

Differentiated strategies for low-density territories

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Executive summary

Over recent decades, Portugal has undergone profound demographic transformations, marked by population ageing, natural decrease and the continued out-migration of young adults from many low-density territories (LDTs). These processes have widened the divide between a more dynamic urban coastline and LDTs, which exhibit differentiated patterns of population decline and distinct structural vulnerabilities and potentialities. Drawing on indicators of demographic vulnerability and territorial attractiveness, the analysis identifies different profiles of LDTs, distinguishing areas of risk, resilience and transformative potential that require differentiated public-policy responses. The analysis of policy instruments and discussions with territorial stakeholders show that conventional attractiveness factors remain highly relevant in these territories, particularly proximity services, access to housing and, above all, economic activity. Beyond the need to structure responses for specific target groups – young families, remote workers, and older residents – the relative importance of attractiveness factors varies across territories. In territories with higher potential, the activation of housing supply and economic infrastructure stand out as drivers of attraction. In territories experiencing more pronounced decline, priority should be given to mobilising vacant housing, providing adaptive services, and supporting conditions that allow residents to remain.

Recommendations

- Develop municipal programmes for the rehabilitation and re-use of vacant housing;
- Implement affordable rental programmes and medium-term housing solutions;
- Strengthen incentives for economic activity and business location;
- Expand proximity-based services of general interest;
- Adopt differentiated territorial strategies that distinguish territories with stronger attraction potential from territories experiencing structural decline.

Target Audience

Public decision-makers and entities responsible for the planning and implementation of territorial and demographic policies.



The challenge: the structural paradigm of population ageing in Portugal

Population decline and ageing are now among the most profound territorial transformations in Portugal. Although the phenomenon is often described as the depopulation of the interior, empirical evidence shows that low-density territories (LDTs) do not constitute a homogeneous block. Instead, they display distinct demographic trajectories, economic structures, and conditions of attractiveness (Rodríguez-Pose & Ketterer, 2012; Silva, Silva & Malheiros, 2022).

This heterogeneity is central to understanding the problem, because population loss does not result solely from natural dynamics associated with ageing and low fertility. It is also the outcome of cumulative territorial processes, such as the selective migration of young people, the concentration of economic activities, unequal access to services of general interest, and the functional weakening of certain spaces (Fonseca, 2024; Góis & Marques, 2018). Over several decades, these dynamics have reinforced internal divides in Portugal, consolidating a dualism between territories of population concentration and territories experiencing prolonged demographic contraction (Ferrão, 2018; Silva, Silva & Malheiros, 2022).

In LDTs, this cycle tends to become structural. The outflow of working-age population reduces the capacity for generational renewal and weakens local labour markets. At the same time, the reduction in critical population mass makes it more difficult to sustain economic and social functions, generating cumulative effects that amplify territorial vulnerability (Ferrão, 2018; Haase et al., 2014).

Recent evidence nevertheless shows that this process is neither uniform nor irreversible.

Some low-density territories retain the capacity to hold or attract population, benefiting from specific economic dynamics, better housing conditions, relative accessibility to services, or integration into broader urban networks (Rodríguez-Pose & Ketterer, 2012; Syssner, 2020). By contrast, many municipalities combine demographic decline with low structural attractiveness, leading to greater fragility.

Historically, strategies to counter this decline have relied on compensatory growth approaches, focused on reversing population loss through monetary incentives, including fiscal measures, or through place-marketing strategies (Hospers, 2011; Rainisto, 2003). However, the literature shows the limitations of such approaches, insofar as depopulation frequently results from deep structural transformations associated with demographic transition, urbanisation processes, and the reorganisation of regional economies (Dumont, 2019; Ferrão, 2018). Planning on the assumption of continuous growth can intensify infrastructural and financial inefficiencies.

Ageing and decline, therefore, require more differentiated strategies, including approaches such as smart shrinkage or rightsizing (Béal et al., 2019; Hollander, 2011), as well as the identification and mobilisation of retention and attraction factors across different types of territory. Demographic contraction should thus be managed strategically, combining selective reversal and mitigation with safeguarding the quality of life, territorial efficiency and social innovation (Hospers & Syssner, 2018; Syssner, 2022).

Methodological note: composite indices

The analysis of territorial patterns is based on four composite indices: one Demographic Vulnerability Index (DVI) and three Territorial Attractiveness Indices (TAI). These indices aggregate previously normalised and weighted statistical indicators, enabling the different realities associated with each dimension to be synthesised into a single value.

