



33rd APDR CONGRESS

Sustainable Regional Development Academy

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ABSTRACTS

**Interregional Governance,
Cohesion and Sustainability:
Overcoming Territorial Inequalities
for a Balanced Future**



Title

33rd APDR Congress – *Interregional Governance, Cohesion and Sustainability: Overcoming Territorial Inequalities for a Balanced Future: Abstracts*

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33rd APDR Congress

Interregional Governance, Cohesion and Sustainability: Overcoming Territorial Inequalities for a Balanced Future

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Topics

Umbrella Topic

“Interregional Governance, Cohesion and Sustainability: Overcoming Territorial Inequalities for a Balanced Future”

The theme “Interregional Governance, Cohesion and Sustainability: Overcoming Territorial Inequalities for a Balanced Future” underscores the growing importance of collaborative frameworks that promote equitable and sustainable development across regions. In the face of persistent territorial disparities, effective interregional governance emerges as a key mechanism for fostering cohesion, resilience, and shared prosperity. By integrating economic, environmental, social, and cultural dimensions, this approach seeks to ensure that sustainability is achieved not only within individual regions but also across territorial boundaries, paving the way toward a more balanced and inclusive future.

General Topics

- RS01 – Regional Innovation, Entrepreneurship and Sustainable Ecosystems
- RS02 – Interregional Sustainability Strategies
- RS03 – Natural Environment, Resources and Rural Development
- RS04 – Demographic Challenges, Culture, Migrations and Integration
- RS05 – Education, Skills, Labour Markets and Regional Development
- RS06 – Regions and Global Value Chains
- RS07 – Energy Transition and Regional Development
- RS08 – Smart Cities, Digital Transition and AI
- RS09 – Social Innovation, Integration, Poverty, and Gentrification
- RS10 – Territorial Cohesion and Inequalities
- RS11 – Multilevel Governance, Leadership and Regional Development
- RS12 – Regional Resilience, Crises, and Climate Adaptation
- RS13 – Tourism, Culture, Sports, and Sustainable Development
- RS14 – Territorial Responsible Marketing
- RS15 – Quantitative and Qualitative Methods in Regional Science
- RS16 – Digital Transformation and Territorial Competitiveness
- RS17 – Circular Regions and Cities
- RS18 – Fiscal and Regional Policies

Special Sessions’ Topics

SS01 - Between adaptation and climate injustice: intersectional readings of the territory

Beatrice Lorenz Fontolan, Jorge Gonçalves (Chair) & Sílvia Jorge

SS02 - Thermalism and Wellness Tourism for Sustainable and Inclusive Territorial Development

Joana A. Quintela (Chair), Dália Liberato (Co-chair), Pedro Liberato & Joaquim Antunes

SS03 - Collaborative Laboratories towards sustainability transitions responses

Joana Dias (Chair) & Guilherme Saad

SS04 - Drivers of Sustainable Agribusiness for Cohesive, Equitable, and Balanced Territories

Ana Marta-Costa (Chair) & Maria Raquel Lucas

SS05- From local production to tourism development: Gastronomy as driver in low-density territories

Susana Rachão (Chair), Goretti Silva (Chair) & M^a Carmen Pardo López (Chair)

SS06 - Labour Market Transitions in the Digital and Green Economy: Regional Vulnerabilities and Pathways

Teresa Farinha & Andrea Conte

SS07 - Sustainable Tax Governance for the Development of Cities

Tânia Cristina Azevedo (Chair), Ana Arromba Dinis & Fátima David

SS08 - Creative Rural Villages: Innovation, Culture and Territorial Development

Maria Lúcia Pato (Chair) & Ana Mafalda Matias

SS09 - Historical perspectives on contemporary regional development and territorial cohesion

Francisco Cabrera-Gallardo (Chair) & Paula Reis

SS10 - Territorial inequalities and sustainability by the lens of Economic Geography

Fernanda Sperotto, Hélder Santos, Iván Tartaruga (Chair) & Luís Carvalho

SS11 - Sustainability, Risk Management, and Community Resilience in Tourism Hotspots: Challenges for Cities and Regions

Lara Santos, Laurentina Vareiro (Chair) & Bruno Sousa

SS12 - Digital Inclusion and Socio-Economic Inequalities in the Context of E-Commerce Expansion and International Trade Dynamics

Renata Pisarek-Bartoszewska

SS13 - A Local Public Finance Perspective on Regional Development: Fiscal Autonomy, Transparency and Accountability

Soraia Gonçalves (Chair), Eva Maria Miranda, Laurentina Vareiro & Raquel Mendes

SS14 - Sustainable Practices and Climate Change Impacts: Challenges and Pathways for the Tourism Sector

Laurentina Vareiro (Chair), Paula Remoaldo & Hélder Lopes

SS15 - Rural Entrepreneurship and Territorial Cohesion

Maria Lúcia Pato

SS16 - Twin transition for regional futures: digital innovation, sustainability and policy design

Celeste Varum, (Chair), João Almeida & Filipe Sampaio Rodrigues

SS17 - Sustainable Tourism and Regional Development: Environmental Impacts, Challenges, and Policy Responses

Helena Albuquerque (Chair), Makhabbat Ramazanova & Isabel Paiva

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Organization and Support



Congress Venue

The 2026 APDR Congress will be hosted at the [Polytechnic University of Cávado and Ave \(IPCA\)](#) in the Barcelos campus.



[CAMPUS DO IPCA | BARCELOS](#)

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Abstracts

Ordered by ID number

ENTRE INFRAESTRUTURAS E GOVERNAÇÃO: ACESSIBILIDADE E
DESIGUALDADES TERRITORIAIS NA FRONTEIRA LUSO-ESPANHOLA

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Resumo

Objetivo | A acessibilidade constitui um fator central para a coesão territorial e para o desenvolvimento regional sustentável, sobretudo em regiões periféricas e transfronteiriças marcadas por desvantagens estruturais. O presente trabalho analisa as dinâmicas da acessibilidade e as suas implicações para a Cooperação Transfronteiriça (CT) no território de fronteira luso-espanhol, com enfoque nas regiões do Alto Alentejo (Portugal) e da Província de Badajoz (Espanha).

Metodologia | Através de uma abordagem de estudo de caso, suportada por indicadores europeus, avalia-se a acessibilidade potencial por modo rodoviário, ferroviário, aéreo e multimodal, bem como a acessibilidade diária e a provisão de serviços públicos transfronteiriços.

Resultados Esperados | Resultados preliminares evidenciam assimetrias persistentes nos níveis de acessibilidade e entre modos de transporte, apesar das melhorias registadas na sequência de investimentos financiados pela União Europeia e de programas INTERREG. Embora a acessibilidade externa tenha beneficiado do reforço das redes TEN-T, a acessibilidade interna continua condicionada pela baixa densidade populacional, pela fraca oferta de transporte público e por barreiras administrativas e de governação. De facto, tais limitações reduzem a eficácia das iniciativas de cooperação transfronteiriça e dificultam um desenvolvimento territorial mais equilibrado. Portanto, o estudo sustenta que a acessibilidade deve ser entendida não apenas como uma questão de transportes, mas como um desafio de governação inter-regional, essencial para a coesão e a sustentabilidade territorial, sublinhando a necessidade de abordagens integradas e multinível no planeamento regional.

Palavras-chave | Acessibilidade, Coesão territorial, Cooperação Transfronteiriça (CT), Desenvolvimento regional sustentável, Fronteira luso-espanhola, Governação multinível, Transportes.

REGIONAL SMART SPECIALIZATION STRATEGY (RIS3) AND TERRITORIAL COHESION: A SYSTEMATIC REVIEW OF THE LITERATURE

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Abstract

Purpose | Innovation policy is one of the European Union (EU) tools for regions to achieve territorial cohesion through investments that promote competitive advantages. Ten years after the start of the first wave of Regional Smart Specialization Strategies (RIS3) in the 2014–2020 period, these remain a necessary condition for regions to access EU funds from the territorial cohesion fund in the 2021–2027 cycle. The framework of projects in these strategies represents a criterion of admissibility and merit in the Investment Priorities. The overall objective of this thesis project is to explore the contributions of Smart Specialization in the context of integrating locally based innovation policies for territorial cohesion. Specific objectives include identifying current realities in the field of knowledge and research on RIS3, their relationship with sociodemographic changes, and their contribution to carbon neutrality in the EU, considering their territorial implications, with a focus on case studies and support in statistical data analysis.

Methodology/Approach | The proposed methodology involves a combination of exploratory research methods, including literature review, case studies, and primary data collection through interviews and questionnaires, complemented by the mobilization of secondary data.

Expected Results | This work is expected to identify the driving forces behind the dynamics generated by RIS3, adapted to the territories and integrated into the Regional Innovation System. It will analyze whether these systems truly reflect the specific characteristics of the territories in their mission to decarbonize society, demographic resilience, and, more generally, their contribution to sustainable socioeconomic development and territorial cohesion.

Keywords | Smart Specialization (RIS3), Territorial Cohesion, Innovation Policy, Regional Innovation System, Carbon Neutrality, EU Funds, Demographic Resilience.

TOURISM CLUSTERS: TERRITORIAL COHESION AND SYSTEMIC COMPETITIVENESS IN PASTAZA (ECUADOR)

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Abstract

Purpose | Peripheral regions often mobilize tourism clusters as a development strategy, yet the gains can be spatially uneven and fragile under infrastructure deficits, institutional fragmentation, and climate pressures. This paper analyses tourism clusters in Pastaza Province, Ecuador (Amazon region) as a territorial cohesion problem: the province's cantons exhibit distinct competitiveness constraints and different Tourism Area Life Cycle (TALC) stages, implying differentiated governance and investment needs to avoid widening territorial inequalities.

