum housing dimensions, and uniformity over diversity.

Such rules **destroy Lisbon’s environmental richness**—standardizing apartments, buildings, and entire neighborhoods that once flourished through variety and adaptation.

5. **Neglect of Empirical Learning**

Policymaking rarely draws lessons from **existing neighborhoods that work well**, perpetuating instead the replication of flawed models.

3.4 - Lessons from Lisbon’s History

Lisbon’s urban history provides ample opportunity for learning—both from what has succeeded sustainably and from what has failed.

The **Strategic Charter for Lisbon 2010–2024**, though well-crafted within disciplinary frameworks, failed to meet its goals precisely because **disciplinary tools alone** could not resolve systemic problems.

Housing policy, for instance, cannot rely solely on state-built projects or subsidies that inflate prices.

Instead, it should:

- tax underuse and overuse of municipal services,
- reduce real estate transaction taxes,
- abolish the flat-rate transport pass, and
- create a **municipal real estate market** that efficiently matches supply and demand.

Urban diversity requires revising the **Urban Building Regulation** to allow higher densities *with quality*, while creating proximate public spaces—churches, squares, fountains, cafés, and neighborhood gardens.

Accessibility to public goods cannot be achieved through good intentions but through **tax reform**—linking lower property tax (IMI) to areas underserved by public amenities, thereby encouraging balanced urban development.

3.5 - The Housing Question

The decline in air travel prices has fueled **tourism growth** and increased **housing demand**, particularly in attractive cities.

However, the **malfunctioning of the real estate market**, high taxes on property transactions, uncertainty from inconsistent housing and transport policies, speculative expectations of ever-rising prices, and construction-sector inefficiencies have prevented adequate housing supply.

Both the **construction industry** and the **tourism sector** generate large volumes of low-wage employment, limiting the ability of many workers to afford formal housing and driving pressure toward **informal settlements** near jobs and services.

What is to be done?

1. **Reduce market uncertainty** – End harmful housing and transport policies. Eliminate the flat-rate metropolitan transport pass, which inflates peripheral housing prices without expanding central supply.
2. **Reform property taxation** – Adjust IMI to reflect the *cost of municipal services* rather than market value, thus discouraging sprawl. Apply IMI to idle developable land, and abolish property transaction taxes.

3. **Create municipal housing markets** – Establish transparent, streamlined public real estate exchanges to reduce transaction costs and expedite licensing and registration processes.
4. **Address informal settlements** – Urgently respond to the resurgence of shantytowns by improving infrastructure, defining property rights, and ensuring fiscal responsibility. In the short term, even modest self-built housing can evolve into dignified neighborhoods when supported by social and institutional integration—churches, sports clubs, cafés, and shops often follow naturally.

These *bottom-up urban dynamics* tend to produce healthier, more cohesive communities than top-down, state-built social housing projects.

Chapter 4 – Strategies and Objectives

Alternative Strategies

All political institutions recognize the truth of the facts, although they may present different reasons and assign different responsibilities for them, and consequently propose alternative strategies for the good of the people and places of Portugal. It is up to the people and the places to choose—and to be accountable for—the consequences of their choices. Ideological institutions assume that the State or the municipality, as an authority, must produce all public goods and services and a large part of private goods, advocating for a greater role of the State or municipality in the economy, usually with a corresponding benefit in terms of power for those they trust. Moreover, they believe that, in urban terms, the best solution lies in strong regulation of land use for all activities, as is evident in the zoning maps of the municipal master plan (Figure 8). However, the results have clearly not been brilliant: the collectivization that followed the revolution fifty years ago and the isolation prior to European integration did not generate development; redistribution without production during the ideological governments of the early 21st century led to stagnation; and the debt-based economy promoted by both ideological and pragmatic administrations resulted in the disaster we later had to pay for—with higher taxes, declining public sector wages, and a reduction in public investment during the ideological years. In urban terms, extreme regulation of land use has restricted the city's development and fostered both informal corruption (when done against the law) and formal corruption (when permitted by corrupt laws).

Figure 13a summarizes the strategy of ideological institutions—those convinced that greater municipal intervention in construction, housing, health, and education automatically produces greater well-being, and that a sustainable economy can be achieved solely through increased regulation and control of land use, without attending to the real needs of people and places. Naturally, such an approach promotes corruption as the only way out of the deadlock created by abuse of power. Consequently, the city's economy loses ground to competing cities, poverty increases, urban spaces degrade, the tax burden rises, and both investment and workers are driven away.

Pragmatic institutions tend to tailor their campaigns and policies to the immediacy of each electoral cycle. They usually propose short-term management measures and struggle to implement structural policies. They do not promote competition between schools or hospitals for fear of antagonizing teachers and doctors; they do not reduce public debt or the size of the State because they depend on client networks; they favor infrastructure and regulatory schemes that enable formal corruption through land transfers; and they avoid confronting new challenges—such as immigration or threats to globalization and peace—preferring to transfer those responsibilities to Brussels. In Lisbon's urban management, it was clear that pragmatic administrations led to low-value developments in zones reserved for airport expansion, as well as to the illogical expansion of road and metro networks that failed to connect the city's main natural centers of meeting and distribution. It is incomprehensible that the metro line beginning at the airport was not extended directly to Campo Pequeno (with a railway connection), continuing along the surface line to Alcântara

(Figure 2a) and northward to Loures. This would not conflict with the line connecting the airport to Oriente and on to Campo Grande, linking Terminals 1 and 2, and potentially allowing for a Terminal 3 west of the runway.

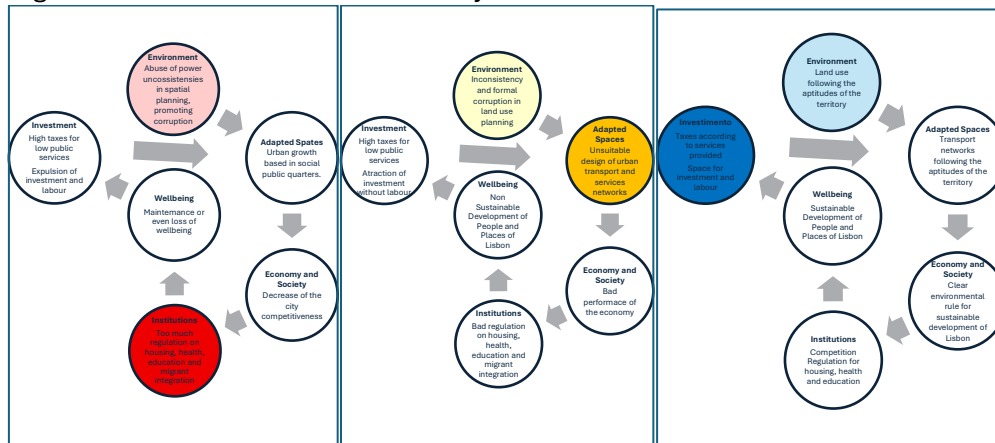


Figure 13 – Ideological (13a), Pragmatic (13b), and Sustainable (13c) Strategies.