The Demographic Vulnerability Index (DVI) summarises processes of ageing, decline and population renewal, integrating variables such as demographic growth, age structure, fertility and migratory mobility.

The Territorial Attractiveness Indices (TAI) measure factors with potential to mitigate

demographic decline, grouped into three key dimensions:

- Housing Index (HI): measures the conditions of the housing stock, combining indicators of supply, vacancy, affordability, building quality, and housing use.
- Economic Dynamism Index (EDI): measures the economic performance of territories, combining indicators of productive capacity, income, labour markets, qualifications, and recent dynamism.

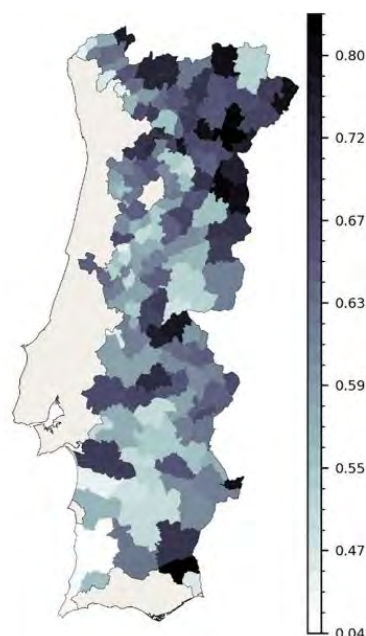
- Services of General Interest Index (SGII): measures access to essential services, combining indicators of proximity to facilities (education, health, and food retail), pressure on services, and installed capacity.

Together, these indices provide an integrated reading of the factors that shape territorial vitality. Their combined interpretation is essential for identifying vulnerabilities, resources, inequalities, and revitalisation potential.

Main results

The analysis of demographic vulnerability (DVI) shows that, although pronounced ageing, prolonged population loss, and weak generational renewal are structural trends across much of the country's interior, their intensity varies significantly. A continuous corridor of high demographic fragility extends from the northern interior to the Alentejo, where the combination of persistent population decline and pronounced ageing reaches particularly critical levels. In these territories, the probability of crossing minimum thresholds of demographic viability is particularly high.

Nevertheless, some municipalities exhibit lower levels of vulnerability, often associated with slightly positive migration balances or greater proximity to intermediate urban centres. These cases reveal differentiated margins of resilience even within the universe of low-density territories.

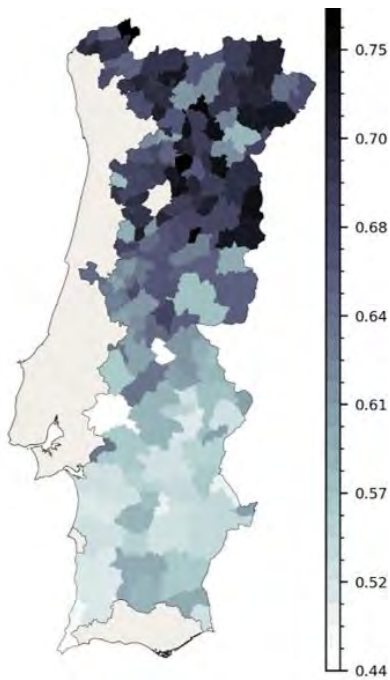


Source: Authors' elaboration (2026)

Figure 1. Demographic Vulnerability Index (DVI)

The structural attractiveness factors reveal an equally heterogeneous pattern. Housing conditions, economic dynamism, and access to services of general interest vary significantly, reflecting different capacities to attract and retain population. This diversity forms a territorial mosaic of opportunities and constraints, in which territories with favourable conditions coexist with territories marked by structural limitations.