Methodology/Approach | The study combines Porter's Diamond with the Systemic Competitiveness framework (micro, meso, macro, meta) to operationalise multi-level drivers of regional competitiveness and cohesion (Dwyer & Kim, 2003). A mixed methods design with triangulation was implemented: documentary review, structured and semi-structured interviews, participatory group discussions, and a digital survey to tourism enterprises (71 % response; 62 enterprises across Pastaza Puyo, Mera, Santa Clara, and Arajuno). Competitiveness factors were scored on a five-point scale and consolidated into canton profiles; TALC (Butler, 1980) stages were assigned using a criteria set enabling cross-canton comparison.

Expected Results | Empirical results reveal systemic bottlenecks that undermine cohesion and sustainability. Only 48 % of operators rate road access as good; 72 % report insufficient digital connectivity, evidencing a digital divide that constrains market access, innovation, and collaboration. Human capital constraints are salient: 63 % report shortages in specialized guide training. Demand is predominantly domestic (64 %) and seasonal, increasing vulnerability to shocks; repeat visitation reaches 58 %. Cross-sector links are partial (32 % partnerships with transport, 29 % with agriculture, 41 % with artisans), limiting integrated products and local value chains. TALC staging shows uneven development: Arajuno is in exploration to early involvement, Santa Clara in involvement, Mera in development with emerging risks of uniqueness loss through massification, and Pastaza Puyo in consolidation with risk of stagnation without destination regeneration. These differences imply a cohesion trade-off: earlier stage cantons require capability building and connectivity, while later stage areas require diversification, carrying capacity management, and governance upgrading (Álvarez et al., 2024). The paper argues that interregional governance is required to align tourism with sustainable development and to translate cluster growth into inclusive outcomes (Álvarez et al., 2025). It proposes a stage sensitive governance architecture: (i) a provincial coordination platform that sets shared standards for digital inclusion (Juárez, Gómez & González, 2023), guiding skills and environmental safeguards; (ii) canton level co creation labs involving local governments, universities and community or indigenous organizations; and (iii) monitoring indicators for cohesion, including local value capture and collaboration intensity. The framework is transferable to other Amazonian regions where tourism expansion must reconcile competitiveness (Martinez & Raya, 2019), biodiversity protection, and equitable benefit sharing.

Keywords | Territorial cohesion, tourism clusters, systemic competitiveness, TALC, Amazon governance.

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PINACOTECAS RENACENTISTAS Y COHESIÓN TERRITORIAL: ESTRATEGIAS DE GESTIÓN PARA LA CONVERGENCIA URBANO-RURAL EN JAÉN Y PORTUGAL

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Resumen

Objetivo | La investigación analiza la producción artística renacentista como activo estratégico para la cohesión territorial y la convergencia urbano-rural. El objetivo principal es evaluar cómo el uso de modelos de mecenazgo y figuras clave (como Machuca o El Greco) fomentan el desarrollo en entornos rurales y, a su vez, regulan el auge turístico en las áreas metropolitanas.

Metodología | Se emplea un enfoque cualitativo y comparativo estructurado en tres fases. Inicialmente, se realiza una revisión historiográfica y la creación de una base de datos técnica de obras en Jaén y Portugal; en una segunda etapa se aplica un estudio de caso múltiple que compara la gestión en Úbeda, Baeza y Andújar frente al Museu Nacional de Arte Antiga de Lisboa mediante indicadores de gobernanza.

Resultados Esperados | Se prevé la consolidación de un inventario del eje Alto Guadalquivir-Portugal que identifique patrones de dispersión artística inéditos. Los resultados esperan demostrar que la presencia de maestros italianos en enclaves rurales funcionan como "museo-territorio", creando nodos de resistencia frente a la centralización; y finalmente, se aplica un análisis comparado de modelos de gestión para identificar prácticas en la mitigación de la masificación turística y la implementación de estrategias de sostenibilidad en espacios rurales y urbanos.

Palabras clave | Renacimiento, Cohesión territorial, Gestión patrimonial, Turismo sostenible, Jaén-Portugal.

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THE EUROPEAN COHESION POLICY FUNDS REGIONAL SCIENCE
LITERATURE: A SYSTEMATIC REVIEW

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Abstract

Purpose | This paper employs a top-down methodological approach to identify the most relevant contributions in the literature on the impact of European Cohesion Policy and European Structural and Investment Funds (ESIFs) on regional development.

Methodology/Approach | After a broad-spectrum bibliometric review, identifying the overall structure of research in this field, we systematically narrow its focus to quantitative studies and, ultimately, to econometric analyses of ESIF effectiveness.

Expected Results | The results indicate that empirical research on ESIFs has grown in complexity, with increasing reliance on advanced econometric techniques such as spatial econometrics, difference-in-differences, and regression discontinuity designs. While a large portion of the literature finds positive effects on economic growth, employment, and regional convergence, these effects are frequently conditional on governance quality, institutional frameworks, and regional characteristics. In contrast, some studies report insignificant or even negative impacts, highlighting inefficiencies in fund allocation and policy implementation. The findings emphasize the necessity for context-specific policy adaptations, ensuring that ESIFs continue to support the evolving needs of regional economies in the European Union.

Keywords | European Cohesion Policy, European Structural and Investment Funds (ESIFs), Regional development, Bibliometric review, Econometric analysis, Regional convergence.

BARCELOS ROOSTER: THE “ROAST COCKEREL” AS A TRADITIONAL LOCAL DISH**Francisco Gonçalves**

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Barcelos is nationally and internationally recognized as the birthplace of the most iconic symbol of Portuguese tourism: the Barcelos Rooster. This emblem emerges from the convergence between the traditional clay handicraft piece—promoted and disseminated during the Estado Novo regime as a marker of Portuguese cultural identity—and the legend of the “roasted rooster,” linked to the miracle attributed to the Apostle Saint James on the Camino de Santiago, in Barcelos. The interplay between the miraculous narrative and the prominence of Barcelos’ craft production led to the transformation of the “roasted rooster” into a traditional local dish. The creation of the gastronomic confraternity “O Galo de Barcelos” strengthened the touristic promotion of this culinary product, although its historically high price restricted access mainly to higher-income social groups, symbolically echoing the figure of the judge in the medieval legend. This article examines the symbolic, cultural, and touristic evolution of the Barcelos Rooster as an element that integrates territorial identity, gastronomy, handicrafts, and Jacobean narrative, contributing to a deeper understanding of its role in the sustainable and creative development of Barcelos as a tourism destination.

Keywords | Barcelos Rooster, Creative Tourism, Traditional Handicrafts, Local Gastronomy, Cultural Heritage, Camino de Santiago, Territorial Identity, Sustainable Development, Creative Destinations, Barcelos — UNESCO Creative City.

SEM-ABRIGO: PERSPETIVAS TEÓRICAS RECENTES E O CASO DA CIDADE DE LISBOA

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Resumo

Objetivo | A comunicação assume como principal objetivo proporcionar uma visualização do conhecimento teórico recente sobre a realidade dos sem-abrigo e, em simultâneo, oferecer uma leitura da realidade vivida pela população sem-abrigo da Cidade de Lisboa. Os autores pretendem, também, desenvolver uma reflexão sobre a eficácia e a abrangência das estratégias que têm vindo a ser conduzidas pela Câmara Municipal de Lisboa e associações/organizações que apoiam a população com a designada “vivência de rua”.

Metodologia | Em termos metodológicos, o presente trabalho será baseado, num primeiro momento, numa leitura crítica das contribuições teóricas recentes contidas, por exemplo, em publicações de especialidade como por exemplo, o European Journal of Homelessness e, numa segunda etapa, na recolha de bibliografia e de dados estatísticos disponíveis sobre o assunto dos sem-abrigo na Cidade de Lisboa, incluindo a consulta dos Planos Municipais de Cidade onde se propõe um conjunto de estratégias para combater o flagelo dos sem-abrigo em Lisboa.

Resultados Esperados | Enquanto objetivo fundamental da comunicação, inscreve-se o melhor e mais amplo conhecimento das atuais perspetivas teóricas sobre o fenómeno dos sem-abrigo e uma análise cuidada de um caso de estudo, correspondente à Cidade de Lisboa. Deste modo, esperamos contribuir para um debate inadiável no quadro da sociedade portuguesa e relativo à progressiva adaptação de estratégias a novos perfis de população sem abrigo e sem teto.

Palavras-chave | Teorias, Pobreza, Sem-Abrigo, Lisboa, Plano.

GEOECONOMIC RECONFIGURATION IN EUROPE AFTER BREXIT: EVIDENCE FROM PORTUGAL**José Lúcio**

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Purpose | The withdrawal of the United Kingdom from the European Union represents one of the most significant geopolitical and geoeconomic developments in contemporary Europe. This communication examines how Brexit has reshaped economic relations between the European Union and the United Kingdom, using Portugal as a case study to evaluate measurable impacts between 2015 and 2025.

Methodology/Approach | The presentation adopts an applied empirical approach based on publicly available statistical sources, enabling comparison between pre-referendum, transition and post-withdrawal phases. The analysis focuses on trade flows, tourism dynamics, investment patterns and demographic mobility, sectors particularly exposed to UK-Portugal relations. Results indicate that Brexit generated observable economic disruptions, especially in trade and tourism sectors, affecting regions with stronger economic links to the United Kingdom. However, subsequent data also reveal significant adaptive responses, including partial recovery of flows and diversification towards alternative markets.