Figure 13b summarizes the pragmatic institutions' strategy, which believes well-being can be achieved through construction and "big projects": moving the airport, building a high-speed train to nowhere, and endless construction without sense or destination—overcoming, within their term of power, the absurd limitations imposed by their ideological predecessors.

The strategy for sustainable development of the city of Lisbon involves, on the one hand, promoting the functionality of the environment and investment, and on the other, making good use of mediation between ideological and pragmatic interests to rationally approve small but significant regulatory reforms in the provision of public services and in the network of facilities and infrastructures.

Objectives

The proposal set forth in this text aims at **sustainable development for the people and places of Lisbon**, measurable through the promotion of **well-being (Goal O16)**. To achieve this goal, two complementary and logically sequential objectives must be pursued:

1. the creation of **proximity spaces for service provision**, and
2. the **eradication of poverty**.

This mechanism is illustrated in **Figure 14**.

– On one hand, well-being improves through the creation of **proximity spaces** that allow public services and essential city activities—health (O3), education (O4), and recreation (O2)—to operate safely (O5) and equitably (O10).
 – On the other hand, poverty eradication in proximity is achieved through the provision of **energy (O7), water and sanitation (O6), decent and affordable housing** according to site aptitudes (O11), **decent work and economic growth (O8)**, and **industrial, innovation, and infrastructure development (O9)**.

Policy instruments focus on **investment**, with taxes aligned to services provided (O17), and **spatial planning** aligned with the natural aptitudes of the territory (O13, O14, O15), complemented by incremental reforms in the regulation of public service provision (O2, O3, O4, O5, O10) and infrastructure networks suited to each site's potential (O7, O8, O9, O11). All of this is directed toward **eradicating poverty (O1)** and **promoting well-being (O16)**.

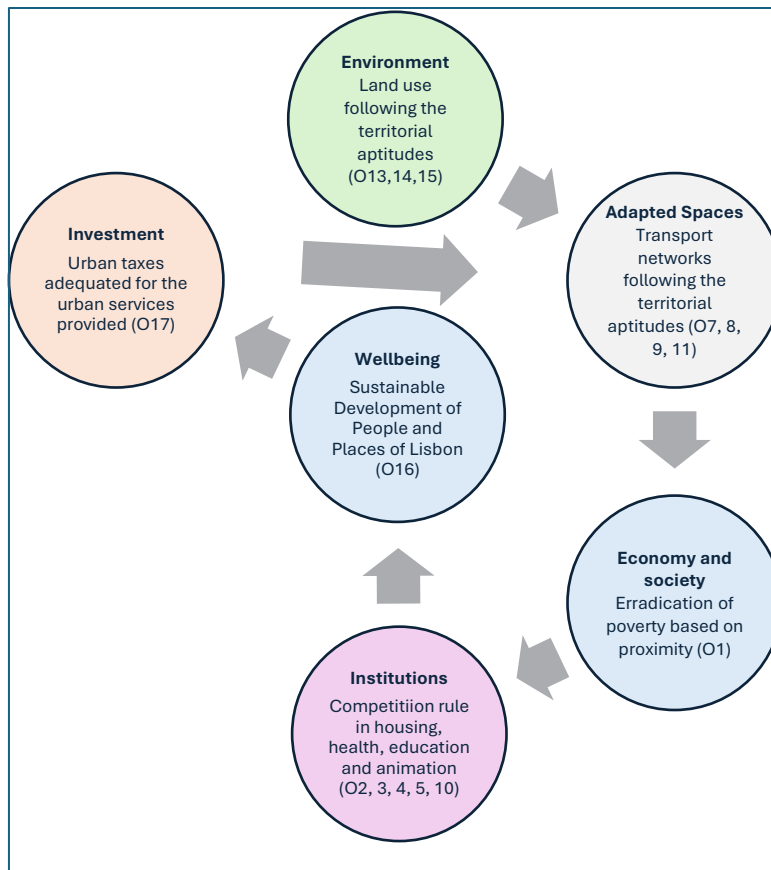


Figure 14 – Sustainable Development for the People and Places of Lisbon.
Linking Policies to the Sustainable Development Goals and Indicators
Table 5 presents the proposed **objectives, policies, and indicators** for sustainable development in Lisbon.

Starting with the instruments: the proposal advocates for **taxes aligned with services rendered**, the promotion of a **“20-minute city”** model, **reducing mobility poverty, upgrading riverfront areas**, and ensuring **continuous green corridors** by converting unused forest areas into accessible green zones—green spaces for people and water circulation, not just roadside decoration. Additionally, it calls for an increase in **electric motorcycle circulation** and the installation of **charging sockets** in parking areas, the creation of **spaces suitable for basic service and industrial activities** while preserving residential uses, the establishment of **squares, gardens, fountains, and courtyards within walking distance**, and fostering **competition** in health, education, green spaces, and recreation through proximity-based design.

This systemic approach envisions **clear, measurable targets for 2030**:

- With balanced taxation and spending, **municipal debt per resident** will fall from **€500 to €0**.
- With the “20-minute city” initiative, **greenhouse gas emissions per capita** will drop from **3.2 to 3.0**.
- The **rehabilitation of waterfronts** at Beato and Alcântara will raise the **share of water bodies in good environmental condition** from **0% to 20%**.
- The creation of **usable green corridors** will halt **forest area loss**, moving from **–5% to 0%**.

It continues with quantitative targets for each sustainable development goal, summarized in Table 5.

Table 5 – Objectives, Policies, and Indicators for Sustainable Development in Lisbon

Axis	Goal (SDG)	Policy Orientation	Indicator	2025	2030
Investment	O17 – Partnerships for the Implementation of the SDGs	Taxes aligned with services provided and creation of a Municipal and Migration Investment Bank	Municipal debt per inhabitant (€ per resident)	€500	€0
Environment	O13 – Climate Action	Promotion of the 20-minute city	Greenhouse gas emissions per capita (tons CO ₂ e)	3.2	3.0
	O14 – Life Below Water	Rehabilitation of riverfront zones	Percentage of water bodies with good environmental quality (%)	0.0	20.0
	O15 – Life on Land	Continuous green corridors: converting unused forest into accessible green zones	Variation in forest area (%)	-5.0	0.0
Adapted Spaces	O7 – Affordable and Clean Energy	Increased use of electric motorcycles and charging facilities	Percentage of buildings with energy certification in classes A, B, C (%)	66.0	75.0
	O8 – Decent Work and Economic Growth	Creation of spaces suitable for basic service-oriented activities	Average monthly income (€)	1,800	2,500
	O9 – Industry, Innovation and Infrastructure	Spaces suited for basic industrial activities	Gross value added per industrial worker (€ thousand)	105	200
	O11 – Sustainable Cities and Communities	Spaces suitable for residential activities	Share of non-classical family dwellings (%)	0.2	0.1
	O6 – Clean Water and Sanitation	Improvement of aquifer quality	Safe water indicator (%)	99.0	99.9
Economy	O1 – No Poverty	Space for investment and workforce in accessible locations	Share of social income support beneficiaries per 1,000 working-age residents (‰)	40.0	20.0
Institutions and Regulation	O2 – Zero Hunger	Creation of local squares, gardens, fountains, and courtyards	Prevalence of overweight among children aged 6–8 years (%)	30.2	20.0
	O3 – Good Health and Well-being	Proximity spaces for competitive health services	Share of key health professionals by specialty (%)	17.6	20.0
	O4 – Quality Education	Proximity spaces for competitive education services	Share of adult population enrolled in higher education (%)	9.1	12.0
	O5 – Gender Equality	Total safety in transport and improved accessibility	Share of women in leadership positions (%)	42.0	50.0
	O10 – Reduced Inequalities	Reduction of mobility poverty	Gini coefficient of declared gross income (post-income tax)	48.5	47.5
Well-being	O16 – Peace, Justice and Strong Institutions	Space for clubs, schools, clinics, and churches within walking distance	Incidence rate of children and minors under protection (%)	5.1	3.5

Summary

The dynamics of **electric mobility** and **urban evolution** will increase the share of **energy-efficient buildings** (A–C classes) from 66% to 75%.