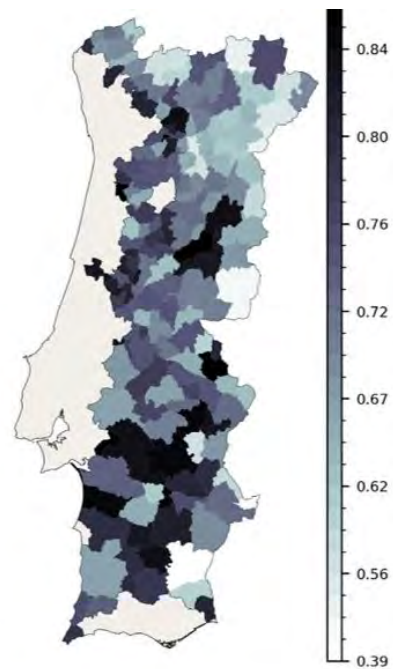
Figure 2. Housing Index (HI)



Source: Authors' elaboration (2026)

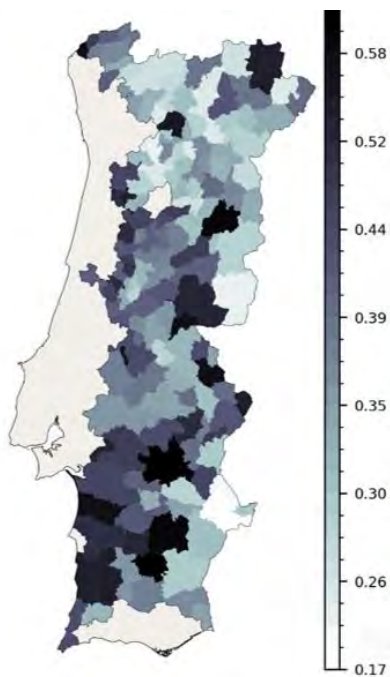
Source: Authors' elaboration (2026)

Figure 4. Services of General Interest Index (SGII)



Source: Authors' elaboration (2026)

Figure 3. Economic Dynamism Index (EDI).



In several territories, economic fragility constitutes the main constraint on attractiveness, reflecting small labour markets and limited productive diversification. In other contexts, limitations are primarily associated with access to essential services and accessibility, reinforcing processes of functional isolation. At the same time, some low-density territories display relatively high levels of attractiveness in at least one of the dimensions analysed.

At the same time, some territories emerge which, despite being located in low-density areas, display relatively high levels of attractiveness in at least one of the dimensions analysed.

Territorial profiles

Cross-analysis of demographic vulnerability and territorial attractiveness identifies four broad territorial profiles. In this English scientific version, the quadrant labels are harmonised with the analytical matrix: demographic vulnerability may be high or low, and territorial attractiveness may be high or low.

•**Critical territories** (high vulnerability / low attractiveness): territories in persistent decline and with low overall attractiveness. They require strong compensatory policies, exogenous support and integrated interventions across housing, employment and services.

•**Stable but weakly attractive territories** (low vulnerability / low attractiveness): territories where the priority is to prevent future decline by strengthening the structural factors of attractiveness.

•**Resilient and attractive territories** (low vulnerability / high attractiveness): territories where policies should focus on consolidation and the diffusion of good practices, ensuring that current dynamism does not create new bottlenecks, such as housing-market pressure.

•**Demographically fragile territories with recovery potential** (high vulnerability / high attractiveness): territories that combine high

vulnerability with some attractiveness. The priority is to reinforce and accelerate existing opportunities, preventing vulnerability from becoming irreversible.

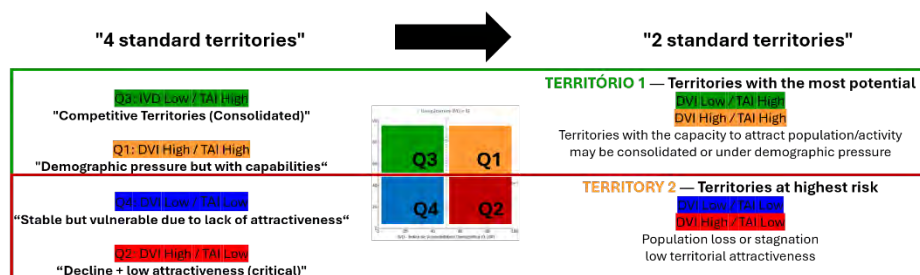
These profiles are not rigid categories, but analytical portraits that help interpret the internal diversity of LDTs. Their spatial distribution shows that the coastline/interior divide explains only part of the reality, since there are substantive differences within the interior itself.