Expected Results | The Portuguese case illustrates how a peripheral European economy adjusts to geopolitical and geoeconomic shocks while remaining embedded in broader European integration processes. The findings suggest that Brexit did not generate systemic disruption within the European Union but accelerated an ongoing reconfiguration of European geoeconomic relations. Brexit thus emerges less as a decisive rupture than as a catalyst for economic adjustment across Europe, representing a structural reality to which both the European Union and the United Kingdom must pragmatically adapt.

Keywords | Brexit; Geoeconomics; European Union; Portugal; Economic adjustment; Territorial impacts.

THE STAKEHOLDER'S PERSPECTIVE OVER TERRITORIAL MARKETING STRATEGY: THE CASE OF THE MUNICIPALITY OF PALMELA**José Lúcio**

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The purpose of this communication is to provide a “step forward” in the context of a work in progress related to territorial marketing strategies aimed to promote a multidimensional approach to the issues of local development, and using the Palmela municipality as a case study. In previous works (see, for instance, Lúcio, Marques & Moita (2019 and 2020) the authors presented a theoretical approach and a first perspective to what may be a prefiguring strategy, at the same time reflective and at the other time operational, of place marketing for the territory of the Municipality of Palmela. In the context of the present paper, our intention is to focus on a particular and most relevant issue where marketing places strategy is concerned: the way local and regional stakeholders, both public and private, project and evaluate possible territorial marketing initiatives and strategies. This way, the main objectives for the present communication include, on the one hand, defining a summary of the marketing places strategy for Palmela and, on the other hand, analyzing how the main stakeholders with influence and interests in Palmela evaluate the current “state of affairs” where territorial marketing aimed to improve Palmela’s competitiveness is concerned. In terms of the structure of the paper, we will divide our work into two fundamental parts: in a first moment, and using the studies that have been developed by local authorities we will try to produce a summary of the main goals, objectives and initiatives of the current territorial marketing approaches; the second part of our paper it will be dedicated to a deep analysis of the stakeholder’s perspective over the said approaches. Finally, we will build a set of conclusions aimed at understanding how stakeholders recognize the value and the potential effectiveness of Palmela’s territorial marketing strategies and what kind of improvements could be introduced in those strategies.

In terms of sources of information, and in addition to studies, statistical bases and work already carried out by the municipality in the strategic domain, we will use a wide set of interviews with stakeholders who are present in Palmela.

Keywords | Marketing Places, Palmela, Promotion, Strategy, stakeholders.

ECONOMICS OF KNOWLEDGE AND REGIONAL DEVELOPMENT: THE POTENTIAL OF CULTURE IN SOUTHERN MINAS GERAIS, BRAZIL**Carlos Alberto Máximo Pimenta**

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Abstract

Purpose | The objective is to identify elements of culture with the potential to drive local development through what we call the 'knowledge economy.' This involves a series of studies in the Serra da Mantiqueira region, in the south of the state of Minas Gerais (Brazil), which describe the experience of conducting knowledge research as an extension practice, using the descriptors Culture and Development. From this perspective, we seek convergence between local knowledge, the economy, labour, and technology applied to social demands to question conventional notions of sustainability and socio-productive organisation. The proposal emphasises the possibility of applying knowledge research valued by bringing knowledge closer to the economy to support development policies through elements of culture that involve ancestral, popular, and community knowledge, which have the capacity to promote other development platforms in the locality.

Methodology/Approach | From January 2022 to December 2025, a survey was conducted of actions and practices that have development potential based on the socio-cultural dynamics of the territory, identity, history, and culture. The data results from cultural production and job and income generation activities carried out by the departments of Culture, Tourism, and Social Development of the municipalities of Serra da Mantiqueira.

Expected Results | The emphasis placed on this highlights the importance of identifying local knowledge as a powerful cultural element available in the territory, but 'ignored' in development planning and policies for generating income in the region. Cultural elements are translated into the heritage sphere (natural: mountains, peaks, rocks, rivers, waterfalls, etc.; material: roads, buildings, monuments, churches, circuits, etc.; immaterial: how to make cheese, delicacies, cachaças, etc.; and symbolic: festivals, prose, religiosity, devotions, tales, lifestyle, local social representations, customs, etc.) and defined within the logic of capital versus labour or economic growth. This perspective does not understand the reality of the place, which requires the urgency of other inputs for the planning of tourism activities, tourists, development policies, and sustainability, based on an economy that privileges local knowledge.

Keywords | Economics of Knowledge, Local Development, Territory, Southern Minas Gerais, Income Generation.

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REPORTS ON THE UNIVERSITY'S ACTION WITH THE COMMUNITY: ISSUES OF DEVELOPMENT IN THE SOUTHERN REGION OF MINAS GERAIS, BRAZIL

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Abstract

Purpose | This report describes the experience of researchers in implementing a project to generate knowledge combined with intervention practices in the community of municipalities in the southern region of the state of Minas Gerais (Brazil), with the aim of aligning with SDGs 8 (Decent Work and Economic Growth), 10 (Reduced Inequalities), and 11 (Sustainable Cities and Communities). The following postgraduate programmes participated in the activities: Development, Technologies and Society, Professional Master's in Water Engineering and Professional Master's in Administration, with the following lines of action: (a) science and technology in technological education: popular knowledge and practices, (b) innovation and technologies in the field of cultural economics: research and implementation of employment and income generation in the Mantiqueira Territory; (c) Água Viva; (d) financial education in schools and (e) affirmative action for people with disabilities: girls with disabilities in science. In convergence, the proposals enable other platforms for promoting development at the local and regional levels.

Methodology/Approach | The proposal begins in February 2024, with the participation of local development agents, both public and private, in activities, actions and practices, namely: Caminhos da Mantiqueira Tourist Circuit; Fénix de São Lourenço Foundation; Mulheres Bordando Minas/Eco Mulheres Reciclagem Group; the Rural Community of Peroba and the neighbourhoods of Pedra and Colônia; small companies manufacturing industrial safety products (PPE); small producers of 'Minas cheese'; artisanal producers of cachaça; beekeepers; the Superintendence of Education; benzedeiros, mateiras and erveiras, in municipalities in the Microregion of Itajubá-MG. The data is collected in the field and used to develop actions, always based on the demands of the agents, respecting the technical skills and knowledge of the University.

Expected Results | The activities carried out promoted participatory methodologies and interdisciplinary strategies for addressing the problems raised, without losing sight of the following reference points: focus on sustainable and sustained development; proposals for horizontal decision-making; proposals for social interventions based on the interests of the urban and rural communities involved, beyond the boundaries of the University; contribution to the training, organisation and identification of local development agents; strategies for generating income based on elements of local culture. The meetings, workshops, and field research involved important agents in imagining other forms of development based on public schools, rural and traditional communities, family farmers, artisans, small businesses, etc.

Keywords | University, Community, Regional Development, Southern Minas Gerais, Income Generation.

Acknowledgments | Coordination for the Improvement of Higher Education Personnel (CAPES), for funding the project UNIFEI and Community: Graduate Studies as a driving force for practical actions in community innovation, sustainability, and inclusion, through the Graduate University Extension Program – PROEXTPG, Joint Notice No. 3/2024, Process No. 88881.927469/2023-01, and the Federal University of Itajubá for Notice No. 09/2025 DRI - Support for Faculty Mobility for Internationalization, Process NUP No. 23088.027495/2025-63.

STIGMATIZED AGRI-PRODUCTS AND TERRITORIAL INTEGRATION: A MULTI-LEVEL ANALYTICAL APPROACH

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Purpose | Sustainable agribusiness sectors do not integrate into territories solely because they are environmentally viable or economically promising. Across regions, certain agri-products remain marginal, contested, or unevenly embedded despite favourable technical and market conditions. This paper argues that symbolic and institutional dynamics function as critical drivers of territorial integration alongside economic and technological factors. It articulates a multi-level analytical approach to examine how agri-products become territorially embedded or remain structurally constrained. The approach connects three interrelated domains: (1) the symbolic domain, where shared meanings, narratives, and cultural classifications shape legitimacy; (2) the institutional domain, where regulatory definitions, governance arrangements, and administrative routines structure participation; and (3) the sectoral domain, where farmers, firms, and intermediaries navigate market positioning, reputation, and access to resources. Together, these domains influence who participates, under what conditions, and how benefits are spatially distributed across territories.

Methodology/Approach | The analytical structure is informed by an integrative review of 32 studies on industrial hemp and medical cannabis, two sectors that illustrate how historical classification, regulatory exceptionalism, and contested legitimacy shape agribusiness development. Although both crops present recognised environmental and economic potential, their territorial integration remains uneven. Cultural narratives inherited from prohibition regimes influence public perception and investment climates. Regulatory thresholds and compliance systems shape entry barriers and sector consolidation. At the sectoral level, legitimacy-building and risk management practices further condition regional participation patterns.

Expected Results | Conceptualising stigma as a structuring condition embedded in symbolic meaning and institutional design expands the understanding of drivers of sustainable agribusiness beyond conventional economic metrics. This perspective highlights how recognition, governance, and cultural acceptance influence territorial cohesion, equity of access, and balanced regional development. The multi-level analytical approach offers a transferable lens for examining other emerging or contested agri-products whose integration depends not only on market viability but also on processes of social validation and institutional stabilisation. In doing so, it contributes to debates on sustainable agribusiness by foregrounding the socio-institutional mechanisms that shape territorial inclusion and development trajectories.