The creation of spaces for **basic economic activities** will raise **average monthly income** from €1,800 (2025) to €2,500 (2030).

The attraction of **appropriate industrial activities** will increase the **gross value added per industrial worker** from €105,000 to €200,000.

The creation of **residential spaces** will reduce the proportion of **non-classical dwellings** from 20% to 10%.

Improvements in **aquifer quality** will ensure safer water supply.

The **eradication of poverty** will cut the share of **social income support beneficiaries** from 40‰ to 20‰.

Improvements in **well-being** will reduce the **percentage of children under protection** from 5% to 3.5%.

An increase in **health professionals** (17.6% → 20%) will mark progress in healthcare; **higher education enrollment** (9.1% → 12%) will signal advances in education; **urban safety and accessibility** will increase **female leadership representation** (42% → 50%)

And **income inequality** (Gini 48.5 → 47.5) will lessen through reduced mobility poverty.

Finally, creating **proximity spaces**—where residents can access schools, clinics, clubs, and churches within walking distance—will strengthen community cohesion and quality of life.

Chapter 5 – Structural Projects

5.1 - A City for 750,000 Inhabitants

The main structural project for Lisbon lies in its **unique geographic location**, embodied in its **millennial history**, which enhances its development and sustainability while defining its **vocation to serve** the metropolitan area, the country, and the world. Any neglect or distraction from this vocation carries serious and cumulative consequences for the city's mission — as history demonstrates — and limits the hope of a future that depends on what we do in the present, in a truly human reversal of time.

Since the foundation of Portugal, we have understood the significance of **King Afonso Henriques's conquest of Lisbon** from the Moors and Crusaders as essential to the nation's creation; we have witnessed the city's **resistance to Spanish and Philippine domination** under **King João I**, all justified by its enduring role in serving the world. We have also learned from Lisbon's **decline in importance relative to other European cities**, caused by denying that same vocation through acts of exclusion — the **expulsion of Jews and the Order of Christ in the 16th century**, the **eradication of the Jesuits in the 18th century**, of **religious orders in the 19th century**, and of **many of the best people** in the 20th and 21st centuries.

Lisbon is **not fulfilling its structural mission** — to serve the metropolitan area, Portugal, and the world — and this failure began when it started **driving people away**; and those who leave, or do not stay, are usually **the best**.

The problem is **not** immigrants or tourists — the problem is believing that they are a problem, rather than **an indicator of potential and capacity**.

The proposal is that, by **2030**, the number of **basic jobs** (those oriented toward external markets) in Lisbon should **increase from 75,000 to 100,000**, resulting in a city with **750,000 residents**.

Interacting with the metropolitan area, whose population would grow from **2.75 to 3.75 million**, and with **Portugal** expanding from **11 to 15 million inhabitants**, this process of **investment attraction and migrant integration** will strengthen the interaction between the city, the country, and the world — fulfilling Lisbon's historic mission.

It is essential to identify **spaces for these new jobs** within Lisbon's **underdeveloped urban centers**, such as the **meeting centers of Beato, Alcântara, and Belém**, making use of their

port and leisure potential, and the distribution centers of the Airport, Alto de Campolide, Alto das Amoreiras, Estrela, and Monsanto. These must be reinforced by better accessibility through metro and rail networks, especially through smoother connections between Alcântara Terra and the Cascais Line, and between the airport and the Areeiro train station, with possible extensions to Loures and to the high-speed rail line (TGV) to Porto.

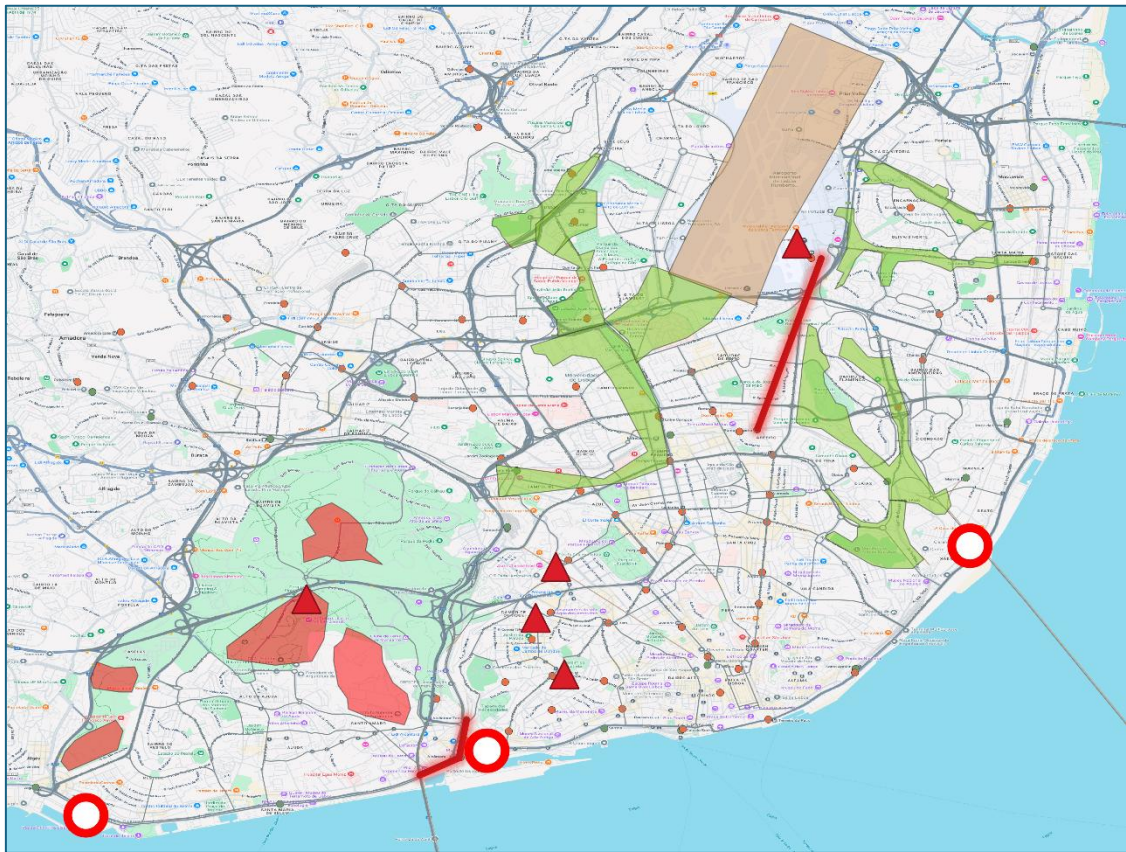


Figure 15 – Structural Modifications Plan for the City of Lisbon

- ● **Red:** New University City in Monsanto
- ● **Green:** New urban green areas
- ○ **Circles:** New riverfront centers
- ▲ **Triangles:** New distribution centers
- — **Red lines:** Railway connections
- ● **Beige area:** Expanded airport zone

(Figure 15 – Plan of Structural Changes for the City of Lisbon)

It is equally important to find **residential areas** in the city's **most suitable yet less dense zones**, such as **Belém, Ajuda, and Alcântara**, served by **extensions of the metro network**. Meanwhile, **green areas** should be expanded in **Avenidas Novas, Alvalade, Lumiar, Marvila, and Olivais**.