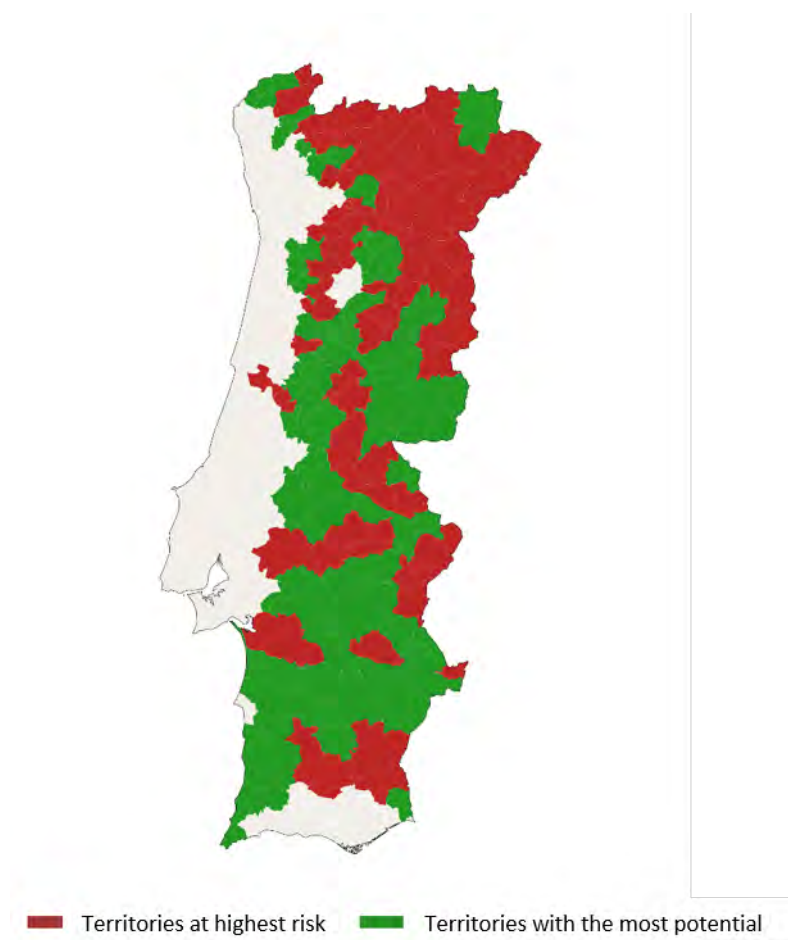
To translate the typology into operational categories, the four profiles were grouped into two broader territorial types:

Type 1 territories (with potential): areas that preserve some capacity to retain or attract population and may, in some cases, face pressure on the housing market or service networks.

Type 2 territories (at greater risk): contexts of structural decline with high levels of vulnerability and structural conditions that hinder the reversal of ageing and decline processes, such as weak economic bases, unfavourable age structures, or difficulties in attracting immigrants to compensate for losses through emigration or natural decrease.

Figure 5. Analytical matrix of territorial profiles and territorial types





Source: Authors' elaboration (2026)

Participatory discussion and validation of measures

Successful public policy requires the involvement of territorial stakeholders, whose knowledge of institutional constraints and of the success or failure of measures already implemented enriches academic analysis.

A participatory session was therefore held at the Polytechnic Institute of Castelo Branco with approximately 25 stakeholders from local, regional and national entities. The session aimed to evaluate and prioritise 26 policy hypotheses across housing, economy, services and cross-cutting policy axes.

This exercise enabled the expected performance of measures to be categorised across the two territorial typologies identified:

Robust measures (cross-cutting): interventions with strong potential effectiveness in either territorial context. Stakeholders selected five anchor instruments: municipal programmes for the rehabilitation and occupation of vacant buildings, affordable rental schemes for new residents, incentives for business location, investment in training and skills conversion, and mobile health or social-support services.

Contingency measures (context-dependent): measures whose effectiveness varies with local conditions. In Type 1 territories, programmes for welcoming new residents and support for childcare facilities are particularly relevant. In Type 2 territories, guided integration of labour migrants and flexible, on-demand public

transport are especially urgent to overcome geographical isolation.

Residual measures: solutions that require a critical population density or substantial

installed institutional capacity and therefore tend to be ineffective in depopulated geographies. This reinforces the conclusion that replicating metropolitan solutions in LDTs is likely to fail.

Policy implications: strategies by target group

Based on quantitative and qualitative evidence, a matrix of strategies is proposed for the main factors contributing to retention and for the management of decline, organised by target group.

A. Strategies for young families

The primary objective is to ensure conditions compatible with stable life projects.

In Type 1 territories, it is important to leverage employment dynamics through partnerships with firms, to generate local employment and support skills conversion. In housing, affordable rental programmes are critical given the scarcity of dwellings available in the market and price pressures. In services, the promotion and financing of childcare provision are decisive conditions for family settlement.