Keywords | Sustainable agribusiness, Territorial integration, Institutional dynamics, Industrial hemp, Medical cannabis, Legitimacy, Socio-institutional mechanisms.

THE SUSTAINABLE DEVELOPMENT GOALS (SDGS) AS A TOOL FOR TRANSLATING THE LOCAL DEMANDS OF A SMALL TOURIST MUNICIPALITY IN BRAZIL

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Abstract

Purpose | The 2030 Agenda aims to promote sustainable development, and each signatory country must develop its own indicators and monitoring systems based on the 17 Sustainable Development Goals (SDGs) and 169 targets, according to its context and data availability. However, in small municipalities and communities, we argue that the SDGs can contribute beyond a set of targets monitored by indicators. They disseminate a diversity of themes that are fundamental to stimulating local debate on their priorities. The breadth of the SDGs makes it possible to identify demands that have not yet been addressed locally and/or to translate demands that have already been presented into a common language, broadening the local agenda.

Methodology/Approach | The research is being conducted in the tourist municipality of São Bento do Sapucaí (São Paulo, Brazil). Local demands were identified through observations made between November 2024 and August 2025 in various local councils, considering them as spaces for collaboration. Notably, the following local councils were observed: the Municipal Tourism Council (COMTUR), the Municipal Public Services Council (COMUSP), the Municipal Women's Rights Council (CMDM), and the Municipal Social Assistance Council (CMAS). Notes on job creation, income, and decent living conditions were recorded in a field notebook and analysed considering the SDGs.

Expected Results | The recurring demand for employment, when translated in light of the SDGs, especially target 8.5 on: “[...] achieving full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value” (UN Brazil, n.d.), becomes a more complex and richer demand for proposals to improve living conditions, as it highlights issues of equality/inequality and invisible groups. Public policies for job and income generation that cover young people, persons with disabilities, and women, for example, not only address the main demand but also help to reduce violence against women, prevent substance abuse by young people, and strengthen the economic autonomy of families, producing positive impacts in various areas of social life. The use of SDGs has made it possible to identify suppressed needs (work for vulnerable groups, full employment, wage equity, decent work, etc.), which can foster the development of local public policies from the bottom up.

Keywords | Localisation, collaboration, public policies, small municipalities, tourism.

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VELOCIDADE DE INTERNACIONALIZAÇÃO E DESEMPENHO INTERNACIONAL: UMA ANÁLISE AO EFEITO MEDIADOR DAS ATIVIDADES RELACIONADAS COM OS OBJETIVOS DE DESENVOLVIMENTO SUSTENTÁVEL

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Resumo

Objetivo | A crescente pressão para que as empresas alinhem as suas estratégias de internacionalização com princípios de sustentabilidade tem reforçado a relevância dos Objetivos de Desenvolvimento Sustentável (ODS) no contexto dos negócios internacionais. Para além do desempenho internacional, as empresas sentem-se cada vez mais pressionadas para integrar objetivos sociais, ambientais e económicos nas suas operações. Neste contexto, este estudo analisa a relação entre a velocidade de internacionalização e o desempenho internacional das empresas, explorando o papel mediador das atividades relacionadas com os ODS. Procura-se, assim, contribuir para a literatura de negócios internacionais, alargando a compreensão dos processos de internacionalização através da integração de estratégias fora do mercado associadas à sustentabilidade. Para além disso, o estudo oferecerá implicações práticas para gestores, ao evidenciar o papel das atividades relacionadas com os ODS enquanto mecanismo potenciador do desempenho internacional.

Metodologia/Abordagem | O estudo adota uma metodologia quantitativa, recorrendo a um inquérito por questionário aplicado a empresas da indústria transformadora portuguesa. Após um pré-teste realizado com empresas e académicos, o instrumento de recolha de dados foi revisto e validado. A amostra foi selecionada através do Sistema de Análise de Balanços Ibéricos (SABI). Foram incluídas empresas ativas, constituídas entre 2010–2020 e com grau de internacionalização (DOI) igual ou superior a 25% no intervalo temporal 2022–2024. No total, o questionário foi enviado a 1338 empresas, encontrando-se a recolha de dados em curso desde outubro de 2025.

Resultados Esperados | Em primeiro lugar, espera-se a existência de uma relação positiva entre a velocidade de internacionalização e o desempenho internacional, sustentada nos benefícios associados à aprendizagem organizacional e ao acesso antecipado a oportunidades nos mercados externos (Chetty et al., 2014; Hutzschenreuter et al., 2011). Por outro lado, empresas que se internacionalizam mais rapidamente tenderão a apresentar maior envolvimento em atividades relacionadas com os ODS, em virtude da sua exposição a múltiplos contextos institucionais e do consequente desenvolvimento de capacidades organizacionais (Johanson & Vahlne, 2009; Banerjee et al., 2019). Por sua vez, o desenvolvimento de atividades alinhadas com os ODS deverá influenciar positivamente o desempenho internacional, na medida em que os benefícios associados, nomeadamente, ao nível da reputação, redução de risco, ganhos de produtividade e criação de novas oportunidades, tendem a superar os custos inerentes à sua implementação (Shen et al., 2024). Por fim, prevê-se que as atividades relacionadas com os ODS desempenhem um efeito moderador positivo na relação entre a velocidade de internacionalização e o desempenho internacional, ao reforçarem a legitimidade, a reputação e o alinhamento com exigências institucionais nos mercados externos (Goyal et al., 2013; Schramade, 2017; Van Tulder et al., 2021).

Palavras-chave | Velocidade de internacionalização, objetivos de desenvolvimento sustentável, desempenho internacional.

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AGRICULTURA BIOLÓGICA E SUSTENTABILIDADE ECONÓMICO-FINANCEIRA: BENCHMARKING EM ENTRE DOURO E MINHO E GALIZA (2014–2023)

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Resumo

Objetivo | O objetivo principal deste estudo consistiu na avaliação da sustentabilidade económico-financeira da agricultura biológica (AB) nas regiões de Entre Douro e Minho (EDM) e Galiza, respetivamente em Portugal e Espanha, no período 2014–2023, através de um exercício de benchmarking aplicado a indicadores ao nível da empresa agrícola.

Metodologia | O estudo assentou em literatura de referência sobre eficiência e viabilidade económica em agricultura, organização de mercados e cooperação setorial, que orientou a seleção de dezoito indicadores agrupados em quatro dimensões: eficiência operacional, estrutura e solvabilidade, sustentabilidade económico-financeira e sustentabilidade social. A análise económico-financeira incidiu em dezoito empresas certificadas em Modo de Produção Biológico, com atividade contínua entre 2014 e 2023, utilizando dados anuais provenientes da Informação Empresarial Simplificada (IES) e da base SABI (Informa D&B). Os valores foram harmonizados e deflacionados segundo índices oficiais, sendo analisados em duas perspetivas complementares: longitudinal (2014–2023) e transversal (médias 2014–2023 e 2021–2023). A síntese interpretativa recorreu a uma matriz SWOT inter-regional e intersetorial.

Resultados | Uma leitura agregada da performance regional, através da média das quatro dimensões de sustentabilidade avaliadas, revela uma equivalência global entre as regiões do EDM e Galiza, sustentada por composições internas e estratégias distintas. A Galiza apresentou maior escala média e forte predominância da pecuária, refletindo-se em vendas e produtividade global do trabalho mais elevadas. O EDM destacou-se nos subsectores hortícola e vitivinícola, com margens mais favoráveis e rentabilidade líquida por trabalhador superior. Em ambas as regiões, observou-se um reforço da autonomia financeira das empresas agrícolas analisadas, traduzindo resiliência e estabilidade. Estes padrões são consistentes com as estratégias de diferenciação e organização coletiva identificadas na literatura.

Conclui-se que a sustentabilidade da AB depende não apenas da escala, mas também da especialização setorial, da eficiência organizacional e da estrutura de capital. Para o EDM, recomenda-se o reforço do associativismo, a modernização tecnológica e a valorização territorial — especialmente nos segmentos de hortícolas frescos e vinho verde. Na Galiza, a consolidação do setor pecuário deverá ser acompanhada por uma maior valorização local da produção e pela diversificação setorial, de forma a reforçar a resiliência económica e a sustentabilidade territorial. O futuro da AB no EDM e na Galiza dependerá, ainda, da capacidade de conciliar prosperidade económica com resiliência ambiental e social. As duas regiões tendem para uma consolidação da AB como um modelo de desenvolvimento rural sustentável, conciliando rentabilidade, inovação e preservação ecológica.

Palavras-chave | Agricultura Biológica; Benchmarking; Margens e Rentabilidade; Autonomia Financeira; Produtividade do Trabalho.

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VALUING MEDITERRANEAN RIPARIAN FORESTS: ECONOMIC VALUATION OF ECOSYSTEM SERVICES USING AVOIDED COST METHOD

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Abstract

Purpose | Riparian forests are a key landscape element for territorial connectivity and sustainability. In the recent decade growing concern has arisen due to its fragmentation. As the first quantitative synthesis of MRF's economic value, the selected research question is: "What is the economic value of MRF?". Thus, the aim of this work is to provide an estimated value for Mediterranean Riparian Forests (MRF) through Ecosystem Service (ES) economic valuation. With this valuation, this study seeks to provide relevant evidence to support restoration and conservation of MRFs.