Relocating part of the **University Campus** and the **Júlio de Matos Hospital** to **Monsanto** would free valuable urban land for **new accessible green spaces** while allowing **higher noise tolerance** in that area — thus **reducing the environmental impact of Lisbon Airport** and supporting its **expansion**.

The creation of a **new green park** on the former **Feira Popular** grounds, together with the relocation of the **Bank of Portugal and other banks** to the **Alto da Ajuda**, would result in **valuable, usable green areas** instead of **empty, ornamental spaces**.

5.2 - A 20-Minute City

The ongoing global and local urbanization processes exert pressure for urban expansion into areas where **regulation is weaker** and **sites more physically suitable**. When municipalities fail to keep pace with this **rising demand for urban space**, expansion occurs **without adequate structure**, lacking **competitive alternatives to private car use**, **proper street widths and connections**, **sidewalks**, **parking spaces**, and **pedestrian access to employment, commerce, services, and community facilities**.

This situation leads to **serious and growing problems**:

- accidents caused by cars parked on narrow streets,
- pedestrian risks due to lack of sidewalks,
- traffic congestion during peak hours,
- and the **social exclusion** of young people, the elderly, and the poor who **cannot afford or drive private vehicles** and thus lose access to jobs, schools, and urban amenities.

We are still in time to **design a millennium-scale urban structure** that ensures **Lisbon's long-term competitiveness and sustainability**.

We can begin with the concept of the **“20-minute city”**, whose **global objective** is to **reduce CO₂ emissions** and whose **local objective** is to **improve the quality of life** through:

1. the creation of **public and community goods and services within walking distance**, and
2. the improvement of **public accessibility** to services that, due to their scale, cannot be close to everyone.

Given the difficulty of implementing effective **top-down solutions**, since in dense spaces the **conflicts between public, private, and community interests** are hard to reconcile, a **bottom-up, participatory solution** is proposed. This would involve **neighborhood, parish, or multi-parish initiatives** applying for **municipal, national, and European investment funds**, complementing **private and community investment**.

What differentiates this initiative is its **focus on creating local public and community services**, including **pedestrian accessibility**, **public transport connections**, **accident risk reduction**, and **parking management**.

The goal is to **improve mobility within and between neighborhoods with greater mobility poverty** (see Figure 7), ensuring that residents can **easily access jobs and essential services**.

This includes **complementing transport systems with strategically located employment and services**, creating **inclusive, interconnected urban spaces** where people can fully engage with their communities.

Each neighborhood project should promote a **transition toward sustainable urban mobility**, through an approach that combines **institutional, fiscal, infrastructural, regulatory, and cultural strategies** — centered on people, inclusivity, and gradual, self-financed, participatory implementation — aimed at **reducing mobility poverty** and **supporting long-term sustainable development**.

Specific measures include:

- **removing tolls for electric motorcycles** on highways;
- **providing public charging sockets** in parking areas for these vehicles;
- **integrating ride-sharing (Uber) and taxi licensing**, establishing a **municipal license exchange market**, where the city can buy or sell licenses when market prices diverge significantly from indicative values;
- and **allowing collective taxis to compete with public bus services (Carris)**.

5.3 - Expansion of Lisbon Airport (Portela)

The **Independent Technical Commission (CTI)** tasked with evaluating strategic options for expanding the **Lisbon region's airport capacity** implicitly indicated that the **best solution** is likely the **expansion of the existing Portela Airport**.

Annex VII of the Commission's report contains the **cost-benefit analysis** of various alternatives.

This analysis is crucial, as **cost-benefit evaluation** is the only sound basis for **major investment decisions** — even though, in a country accustomed to **public debt, multi-criteria or cost-effectiveness methods** may serve initially to identify feasible options, assuming all are possible.

The CTI's cost-benefit study considered two scenarios:
– **with** expansion of existing transport networks (including the TGV high-speed train), and
– **without** such expansion.

Without network expansion, **seven alternatives** were analyzed against the **baseline scenario (Portela + Montijo)**.

All yielded **negative net present values (NPV)** — meaning all were **worse** than the Portela + Montijo option:

1. Montijo (–€3,404M)
2. Portela & Alcochete (–€8,876M)
3. Santarém (–€8,910M)
4. Portela & Santarém (–€8,959M)
5. Portela & Vendas Novas (–€9,298M)
6. Alcochete (–€10,274M)
7. Vendas Novas (–€11,595M)

With expansion of the transport networks, **the same seven alternatives** were again **worse** than the baseline (Portela + Montijo):

1. Montijo (–€2,772M)
2. Portela & Alcochete (–€7,956M)
3. Santarém (–€9,887M)
4. Portela & Santarém (–€9,895M)
5. Portela & Vendas Novas (–€8,472M)
6. Alcochete (–€7,949M)
7. Vendas Novas (–€9,367M)

In summary, **none of the alternatives outperform Portela + Montijo**, which is why the **Independent Technical Commission** recommended it, at least **in the medium term**.

However, since **none of the studied options** are superior to **Portela + Montijo**, one must ask whether there might be an **even better alternative** — one **not considered** among those seven:

why not **expand Portela** itself by **clearing the area long reserved for a second runway**?

In reality, this would be the **most efficient solution** for international travelers, as it would **avoid additional ground transport costs** to reach central Lisbon.

Continuation of 3) Expansion of Lisbon Airport (Portela)

Since the **Portela + Montijo** scenario is the **baseline** (with a comparative net present value of zero), and given that the **Montijo-only** alternative has a **negative value of –€2,772 million**, it would suffice for the **cost of clearing and adapting** the area reserved for the **second runway at Portela** to be **less than €2.7 billion** for this **expansion-only solution** to become **economically superior** to all others.

In addition, this option would **preserve the existing investment** in airport infrastructure, **maximize the current accessibility advantages** (metro, train, and road), and **minimize environmental impacts** by avoiding the need for new large-scale land conversion in sensitive ecosystems such as the Tagus estuary.