In Type 2 territories, the priority is to secure a basic employment base by supporting microenterprises. The mitigation of abandonment requires programmes for the occupation of vacant buildings and allocate municipal housing. Services require proximity connectivity, through digital solutions and mobile paediatric and social-support services.

B. Strategies for remote workers

This group reduces the dependence of territories on their endogenous economic base.

In Type 1 territories, the relevant measures include incentives to attract international talent, structured fiscal benefits, medium-term rental

supply, co-living projects and ambitious investment in high-quality coworking spaces and advanced technological networks, especially where fibre-optic infrastructure remains insufficient.

In Type 2 territories, the strategy should focus on experimentation through niches, such as six- to twelve-month residencies in vacant low-operating-cost properties, and converting idle community spaces into hybrid facilities that combine municipal services with technology-enabled workstations.

C. Strategies for retired and older residents

This group supports stability and the circulation of income in the proximity economy.

In Type 1 territories, priorities include senior tourism promotion and the structuring of the well-being and leisure services sector. Investment in the housing stock should be supported through intergenerational cohousing projects and guarantees for improvements in technical comfort and accessibility, accompanied by stronger local access to formal healthcare networks.

In Type 2 territories, priorities are centred on dignified ageing in place. Municipalities should encourage direct functional and preventive home adaptations to reduce accident risks. The anchor measures are flexible on-demand transport and mobile health services that physically reach households, preventing acute situations of demographic solitude.

Figure 6. Categorization of recommendations by target audience

Characteristic	 Business Retention	 Housing	 Services / Connectivity
Young Families (Potential)	Incentives for business establishment	Affordable rental programmes	Support for childcare and pre-school education
Young Families (Critical)	Direct support for the creation of microenterprises	Intensive programmes for the rehabilitation and occupation of vacant housing	Mobile health or social support services
Remote Workers (Potential)	Programmes to attract talent and digital nomads	Flexible medium-term rental	Public coworking spaces
Remote Workers (Critical)	Limited intervention	Use of low-cost vacant housing	Minimum digital connectivity infrastructure
Retirees (Potential)	Development of the service economy	Programmes to adapt existing housing	Strengthening the care network
Retirees (Critical)	Basic social support services	Reuse of vacant housing	Mobile health services

Source: Authors' elaboration (2026)

Final conclusions

The demographic decline in low-density territories is a structural challenge for development, territorial cohesion, and sustainability. It results from long-term processes – low fertility, ageing and selective migration – that deepen territorial asymmetries. However, these territories are not homogeneous, which requires differentiated policies tailored to their specificities.

Rather than a uniform pattern of decline, the evidence points to a complex geography characterised by the coexistence of territories in pronounced contraction, territories with adaptive capacity, and contexts with relative levels of attractiveness. The narrative of a homogeneous interior uniformly marked by decline is not empirically supported.

The results indicate three central orientations for public action. First, robust and cross-cutting measures should be prioritised, including affordable housing, rehabilitation of vacant buildings, incentives for economic activity, vocational training and mobile health services, through the reinforcement of the main factors of territorial attractiveness. Second, strategies must be differentiated according to territorial profile, accelerating dynamics in areas with potential while guaranteeing minimum habitability conditions in the most vulnerable territories. Third, policies should be targeted at the specific needs of young families, remote workers, and older residents.

The main challenge lies in articulating diagnosis, strategy, and financing, and in transforming evidence into effective public-policy action.

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HOW TO CITE THIS DOCUMENT

Marques, J. L. Wolf, J., Duarte, J., Almeida, T., Gomes, M. C., Santos, D., Freiria, S., Martins, J. M., Borges, M., Madaleno, M., & Bigotte, J. (2026). *Differentiated strategies for low-density territories*. S4P Policy Brief 8051/2025. PLANAPP – Centro de Planeamento e de Avaliação de Políticas Públicas.

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This policy brief was developed under Science4Policy 2025 (S4P-25): Call for Science for Public Policy Studies, an initiative of the Centre for Planning and Evaluation of Public Policies (PLANAPP), in collaboration with the Foundation for Science and Technology (FCT), funded by Portugal's Recovery and Resilience Plan. Thematic line S4P-25/26: Demographic sustainability: Population decline and population ageing in low-density areas.

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