Methodology/Approach | A structured bibliographic search was conducted in the Ecosystem Services Valuation Database (ESVD), filtering by wetland habitats, valuation method (avoided-cost) and selected wetland ES. From 1519 ESVD records, 13 studies (26 observations) met the eligibility criteria, which required: (i) avoided-cost valuation and (ii) riparian or wetland ES. Selected primary studies represent diverse geographic contexts for comparable riparian ES in dryland regions. Ranging from Equatorial wetlands to USA, and Europe, although primary studies originate from diverse global regions, the value transfer is based on shared ES identified for Mediterranean wetlands and riparian forests. All monetary values are standardized in Int\$/ha/year. A random-effects meta-analysis was performed in RStudio using the metafor package. Following log transformation, outlier removal based on standardized residuals, and visual inspection of funnel plots to assess publication bias and data asymmetry. Pooled estimates, confidence intervals, and heterogeneity metrics (τ^2 and I^2) were calculated globally and by ES. To explain variation in avoided-cost values, a meta-regression was conducted. Using habitat and ecosystem service as explanatory variables, selected through Akaike Information Criterion (AIC). The final model resulted in 72% of total heterogeneity, demonstrating strong explanatory power.

Expected Results | The meta-analysis revealed relevant heterogeneity across ES values. The highest valuations are associated with sediment storage, water quality, and soil erosion prevention services, characterized by continuous and cumulative functions. Services linked to episodic risks (such as floods) had lower values. The results showed an estimated value for MRF of approximately 32,7 thousand Int\$/ha/year. This valuation shows that MRFs provide key economic benefits. This evidence provides policy makers and stakeholders a reference for conservation and restoration actions of MRFs. Ecological and socio-economic conditions must be evaluated at larger scale in a primary study for project scale valuations, considering this as a value of reference. While the avoided-cost method may overestimate cost under worst case scenarios, the values presented here offer a realistic reference of the potential economic losses associated with full ecosystem degradation.

Keywords | Riparian Forest, Economic valuation, Avoided cost, Ecosystem services, Meta-regression.

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TRENDS IN E-COMMERCE LOGISTICS DEVELOPMENT VS CONSUMER DECISIONS: POLAND AND TURKEY – RECOGNITION AND USE OF E-COMMERCE PLATFORMS

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Abstract

Purpose | The primary purpose of this research is to identify the level of recognition and use of e-commerce platforms in Poland and Turkey and to analyze how logistics service components influence consumer spending. The study focuses on the structural concentration of the e-commerce market, examining the dominance of marketplace models and the impact of delivery preferences – such as automated parcel lockers in Poland versus direct courier services in Turkey – on consumer behavior.

Methodology/Approach | The study utilized a diagnostic survey method conducted between May and November 2025. Data was gathered from 575 respondents in Poland and 440 in Turkey. The research involved econometric modeling using the Gretl software to estimate the impact of 14 logistics variables (X1–X14) on consumer spending levels (Y1–Y4). Comparative analysis was performed using structure similarity indices to identify cross-national differences.

Expected Results | The research identifies high market concentration dominated by national champions: Allegro in Poland (29.9% share) and Trendyol in Turkey (35.2% share). In Poland, platform choice and spending are significantly driven by process simplicity (X1) and price perception (X4), supported by the widespread use of automated parcel lockers (46.6% preference). In contrast, the Turkish market is characterized by a "duopoly" (Trendyol and Hepsiburada), where spending is driven by time-saving (X3) and transaction security (X5), with a strong reliance on door-to-door courier delivery (49.5% preference). The study concludes that while platform recognition is high in both countries, the logistics drivers for consumer decisions are fundamentally different, necessitating localized logistics strategies.

Keywords | e-commerce platforms, marketplace recognition, consumer behavior, logistics service quality.

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THE ROLE OF INSTITUTIONAL QUALITY AND POLICY COORDINATION IN SHAPING SME INNOVATION IN PERIPHERAL EU ECONOMIES**Mariana José**

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Purpose | Innovation is a central driver of competitiveness and regional development in the European Union, yet significant disparities persist between central and peripheral economies, particularly in the performance of Small and Medium-Sized Enterprises (SMEs). While institutional quality and public policies are widely recognised as key determinants of innovation, they are often analysed in isolation, and their territorial variability remains insufficiently explored. This study examines how institutional quality and policy coordination jointly shape SME innovation across EU regions between 2005 and 2025, with a specific focus on understanding why peripheral economies consistently display weaker innovation outcomes.

Methodology/Approach | The research pursues four objectives: assessing the impact of institutional quality on SME innovation; evaluating how coordinated policy mixes influence innovation performance; comparing these effects between central and peripheral regions; and providing integrated empirical evidence to support territorially sensitive innovation strategies. To address these aims, the study adopts a quantitative, comparative approach using panel data econometric models and secondary indicators from Eurostat, WGI, OECD and EU institutional sources. SME innovation is operationalised using aggregated proxies at regional or national level, while institutional quality and policy coordination are captured through governance indicators and contextual variables. Interaction terms allow examination of complementarities between institutional conditions and policy coherence.

Expected Results | Expected results indicate that institutional quality strongly and positively affects SME innovation, and that effective coordination enhances these effects by reducing fragmentation and strengthening governance capacity. Peripheral regions are expected to exhibit greater dependence on both institutional stability and coordinated policy frameworks, reflecting structural vulnerabilities and lower absorptive capacity. These findings contribute to regional development debates by demonstrating that innovation policies must be coherent, well-aligned, and territorially differentiated. The study provides relevant insights for EU cohesion policy, highlighting the need to reinforce institutional capabilities and improve policy coordination to reduce territorial innovation gaps and foster more inclusive and sustainable development across European regions.

Keywords | SME innovation, Institutional quality, Policy coordination, Regional development, Peripheral economies, EU Cohesion Policy, Innovation policy.

QUANDO AS EMOÇÕES MOBILIZAM E QUANDO PARALISAM: A CONSCIÊNCIA AMBIENTAL GLOBAL COMO REGULADORA DO COMPORTAMENTO PRÓ-AMBIENTAL.

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Resumo

Objetivo geral | Apesar do crescente acesso à informação sobre mudanças climáticas, a literatura evidencia a persistência do knowledge-action gap, no qual maior conhecimento ambiental não necessariamente se traduz em comportamentos pró-ambientais (Liu et al., 2020; Xia & Li, 2022; Ma et al., 2023). Este estudo investiga os mecanismos psicológicos que explicam essa lacuna, propondo um modelo integrado no qual a familiaridade com mudanças climáticas influencia o comportamento pró-ambiental por meio de respostas emocionais, reguladas pela Global Environmental Mindfulness (GEM). Assim, o objetivo do estudo é analisar como emoções positivas e negativas mediam a relação entre familiaridade com mudanças climáticas e comportamento pró-ambiental, bem como o papel moderador da GEM nesse processo.

Metodologia | A análise empírica utiliza dados do PISA 2018, abrangendo aproximadamente 371.000 estudantes de 66 países. O modelo teórico será testado por meio de regressão com mediação moderada, utilizando o PROCESS Model 14 (Hayes), no qual a familiaridade com mudanças climáticas será tratada como variável independente, emoções positivas e negativas como mediadoras, comportamento pró-ambiental como variável dependente e GEM como moderadora do segundo estágio do processo. Essa abordagem permite examinar simultaneamente os efeitos mediadores das emoções e o papel regulatório da identidade ambiental global na conversão de estados afetivos em ação ambiental.

Resultados Esperados | Espera-se que os resultados confirmem que a familiaridade com mudanças climáticas não afeta diretamente o comportamento pró-ambiental, operando predominantemente por meio de mediação emocional. Em particular, prevê-se uma assimetria motivacional, na qual emoções positivas (como orgulho e esperança) funcionam como catalisadores do engajamento ambiental, enquanto emoções negativas (como medo ou tristeza) tendem a gerar respostas de evasão ou eco-paralisia quando não acompanhadas por estruturas normativas de significado (Kovács et al., 2024; Innocenti et al., 2023). Espera-se ainda que a Global Environmental Mindfulness desempenhe um papel regulatório central, amplificando os efeitos mobilizadores de emoções positivas e atenuando os efeitos inibidores de emoções negativas (Irawan et al., 2022; Doell et al., 2021). Ao integrar cognição, emoção e identidade normativa em um modelo de mediação moderada, o estudo contribui para avançar a compreensão da arquitetura psicológica do comportamento climático e oferece implicações relevantes para estratégias de comunicação, educação ambiental e formulação de políticas públicas voltadas ao engajamento sustentável dos jovens.

Palavras-chave | Familiaridade com as mudanças climáticas; Valência emocional; Identidade ambiental; Comunicação sobre o clima; Comportamento pró-ambiental.

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A MIRAGEM DO DESENVOLVIMENTO NACIONAL NO SUL GLOBAL: COMO A DESIGUALDADE REGIONAL CONDICIONA A VULNERABILIDADE CLIMÁTICA EM ESTADOS FORTES**Felipe Roberto da Silva**

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Resumo

Objetivo geral | A literatura dominante frequentemente assume uma relação linear entre desenvolvimento e resiliência, sugerindo que aumentos na renda per capita e no Índice de Desenvolvimento Humano (IDH) ampliariam automaticamente a capacidade adaptativa das sociedades (Wu et al., 2018; Sarkodie & Adams, 2020). Sob essa perspectiva, o crescimento econômico tende a ser interpretado como uma espécie de “vacina” contra riscos ambientais. Contudo, evidências recentes indicam que indicadores nacionais agregados podem mascarar profundas heterogeneidades territoriais e lacunas de implementação que limitam a efetividade das políticas de adaptação (Islam, 2022; Zhang et al., 2023). Diante desse paradoxo, este estudo investiga em que medida e sob quais condições o desenvolvimento nacional e regional se traduz em menor vulnerabilidade climática no Sul Global.