The **Portela expansion** would require:

- **Clearing and relocating** non-essential facilities currently occupying the area originally designated for the second runway.
- **Improving taxiway efficiency** and terminal logistics to accommodate increased traffic.
- **Mitigating noise pollution** through sound barriers, restricted nighttime operations, and better aircraft routing.
- **Upgrading public transport connections**, particularly by extending the **metro** to the **railway station of Areeiro** and eventually connecting with **Alcântara** and **Loures**.

This approach would preserve Lisbon's **compact city model**, avoid unnecessary sprawl, and reinforce the airport's **strategic role** in the city's international connectivity.

In short, while the **Portela + Montijo** combination remains viable, the **exclusive expansion of Portela** could prove to be **the best long-term solution** — financially, environmentally, and logistically — if implemented with strategic precision and integration with urban planning.

5.4 - Environmental and Territorial Integration

The structural projects proposed for Lisbon must not be seen as isolated undertakings, but as components of a **coherent environmental and territorial system**, which strengthens the **city's sustainability, competitiveness, and habitability**.

This integration involves several complementary actions:

1. **Green Continuum and Water Management**
 - Reconnect the city's green areas, creating a **continuous ecological corridor** linking **Monsanto** to the **riverfront**, following the **natural water basins** of Alcântara and Chelas.
 - Promote the **restoration of water circulation** and the **ecological use of rainwater**, turning stormwater management into an aesthetic and functional feature of public space.
 - Replace ornamental "roadside greenery" with **usable green spaces** — urban forests, community gardens, play areas, and water retention parks.
2. **Energy and Mobility Transition**
 - Encourage **electric micro-mobility** (motorcycles, scooters, small vehicles) by offering **free highway access** and **public charging infrastructure**.
 - Promote **mixed-use development** near public transport hubs to reduce commuting distances.
 - Reuse existing rail and metro corridors to **connect key centers of encounter and distribution: Beato, Alcântara, Belém, Campolide, and Campo Pequeno**.
3. **Housing and Social Inclusion**
 - Develop **residential projects** in areas of **high urban aptitude but low density**, such as **Ajuda, Belém, and Alcântara**, in line with the **20-minute city principle**.
 - Encourage **gradual neighborhood improvement** through **simplified property registration, expedited licensing, and targeted municipal markets for housing and land**.
 - Combat speculation by applying **higher property taxes (IMI)** to **underused urban land** and **vacant buildings**, while **reducing taxes** on properties that offer **public services and amenities** nearby.
4. **Institutional Strengthening**
 - Create a **Municipal and Migration Investment Bank**, enabling the city to **co-finance sustainable development projects** with **European and private funds**.

- Introduce **performance-based municipal budgeting**, linking tax revenue to service delivery quality.
- Promote **competition among public and private providers** in health, education, and housing services to improve efficiency and innovation.

5.5 - The Vision for 2030 and Beyond

Lisbon's sustainable future depends on its ability to **reconnect people, space, and function** — applying the logic of a “**medicine of territory**” that diagnoses and treats spatial dysfunctions rather than prescribing uniform solutions.

By 2030, this vision foresees:

- A **city of 750,000 residents**, economically dynamic, socially inclusive, and environmentally resilient.
- A **metropolitan system** where **mobility, housing, and work** are organized within **20-minute proximities**.
- A **requelified airport**, expanded efficiently within its existing boundaries, acting as a **gateway to Europe and the Atlantic world**.
- A **green and blue network** of ecological continuity, linking water basins, forests, parks, and riverbanks.
- A **diverse and vibrant urban economy**, centered on education, health, culture, technology, and tourism — the city's natural vocations.

Lisbon must thus reclaim its **historic vocation of service** — not by expanding endlessly, but by **intelligently using what already exists**: its geography, its diversity, and its people.

5.6 - Conclusion

The structural projects proposed here — the **reorganization of centralities**, the **20-minute city**, the **expansion of Portela Airport**, and the **integration of green and infrastructural systems** — are not disconnected ideas.

They are **prescriptions in territorial medicine**, aimed at restoring the city's functional balance and enabling Lisbon to fulfill its **mission of sustainability and global service**.

A **healthy city** is one that knows **how to breathe, circulate, grow, and connect** — just like a living organism.

Lisbon, with its river, hills, and people, already has the anatomy of such a city.

What it needs is a **coherent metabolism** — where planning, investment, and citizenship work together for the **sustainable development of its people and places**.

Chapter 6 – The Practice of Territorial Medicine

6.1 - The Concept of Territorial Medicine

Territorial Medicine seeks to diagnose, treat, and monitor the “**diseases**” of **space** — the dysfunctions that affect people and places within a territory — in the same way that medical practice addresses diseases of the human body. Where conventional urban planning tends to focus on **physical forms** or **legal instruments**, Territorial Medicine focuses on **functionality, adaptation, and recovery**, emphasizing **cause and effect, symptoms and treatment**, and the **integration of systems**.

Just as human health depends on the interaction of body systems — circulatory, respiratory, nervous, and immune — so too does territorial health depend on the **interdependence of environmental, economic, social, and institutional systems**. If one of these systems fails, the others are affected: poor mobility reduces access to healthcare and education; weak institutions cause economic stagnation; and environmental degradation undermines public health and tourism. The task of Territorial Medicine is therefore to **observe these interrelations, identify the dysfunctions**, and **propose corrective measures** that are **replicable, measurable, and sustainable**.

In this approach, **Lisbon** serves both as a **patient** and as a **laboratory** — a city where urban pathologies (housing shortage, mobility poverty, regulatory rigidity) can be studied and treated through **interdisciplinary methods** combining geography, economics, ecology, engineering, and governance.

6.2 - The Diagnostic Process

The diagnostic method in Territorial Medicine follows a sequence analogous to medical practice:

1. **Observation** – mapping the territory’s symptoms: environmental degradation, mobility constraints, demographic decline, institutional inefficiency.
2. **Clinical history** – identifying past policies and structural transformations that led to the current condition.
3. **Analysis** – integrating spatial, economic, and social data to determine correlations and causalities.
4. **Diagnosis** – formulating a synthesis that explains the dysfunction in systemic terms.
5. **Treatment plan** – defining interventions (policy, infrastructure, institutional reform) with expected outcomes and measurable indicators.
6. **Monitoring** – evaluating post-intervention results, adjusting policies and investments accordingly.

For example, the **housing crisis** is not merely a shortage of dwellings; it is the result of multiple interlinked dysfunctions — **excessive taxation on property transactions, poor regulation of land use, slow licensing, uncoordinated public transport, and poorly targeted subsidies**.

Territorial Medicine thus prescribes an integrated treatment: fiscal correction, procedural simplification, accessibility improvement, and the establishment of **local housing markets managed by the municipality**.

6.3 - The Instruments of Treatment

The “treatments” in Territorial Medicine correspond to a set of **institutional and spatial therapies** designed to restore functionality.

These instruments include:

- **Fiscal alignment**: ensuring that taxes correspond to the cost and quality of local public services (e.g., adjusting property tax to service access).