Metodologia | O estudo utiliza modelagem linear multinível aplicada a uma base de dados harmonizada do Global Data Lab composta por 1.289 unidades regionais distribuídas em 97 países. Essa abordagem permite capturar simultaneamente efeitos nacionais e regionais, bem como interações cross-level entre capacidades institucionais estruturais e desigualdades territoriais. O modelo estima a contribuição relativa de fatores institucionais nacionais – como desenvolvimento humano – e de variáveis regionais associadas à estrutura distributiva e às condições socioeconômicas locais.

Resultados Esperados | Espera-se demonstrar que a vulnerabilidade climática é simultaneamente nacionalmente ancorada e regionalmente determinada. Embora capacidades institucionais nacionais definam o baseline de proteção, desigualdades territoriais atuam como um “filtro institucional” que condiciona a conversão do desenvolvimento em resiliência efetiva (Birkmann et al., 2021). Em contextos de elevada desigualdade regional, aumentos na renda ou no desenvolvimento humano tendem a produzir retornos decrescentes em termos de redução da vulnerabilidade, criando “teto de vidro” institucionais e armadilhas de subfinanciamento para regiões mais frágeis (Islam, 2022). Assim, o estudo contribui para desconstruir a “miragem do desenvolvimento nacional”, evidenciando que a resiliência climática depende não apenas do volume de recursos disponíveis, mas da arquitetura institucional distributiva que organiza sua implementação territorial.

Palavras-chave | Mudanças Climáticas, Análise Multinível, Sul Global, Países em Desenvolvimento.

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SECURITY AND SUSTAINABILITY IN TOURISM: A BIBLIOMETRIC AND CONTENT ANALYSIS

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Abstract

Purpose | The increasing exposure of tourism systems to global risks, such as geopolitical instability, climate change, environmental degradation, and public health crises, has reinforced the importance of security as a fundamental dimension of sustainable tourism development. In recent years, the relationship between security, tourism and sustainability has attracted growing attention in academic research (Amaro et al., 2023), reflecting the need to understand how safe, resilient, and well-governed destinations contribute to the long-term sustainability of tourism systems (Ko & Song, 2021; Rahaman et al., 2025). This study aims to examine the scientific literature addressing the intersection between security, tourism, and sustainability through a bibliometric and content analysis of publications indexed in the Web of Science (WoS) and Scopus databases. The main purpose is to identify both the predominant themes and further research opportunities for this topic.

Methodology/Approach | A systematic search strategy was applied using the keywords “security”, “tourism”, and “sustainability”, with consideration of their occurrence in titles, abstracts, and keywords. The resulting dataset, comprising 177 peer-reviewed journal articles, serves as the basis for the analysis.

The bibliometric component focuses on mapping the structure and evolution of the research field, including publication dynamics, the most productive journals, authors, and institutions, as well as patterns of citation and scientific collaboration. In parallel, a content analysis is conducted to explore how the relationship between tourism security and sustainability has been conceptualised in the literature, identifying the main thematic orientations and analytical perspectives adopted by researchers.

By combining bibliometric techniques with qualitative content analysis, the study seeks to provide a systematic overview of the academic debate surrounding tourism security and sustainability.

Expected Results | Understanding how these concepts are articulated in the scientific literature is particularly relevant in contexts where tourism destinations are increasingly required to strengthen their capacity to manage risks, crises, and environmental challenges while pursuing sustainable development goals (Becken & Hughey, 2013; Jayaprakasha et al., 2024).

The study contributes to clarifying how the relationship between security and sustainability has been conceptualized within tourism research. Also, it aims to support future interdisciplinary research agendas focused on resilience, risk management, and sustainable destination governance.

Keywords | Risk Management, Security, Sustainability, Systematic Literature Review, Tourism.

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SUSTAINABLE FISCAL GOVERNANCE: GREEN TAXATION, CORPORATE LITERACY AND URBAN DEVELOPMENT

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Abstract

Purpose | Sustainable fiscal governance is emerging as a strategic tool for urban development, linking urban planning, management, regeneration, and renewal with green tax mechanisms. Against the backdrop of accelerating climate change, European cities must align their local fiscal policies with the Sustainable Development Goals (SDGs) of the 2030 Agenda and the decarbonization targets of the European Green Deal. This paper analyses how knowledge of environmental taxation and integrating green taxation into companies' Environmental, Social and Governance (ESG) strategies can strengthen the fiscal capacity required to finance green, equitable, and inclusive urban policies. The conceptual framework positions green taxation as a new paradigm of corporate responsibility that goes beyond mere revenue collection to take on regulatory, incentivizing, and redistributive functions. It discusses the role of environmental taxation as a governance mechanism that internalizes negative environmental externalities, promotes sustainable behavior, and finances investments in green infrastructure, sustainable mobility, and inclusive public spaces. This contributes decisively to the quality of urban life. Examples include taxes on local carbon emissions, levies on the consumption of non-renewable resources, and tax incentives for the energy-efficient rehabilitation of buildings.

Methodology/Approach | The adopted methodology combines a comparative analysis of green taxation instruments implemented in European cities, such as Lisbon, Copenhagen, Stockholm, and Barcelona, with case studies of municipal practices in sustainable fiscal governance. The alignment of quantitative and qualitative indicators with the SDGs (specifically SDG 11: Sustainable Cities and Communities), local carbon neutrality agendas, and principles of tax justice is assessed.

Expected Results | The preliminary results highlight three models of sustainable fiscal governance that can be replicated i) integrating local environmental taxes with green participatory budgeting and integrated urban planning; ii) creating environmental fiscal literacy frameworks for business decision-makers and local councilors to promote strategic alignment between the private sector and local authorities; iii) developing normative guidelines for local tax policies that reconcile economic efficiency, social equity, and climate ambition. This paper proposes a green taxation training program adapted to the Portuguese context, with potential application in Portuguese municipalities. This paper contributes to academic and practical debates on sustainable fiscal governance by offering cities aiming to lead the ecological transition through innovative and responsible tax policies, conceptual and operational tools.

Keywords | Sustainable fiscal governance, Environmental taxation, Urban policy, Sustainability, Sustainable cities.

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SUSTAINABILITY-DRIVEN INNOVATION AND FIRM PERFORMANCE IN THE PORTUGUESE BLUE ECONOMY**Jennifer Elston**

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Abstract

Purpose | This study examines how sustainability practices influence innovation processes and how, in turn, innovation affects firm-level performance within the Portuguese Blue Economy. While sustainability and innovation have often been analyzed independently, their interaction at the firm level remains insufficiently understood, particularly in ocean-based industries characterised by ecological constraints and institutional complexity. The study aims to assess whether sustainability acts as a driver of innovation and how innovation mediates economic, environmental, and social outcomes, in line with the Triple Bottom Line framework.

Methodology/Approach | The study adopts a quantitative research design based on primary data collected through a survey administered to Portuguese firms operating in Blue Economy sectors. The analytical framework is grounded in sustainability-oriented innovation and institutional theory. Data are analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), enabling the examination of relationships between sustainability practices, innovation capacity, and multidimensional firm performance. The model assesses both direct and mediating effects, allowing for an integrated analysis of how sustainability-driven strategies translate into measurable outcomes.

Expected Results | The study demonstrates that sustainability practices act as a significant driver of innovation within firms, reinforcing the view that sustainability is not merely a compliance requirement but a strategic catalyst. Furthermore, innovation mediates the relationship between sustainability and firm performance, enhancing economic, environmental, and social outcomes. These findings provide empirical support for the Triple Bottom Line framework and highlight the role of innovation as a key mechanism in sustainability transitions. The results also offer relevant implications for policymakers and stakeholders, suggesting that strengthening innovation capabilities is essential to support sustainable development in regional Blue Economy ecosystems.

Keywords | Blue Economy, Sustainability, Innovation, PLS-SEM, Triple Bottom Line.

A MULTIDIMENSIONAL FRAMEWORK FOR ASSESSING HUMAN–FOREST COUPLING SUSTAINABILITY UNDER CLIMATE STABILITY

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Abstract

Purpose | In the pursuit of global sustainable development goals and enhanced interregional synergy, human–forest interactions constitute a fundamental pillar of livelihood resilience for nearly one-quarter of the world’s forest-dependent populations. However, within the context of regional governance and balanced development, these interactions cannot be adequately described by simple linear relationships; rather, they represent complex socio-ecological systems shaped by multiple environmental stressors. Current governance frameworks face two critical challenges. First, although global forest cover exhibits dynamic fluctuations, the underlying evolution of forest quality and its associated socio-ecological feedback mechanisms remain insufficiently understood. Second, there is a lack of a systematic, global-scale perspective on how climate variability, as a dynamic perturbation, alters the sensitivity of human activities to forest dynamics. These knowledge gaps hinder the identification of priority governance areas characterized by high vulnerability and low resilience, thereby exacerbating interregional inequalities. This study addresses these challenges by investigating how climate stability modulates human–forest coupling mechanisms, with the aim of supporting more balanced and equitable development pathways.