- **Spatial rehabilitation:** reusing and revitalizing existing urban areas with latent capacity instead of expanding into environmentally fragile zones.
- **Regulatory simplification:** reducing bureaucracy in licensing and property registration to stimulate legitimate investment.
- **Institutional competition:** allowing public and private entities to compete in providing education, health, and cultural services.
- **Community participation:** engaging residents in the identification of local problems and solutions through neighbourhood-level projects.
- **Mobility reform:** prioritizing public and electric transport, pedestrian networks, and mixed-use developments.

These interventions are not meant to be revolutionary but **incremental and systemic**, accumulating **small, coordinated improvements** that together yield **long-term sustainability**.

6.4 - The Doctor–Patient Analogy

In this metaphor, the **territorial physician** — planner, economist, or geographer — must act **not as a bureaucrat prescribing static plans**, but as a **clinician of space** who listens, observes, and adjusts treatment to the evolving condition of the territory.

- **Diagnosis without arrogance:** acknowledging uncertainty and revising hypotheses as new data emerges.
- **Prescription with responsibility:** each plan must include cost, timeline, and measurable outcomes.
- **Treatment with empathy:** recognizing that people, not maps, are the real patients of urban dysfunction.
- **Ethics of subsidiarity:** higher-level institutions (state, region) must support, not dominate, local capacity.

The success of territorial medicine depends on the **proximity between decision and consequence** — just as the doctor’s care depends on continuous feedback from the patient.

When a municipality can **observe, decide, and adapt quickly**, governance becomes preventive rather than reactive.

6.5 - From Research to Practice

The practice of Territorial Medicine requires a **knowledge base** built on **spatial data, statistical modeling, and participatory observation**.

For Lisbon, this implies:

- Developing a **territorial observatory** that integrates environmental, social, and economic indicators in real time.
- Encouraging **universities and research centers** to collaborate with the municipality in applied urban research.
- Training a new generation of **“territorial physicians”** — interdisciplinary professionals capable of diagnosing and treating urban and regional issues.

These practitioners would use analytical tools such as **Geographic Information Systems (GIS)**, **input–output models**, and **multi-criteria evaluation**, combined with **qualitative fieldwork**, to monitor territorial health and guide policy.

6.6 - The Ethical Dimension

Like medicine, Territorial Medicine operates within an **ethical framework**. It must balance individual rights with collective well-being, respecting property, freedom, and human dignity while ensuring social equity and environmental stewardship.

Its ethics rest on three principles:

1. **Responsibility:** each decision-maker must be accountable for the territorial consequences of their actions.
2. **Subsidiarity:** decisions should be taken as close as possible to the people and places affected.
3. **Stewardship:** territories are living systems to be cared for, not exploited — every intervention must aim at the long-term health of the environment and community.

Thus, Territorial Medicine becomes not only a science but a **moral practice**, binding knowledge to conscience.

6.7 - Lisbon as a Living Organism

Lisbon can be seen as a **living organism**, with its **arteries (roads and metro lines)**, **lungs (green spaces and river breezes)**, **heart (central neighborhoods and institutions)**, and **nervous system (digital and governance networks)**.

Its current ailments — poor mobility in peripheral zones, loss of central vitality, excessive bureaucracy — are not fatal but **chronic conditions** that require consistent, intelligent care. Through Territorial Medicine, Lisbon can **regenerate its tissues**, **restore its circulatory systems**, and **rebalance its metabolism** between the environment, economy, and society. The aim is a city that **breathes**, **connects**, and **grows with purpose**, rather than expanding mechanically.

A city where **each neighborhood** is healthy in itself and contributes to the health of the whole.

6.8 - Conclusion: From Diagnosis to Cure

The practice of Territorial Medicine invites us to see urban development not as a product of ideology or convenience, but as a **living process of care**. Cities, like people, fall ill through neglect, imbalance, and arrogance; and they heal through attention, harmony, and humility.

Lisbon's sustainable future will depend on its ability to **listen to its own body** — to the pulse of its people, the breath of its spaces, and the memory of its land. Only by aligning knowledge, responsibility, and empathy can we transform diagnosis into cure, and planning into true governance.

Chapter 7 – Governance for Sustainable Development

7.1 - The Role of Governance

Sustainable development depends not only on ideas and projects but on the **capacity to govern** — that is, to **coordinate people, institutions, and resources** toward a shared goal. Governance is not the same as government. While government refers to **formal authority**, governance refers to the **system of interactions** among citizens, markets, communities, and public institutions that produces collective results.

In Lisbon, as in many cities, the **governance deficit** is more damaging than the lack of resources.

The city has funds, knowledge, and human capital; what it often lacks is the **institutional coherence** to align these assets under a long-term vision. Fragmentation between agencies, ministries, and levels of government leads to **duplicated efforts, bureaucratic inertia**, and **contradictory regulations** that undermine effective action.

Governance for sustainable development must therefore focus on **subsidiarity, responsibility, and integration** — ensuring that decisions are made at the appropriate level, by those most affected and most capable of implementation.

7.2 - The Principles of Good Territorial Governance

Good governance in the context of territorial medicine rests on several interrelated principles:

1. **Transparency:** all public decisions and expenditures must be visible and understandable to citizens.
2. **Accountability:** every policy, plan, or project must have a responsible entity, a timeline, and measurable outcomes.
3. **Participation:** citizens, communities, and private stakeholders must be involved in the definition, implementation, and monitoring of policies.
4. **Integration:** environmental, economic, and social objectives must be coordinated rather than treated in isolation.
5. **Continuity:** municipal policy should transcend electoral cycles, guided by evidence and long-term goals.

These principles transform the municipality from a bureaucratic authority into a **facilitator of sustainable action**, empowering families, companies, and local communities to fulfill their potential.

7.3 - Institutional Architecture

The institutional structure needed to apply these principles in Lisbon involves several key reforms:

- **Decentralization to the parishes (freguesias):**
Parishes must be given more autonomy and direct fiscal capacity to manage local services, aligning taxation with the quality and proximity of public goods such as sanitation, mobility, and green spaces.
- **Inter-municipal cooperation:**
The Lisbon Metropolitan Area should function as a **coordinating platform** for transport, housing, and environmental management, supported by a **shared investment fund** among the municipalities.
- **Public-private partnerships:**
The city should stimulate joint ventures between public authorities and private investors in areas such as renewable energy, social housing, and cultural infrastructure.
- **Civic innovation:**

Encourage the creation of **neighbourhood councils**, composed of residents, local businesses, and civic associations, to co-manage projects at the micro scale — a form of participatory subsidiarity.

These institutions must be supported by a **municipal information system** that integrates all spatial and fiscal data, ensuring transparency and efficiency.

7.4 - Fiscal Responsibility and Incentives

Fiscal policy is the backbone of governance. Without financial coherence, even the best plans remain theoretical.

For Lisbon, sustainable governance requires a **direct relationship between taxes paid and services provided**.

The following measures are recommended:

1. **Align property tax (IMI)** with the **cost and quality of municipal services** — lower taxes where amenities are scarce, higher where services are abundant.
2. **Introduce a municipal “use incentive” system** — rewarding property owners who rehabilitate buildings or make vacant units available for housing.
3. **Simplify and digitize licensing** to reduce corruption and attract legitimate investment.
4. **Create the Municipal and Migration Investment Bank** proposed in Chapter 4, to finance development projects with **European and private capital** under strict accountability.
5. **Eliminate distortionary transaction taxes** (like excessive stamp duty) that inflate housing prices and discourage mobility.

These fiscal instruments would turn Lisbon’s governance into a **self-regulating system** — responsive to both economic efficiency and social justice.

7.5 - Data, Knowledge, and Decision

One of the main weaknesses of urban governance is **decision-making without evidence**. In the age of digital transformation, Lisbon must embrace **data-driven governance** — not as a technocratic substitute for politics, but as its foundation.

Key actions include:

- **Creating a Territorial Observatory**, integrating real-time data on mobility, housing, energy, environment, and well-being.
- **Developing a Sustainable Development Dashboard** aligned with the 17 SDGs, allowing continuous public monitoring of progress.
- **Training municipal staff** in analytical and digital tools such as GIS, data science, and system modeling.
- **Publishing open data** to encourage citizen participation and independent oversight.

With these tools, decision-making becomes **adaptive** — learning from results and adjusting policies dynamically, just as a physician refines treatment in response to a patient’s evolution.

7.6 - Governance and Citizenship

Good governance requires not only efficient institutions but **engaged citizens**. A healthy city depends on the **responsibility and participation of its inhabitants** in everyday decisions — from how they use public space to how they pay taxes and choose representatives.

Citizenship in a sustainable city is therefore **active, informed, and relational**. It involves three levels of engagement:

1. **Personal**: adopting sustainable lifestyles and respecting shared spaces.
2. **Community**: participating in local projects and associations.

3. **Political:** contributing to informed debate and accountability. Education plays a crucial role in this process. Schools, media, and universities must foster a **culture of territorial responsibility**, teaching citizens to perceive their city as a living organism that depends on collective care.

7.7 - Risks and Pathologies of Governance

Like the human body, governance can develop **pathologies**.

The most common include:

- **Institutional sclerosis:** excessive bureaucracy that blocks innovation and responsiveness.
- **Clientelism:** using public resources to reward loyalty rather than merit.
- **Cognitive blindness:** ignoring data and evidence that contradict established beliefs.
- **Short-termism:** focusing on electoral cycles rather than long-term sustainability.
- **Moral fatigue:** loss of civic trust caused by corruption and impunity.

Territorial Medicine teaches that **prevention is better than cure**. Thus, the best way to protect governance from these diseases is through **transparency, decentralization, and civic vigilance**.

7.8 - The Municipality as a Mediator

The Lisbon City Council must not see itself as a monopolist of urban power but as a **mediator among diverse interests** — public, private, and communal.

Its main role is to **harmonize these interests** in pursuit of collective well-being, ensuring that each actor — residents, entrepreneurs, investors, tourists, and institutions — finds a legitimate place in the city's metabolism.

The municipality's mediation involves:

- **Facilitating investment** rather than controlling it.
- **Setting clear and fair rules** rather than arbitrary restrictions.
- **Promoting diversity and complementarity** among neighborhoods and functions.
- **Listening to feedback** and adapting policies in real time.

In this sense, the municipality acts as the **nervous system** of the city — transmitting signals, coordinating responses, and maintaining balance.

7.9 - Conclusion: Governing Through Wisdom

Governance for sustainable development is the art of transforming **knowledge into wisdom** — of linking data, values, and action in a coherent system of care for the territory. Lisbon's challenge is not to invent new doctrines but to **rediscover the intelligence of simplicity** to collect fair taxes, provide good services, trust its people, and learn continuously from its successes and mistakes.

When governance becomes a practice of **listening, learning, and serving**, it ceases to be a bureaucratic mechanism and becomes what it was always meant to be — a **form of collective intelligence**, the political expression of **territorial medicine** applied to the living body of the city.

Chapter 8 – A Prescription for Lisbon

8.1 - From Diagnosis to Prescription

Having diagnosed Lisbon's main dysfunctions and identified the systemic interrelations between its environmental, social, economic, and institutional components, it becomes necessary to move from **understanding to action** — from **diagnosis to prescription**.

A prescription in Territorial Medicine is not a rigid plan, but a **set of coordinated measures** that restore the balance between people and places. It is a living document — a therapeutic program that can be adjusted according to the evolution of the “patient”: the city.

Lisbon's recovery does not depend on grand gestures, but on a series of **small, precise, and consistent actions**, rooted in evidence and proximity, capable of reinforcing its natural and human capital.

Just as a doctor prescribes medication, diet, and exercise adapted to the patient's metabolism, the **territorial physician** prescribes a balanced combination of **investment, regulation, and education** adapted to the city's geography, culture, and vocation.

8.2 - The Therapeutic Priorities

Lisbon's “treatment plan” can be organized into **four therapeutic priorities**, each corresponding to a dimension of sustainability — **environmental, economic, social, and institutional**.

A. Environmental Therapy – Healing the Territory

The first priority is to **restore environmental functionality**, by:

- Reconnecting the **green and blue networks**, ensuring continuity between Monsanto, the riverfront, and the valleys of Alcântara and Chelas.
- Expanding **usable green spaces** within walking distance of every neighborhood.
- Promoting **energy transition** through electric mobility and the rehabilitation of energy-efficient buildings.
- Regenerating **urban water basins** with visible and accessible watercourses, creating a city that celebrates its hydrology rather than hiding it.

Environmental health is the **foundation** for all other dimensions of development — it purifies the air, reduces heat, and enhances citizens' physical and mental well-being.

B. Economic Therapy – Stimulating the Metabolism

The second priority is to **revitalize Lisbon's economic metabolism** by:

- Supporting **productive investment** in innovation, culture, and services that connect the city to global markets.
- Encouraging the creation of **basic jobs** (those linked to external demand) to raise the city's population to 750,000.
- Promoting **competition and efficiency** in the provision of health, education, and housing.
- Reducing bureaucracy and transaction costs for entrepreneurs.
- Introducing **dynamic taxation**, where tax rates adjust to service quality and proximity.

An efficient economy, like a healthy metabolism, converts resources into energy — turning work, knowledge, and creativity into collective prosperity.

C. Social Therapy – Strengthening the Social Fabric

The third priority is **social inclusion**. No city can be sustainable if its people are left behind.

To heal the social fabric:

- Create **housing opportunities** for all income levels, especially near jobs and services.
- Support **neighborhood schools, clinics, and recreation spaces** within walking distance — the 20-minute city model.
- Promote **gender equality, safety in transport, and child protection**.

- Reinforce local communities as spaces of solidarity and belonging.

The goal is to ensure that every Lisbon resident — regardless of origin, age, or status — can participate fully in urban life.

D. Institutional Therapy – Restoring Governance

Finally, **institutional reform** is essential for lasting recovery:

- Decentralize power to the parishes (freguesias).
- Simplify regulation and increase transparency.
- Introduce **performance-based management** in public administration.
- Strengthen **public participation** in budgeting and planning.
- Create a **Municipal and Migration Investment Bank** to channel and monitor sustainable investments.

Institutions are to a city what the immune system is to a body: they detect dysfunctions, react to threats, and maintain internal balance. Without them, no sustainable progress is possible.