Methodology/Approach | To quantify these complex interactions, we developed a multidimensional assessment framework for global forest quality evolution, incorporating long-term spatiotemporal data from 2001 to 2020. First, global forests were classified into four representative human–forest interaction scenarios, including ecologically improving and typically degraded systems based on the joint trajectories of forest quality dynamics and human footprint intensity, thereby capturing systemic heterogeneity across regions. Next, partial correlation analysis was employed to quantify the sensitivity of human–forest relationships by examining the associations between human activity indices and forest quality indicators. This was complemented by a machine learning–based attribution analysis to evaluate the marginal contributions of key

driving factors. Furthermore, a structural equation modeling (SEM) framework was constructed to disentangle the pathways through which climate stability—defined as the inverse of interannual variability in temperature, radiation, and moisture—regulates both human activity intensity and environmental productivity, ultimately shaping the coupled dynamics of human–forest systems. This integrative, multi-level analytical approach provides a robust basis for identifying response thresholds of socio-ecological systems under varying environmental pressures.

Expected Results | Our results reveal pronounced global patterns in the evolution of human–forest interactions under the regulation of climate stability. Approximately 77.74% of global forests exhibited declining quality over the study period, with marked spatial asymmetry. Among the four interaction scenarios, ecologically improving regions, although limited in spatial extent, demonstrated significantly higher human–forest coupling sensitivity compared to other regions. This suggests that such areas are highly responsive to policy interventions and management practices, yet simultaneously more vulnerable to external disturbances. Regarding the dual regulatory effects of climate stability, increased thermal stability generally enhances the synergistic functioning of human–forest systems and contributes to more stable ecosystem service provision. In contrast, excessive stability in radiation, vapor pressure deficit, and drought conditions may dampen system sensitivity, potentially reducing the adaptive capacity of socio-ecological systems to abrupt environmental shocks. As environmental conditions evolve, the dominant drivers of system dynamics shift from externally driven climate forcing to internally mediated socio-ecological feedbacks, providing a mechanistic explanation for spatial differences in vulnerability to climate perturbations (Figure 1).

Overall, this study highlights the pivotal role of climate stability in shaping the evolution of global human–forest relationships. It demonstrates that forest quality degradation exhibits significant spatial heterogeneity and that the strength of human–forest coupling is strongly modulated by climate variability patterns. By identifying regions of heightened sensitivity and quantifying regulatory thresholds of climate stability, our findings underscore the increasing importance of internal feedback mechanisms in determining system responses to environmental change. These insights advance the theoretical understanding of complex socio-ecological systems and offer critical empirical evidence for addressing regional inequalities, identifying vulnerable areas, and informing more equitable and effective forest governance strategies at the global scale.

Keywords | Human–forest interactions, Forest quality, Climate stability, Socio-ecological systems, Regional governance, Livelihood resilience, Machine learning, Structural equation modeling (SEM).

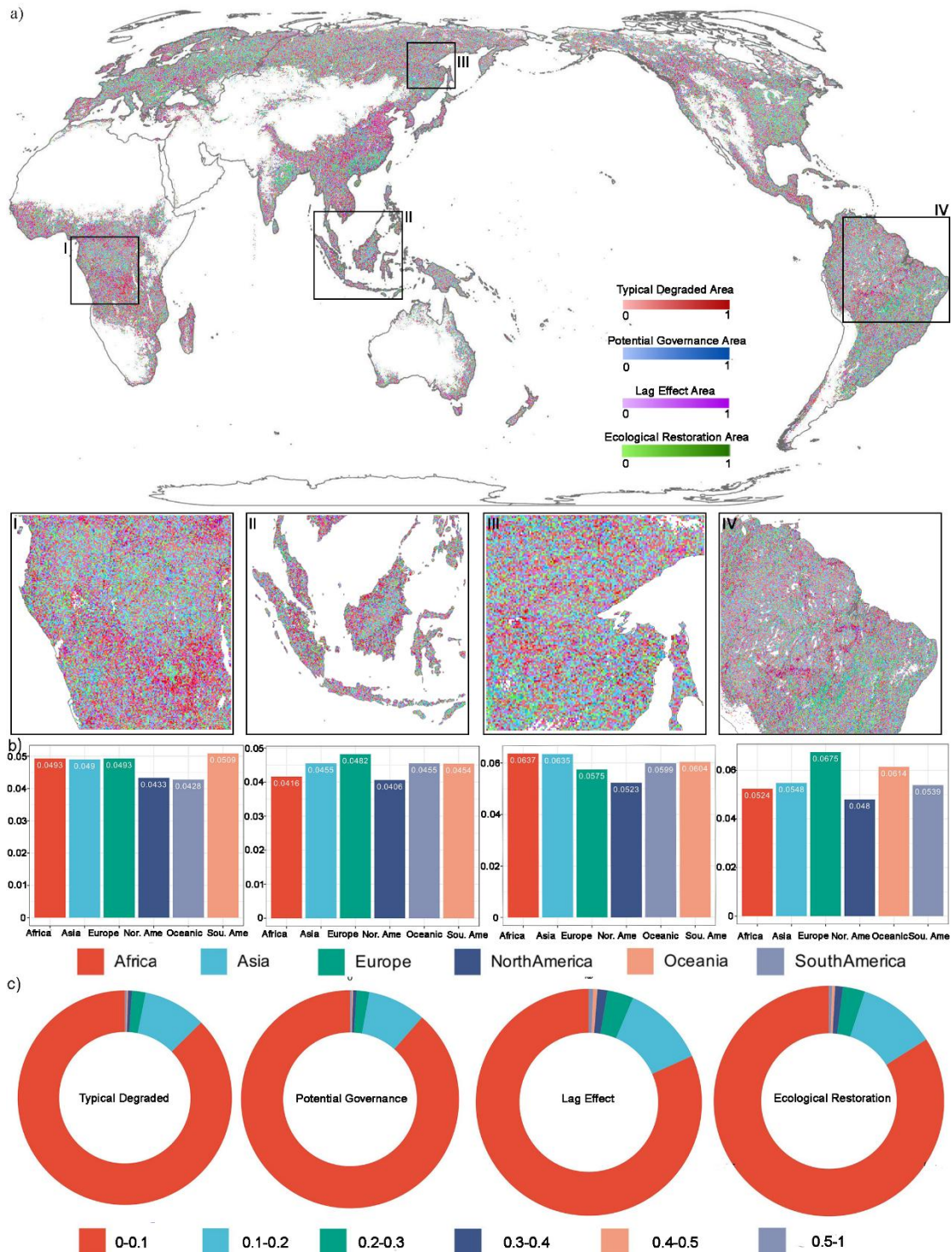


Figure 1: Sensitivity relationships between global human activities and changes in forest quality. **(a)** Global sensitivity relationships between human activities and forests. This includes typical degraded areas, areas with potential management effects, and areas exhibiting lag effects, natural disturbances, or ecological improvements. Additionally, to ensure image clarity, we mapped the sensitivity of human-forest relationships using a 10 km × 10 km spatial resolution. **(b)** Bar chart showing the continental distribution of human activity and forest sensitivity scores. **(c)** Donut chart showing the numerical grouping of human activity and forest sensitivity scores.

SYNERGIES WITHIN AND POTENTIAL BARRIERS TO GLOBAL FOREST SUSTAINABLE DEVELOPMENT

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Abstract

Purpose | Amid growing environmental pressures and the global push toward the Sustainable Development Goals (SDGs), forest sustainability has become a key issue linking ecological conservation with socio-economic development. Yet global patterns of forest sustainability, the coordination between ecological and socio-economic subsystems, and the factors shaping these dynamics remain insufficiently understood. This study develops a Forest Sustainability Index (FSI) integrating natural-ecological and socio-economic dimensions to assess forest sustainability across 73 countries in 2010, 2015, and 2020.

Methodology/Approach | The analysis is based primarily on FAO Forest Resources Assessment data, supplemented by remote sensing indicators such as NDVI, LAI, and NPP to improve comparability across countries. Seventeen indicators were selected to construct the FSI, covering both natural-ecological and socio-economic dimensions. The entropy weight method was used to calculate the index, while Getis-Ord G_i^* identified hotspots and coldspots, a coupling coordination degree model evaluated interactions between subsystems, an obstacle diagnosis model detected limiting factors, and Mantel tests and multiple linear regression were applied to examine the main drivers.

Expected Results | Results show a modest overall improvement in forest sustainability during 2010–2020. The average FSI increased from 0.187 in 2010 to 0.191 in 2020, and 79.6% of the countries recorded higher FSI values in 2020 than in 2010. Spatially, clear regional disparities were observed. Hotspots were mainly concentrated in South America and parts of Southeast Asia, with Argentina and Chile remaining stable high-value areas. In contrast, Northern Africa and parts of Eastern Europe persisted as coldspots with relatively low FSI levels. By 2020, Indonesia and Papua New Guinea had emerged as new hotspot countries, while some African countries such as Mauritania and Kenya moved out of coldspot status.

Coordination analysis indicates that regions with higher forest sustainability also exhibited stronger coordination between ecological and socio-economic subsystems. The average coupling coordination degree was 0.31 in hotspot regions, compared with 0.24 in coldspot regions, suggesting that low-performing areas are more likely to experience imbalance between the two subsystems. Obstacle analysis identified several recurring constraints, especially forest stock, forest area in protected areas, forest area targeted for biodiversity conservation, other forested land, introduced tree species, and forest area targeted for production. Among these, limited forest stock and introduced tree species were among the most important barriers to coordinated development.