8.3 - The Dosage – Steps for Implementation

A good prescription includes not only the treatment but also the **dosage** — the timing, scale, and combination of actions.

For Lisbon, implementation should proceed in **three waves**:

Short Term (2025–2027)

- Simplify licensing and property registration.
- Begin rehabilitation of riverfronts at **Beato** and **Alcântara**.
- Create the **Territorial Observatory** and Sustainable Development Dashboard.
- Pilot **“20-minute city” neighborhoods** in high mobility-poverty areas.
- Expand incentives for **electric mobility** and small-scale renewable energy.

Medium Term (2028–2030)

- Relocate part of the **University Campus** and **Júlio de Matos Hospital** to **Monsanto**, creating new green and residential spaces in their place.
- Start the **expansion of Lisbon Airport (Portela)** within its existing perimeter.
- Connect **Alcântara Terra to the Cascais Line** and extend the **metro** toward **Campo Pequeno** and **Loures**.
- Complete green corridors linking **Monsanto, Campolide, and the riverfront**.
- Fully implement **performance-based municipal budgeting**.

Long Term (2030–2050)

- Consolidate Lisbon as a **model city of territorial medicine**, exporting its knowledge and experience.
- Achieve carbon neutrality and full ecological integration with the Tagus estuary.
- Reach a balanced demographic of **750,000 residents**, within a **metropolitan area of 3.75 million**.
- Maintain **zero municipal debt** and a **transparent, data-driven governance model**.

8.4 - Indicators of Healing

To evaluate progress, Lisbon’s recovery must be continuously measured through **key indicators**, aligned with the Sustainable Development Goals (SDGs):

Dimension	Indicator	2025 Baseline	2030 Target
Environmental	Greenhouse gas emissions per capita (tons CO ₂ e)	3.2	3.0
Environmental	Forest area variation (%)	–5.0	0.0
Economic	Average monthly income (€)	1,800	2,500
Economic	Gross value added per industrial worker (€ thousand)	105	200
Social	Beneficiaries of social income support (% of working age)	40	20
Social	Female leadership positions (%)	42	50
Institutional	Municipal debt per inhabitant (€)	500	0
Institutional	Water bodies in good condition (%)	0	20

These indicators act like the **vital signs** of a patient — they do not capture everything, but they reveal the general health of the system.

8.5 - The City as a Patient and as a Healer

In Territorial Medicine, the city is not only the patient but also part of the cure. Each citizen, family, and organization is both **a cell of the organism** and **a participant in its healing**.

By acting responsibly, paying fair taxes, using resources efficiently, and caring for public spaces, every person contributes to the city's recovery.

Lisbon, therefore, must cultivate a **civic culture of care** — a consciousness that the health of the territory is the health of its people.

When citizens see themselves as stewards rather than consumers of the city, governance becomes collective therapy, and sustainability becomes second nature.

8.6 - A Final Note: Hope as a Strategy

Hope is not an emotion here — it is a **strategy**. To hope is to act with the belief that things can improve if we make them improve. Lisbon's history has been marked by moments of devastation followed by renewal — earthquakes, revolutions, crises — and yet it has always rebuilt itself stronger and wiser.

This book's final prescription is simple:

- **To heal Lisbon is to restore its vocation to serve — its people, its territory, and the world.** That vocation requires humility to learn, courage to change, and perseverance to continue — the same virtues that sustain life itself. If we practice Territorial Medicine with those virtues, **Lisbon will not merely survive; it will thrive** — as a living example that cities, like people, can be cured through knowledge, compassion, and purpose.

Chapter 9 – Epilogue – The Future of People and Places

The reflections presented in this book are born from a conviction: that **people and places are inseparable**.

There are no sustainable people without sustainable places, and there are no sustainable places without people capable of caring for them.

Lisbon, like any living organism, has gone through cycles of **growth and decline, injury and recovery**.

Its history is not a linear narrative of progress, but a rhythm — a heartbeat — that alternate between expansion and introspection, between conquering the world and rediscovering itself.

The task of our time is to restore this rhythm in harmony with the planet and with ourselves.

9.1 - The Human Dimension of Sustainability

Sustainability has too often been reduced to technical or environmental terms — carbon emissions, green spaces, infrastructure. But the true foundation of sustainability is **human**: it is built on education, trust, ethics, and love for place.

A city is sustainable when its people are **healthy, creative, and responsible**.

It is not enough to have parks and solar panels if we do not also cultivate **kindness, cooperation, and belonging**. The environment reflects the moral condition of its inhabitants — polluted cities mirror polluted relationships.

In this sense, sustainability begins not in the streets but in the **hearts of citizens**. A culture of sustainability grows when each person understands that their freedom is inseparable from their responsibility toward others and toward the land they inhabit.

9.2 - The Territory as a Teacher

The territory teaches. Its geography, its history, and its rhythms of life are not obstacles to be overcome but lessons to be learned.

Lisbon's hills, valleys, and river are more than topography; they are metaphors for resilience, diversity, and flow. To walk through Lisbon is to study geography with one's feet and history with one's eyes. Every corner — from Alfama to Alcântara, from Graça to Belém — reveals a page of the collective book written by those who lived, dreamed, and worked here.

The **territorial physician** must learn to listen to these lessons, because the land, like a patient, speaks through signs — erosion, abandonment, congestion, silence. If we learn to read them, we can heal without destroying, grow without suffocating, and modernize without forgetting.

9.3 - A Science of Care

The idea of **Territorial Medicine** is not only a metaphor but an invitation to rethink how we plan, govern, and inhabit space. It asks us to replace the arrogance of control with the **humility of care**, and to view planning as an act of service, not domination.

This science of care rests on three forms of intelligence:

- **Technical intelligence**, which provides data and methods.
- **Social intelligence**, which understands relationships and cultures.
- **Moral intelligence**, which guides decisions with empathy and justice.

When these three come together, knowledge becomes wisdom — the essence of good governance and sustainable life.

9.4 - Lisbon's Global Mission

Lisbon's destiny has always been to **serve and connect**. From its foundation to the discoveries, from empire to reconstruction, its strength has come from **openness to the world** and **hospitality to difference**. That mission remains relevant today — not through conquest, but through **cooperation, knowledge, and example**.

Lisbon can become a **world reference** for sustainable urban development — a city that shows how to heal territory through participation, science, and faith in humanity. Its port can connect economies; its universities can connect knowledge; its neighbourhoods can connect cultures. In doing so, Lisbon would fulfil its ancient calling: to be a **bridge between peoples**, a **city of encounter and renewal**.

9.5 - Final Reflection

Every generation inherits a city and leaves another behind. We received Lisbon as a complex, fragile, and beautiful body — marked by scars but still full of vitality. What we leave will depend on whether we treat it as **a patient to be healed** or **a resource to be exploited**.

If we choose the path of **Territorial Medicine**, we will learn to heal by knowing, to plan by listening, and to govern by serving.

Then Lisbon will not merely survive in time — it will **flourish in meaning**, becoming once again a city that belongs to everyone because it serves everyone.

And that, ultimately, is the true definition of **sustainable development: the art of caring for people by caring for their places**.

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