Driver analysis further shows that natural factors played a more consistent role than anthropogenic factors. Mantel tests revealed significant associations between natural drivers and FSI indicators across all three years. Multiple regression identified forest-related carbon emissions and mean annual precipitation as the most stable and significant drivers of FSI. Forest-related carbon emissions had a significant negative effect, whereas precipitation showed a consistent positive effect. GDP per capita showed a positive effect only in 2015, indicating that human-related drivers were less stable at the global scale.

Overall, the study provides a cross-national framework for evaluating forest sustainability and shows that, although global forest sustainability improved slightly from 2010 to 2020, substantial regional disparities remain. Natural factors, especially precipitation and forest-related emissions, played a central role in shaping forest sustainability. These findings provide empirical support for region-specific forest governance and adaptive management under SDG 15.2.

Keywords | Forest Sustainability Index (FSI), SDG 15.2, Coupling coordination degree, Spatial disparities, Forest governance, Natural-ecological dimensions, Obstacle diagnosis model.

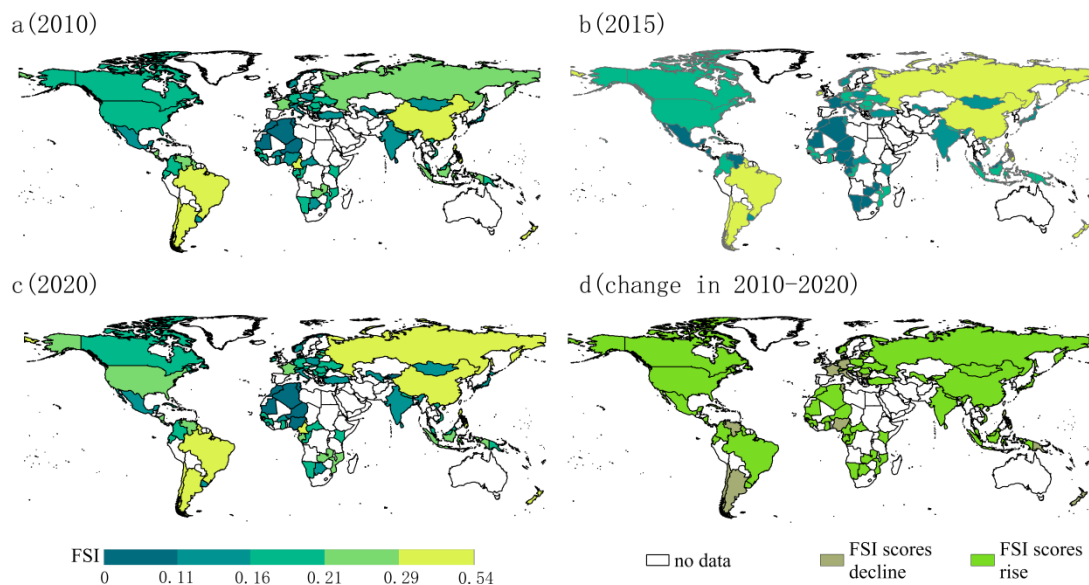
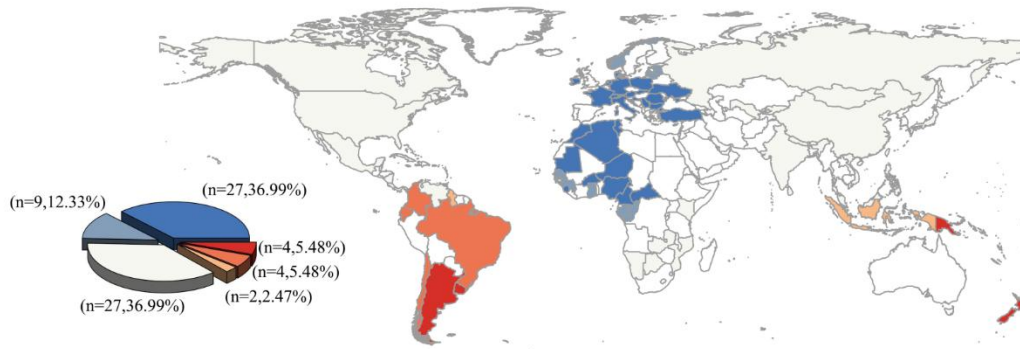
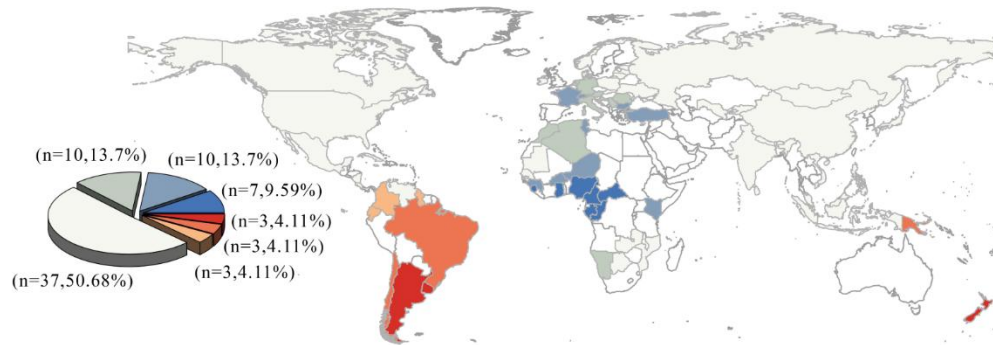


Figure 1. panels a-c presents the composite scores of the global FSI for 73 countries in 2010, 2015, and 2020, respectively. Panel d illustrates the change in FSI between 2010 and 2020. To ensure consistency in classification across the three time points, we applied the mean values derived from the natural break points method as a uniform grading standard. Based on this method, FSI scores were categorized into five classes: very poor forest sustainability ($0 \leq \text{FSI} \leq 0.11$), poor forest sustainability ($0.11 < \text{FSI} \leq 0.16$), fair forest sustainability ($0.16 < \text{FSI} \leq 0.21$), good forest sustainability ($0.21 < \text{FSI} \leq 0.29$), and very good forest sustainability ($0.29 < \text{FSI} \leq 0.54$).

a) 2010



b) 2015



c) 2020

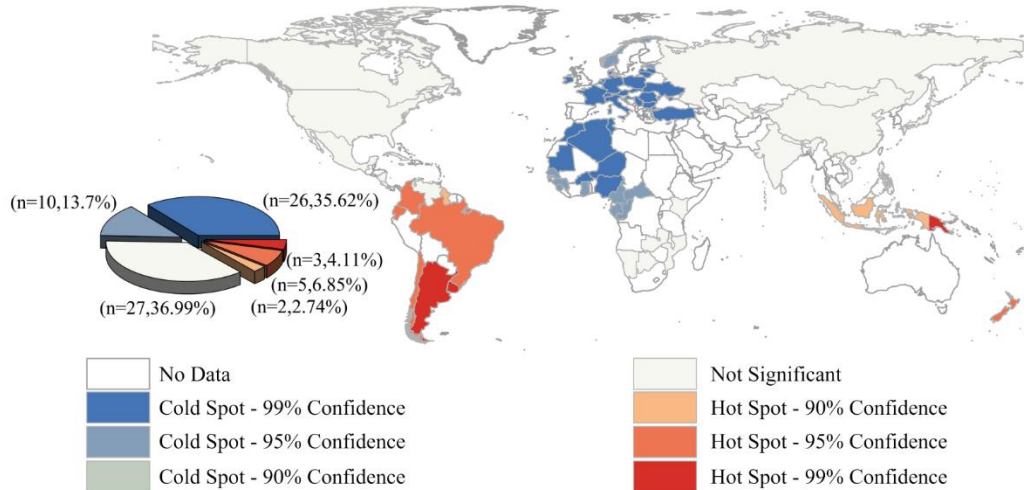


Figure 2. Panels a-c shows the global distribution of cold and hot spots in the FSI for 2010, 2015, and 2020, respectively. The accompanying pie charts illustrate the proportion of countries falling within each of the seven statistical confidence intervals, with n indicating the number of countries represented in each interval. The color scheme of the pie charts corresponds directly to the legend used for the hotspot map confidence intervals.

WORK VALUES AND EMPLOYER PREFERENCES AMONG FINAL-YEAR STUDENTS: A CROSS-REGIONAL COMPARISON BETWEEN PORTUGAL AND THE NETHERLANDS

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Abstract

Purpose | Graduate retention is a persistent challenge in peripheral regions, where perceived structural inequalities drive young adults to leave for urban centres in pursuit of better opportunities and career advancement (de Boer, 2026; Yu, 2023). This is problematic as this outmigration deprives peripheral regions of valuable human capital that contributes to the long-term viability of these regions (Kitagawa et al., 2022). A key moment in this dynamic is the higher education-to-work transition, during which work values and job preferences play an essential role in shaping career decision-making (Silva & Carvalho, 2021). Understanding what final-year students seek to gain from work and the kind of employment they aspire to is critical for informing regional labour market and talent retention strategies. Therefore, this study examines the work values and job preferences of final-year Business and Technology students from a European cross-regional perspective to identify the factors that drive their early career choices.

Methodology/Approach | This study employs a cross-regional comparative design, combining an adjusted quantitative survey measuring work values (Maloni et al., 2019) and job preferences among final-year Bachelor and Master students (n= 613) with qualitative focus group discussions capturing the perspectives of regional employers in both countries. Linear and logistic regression and moderation analyses examine the relationship between work values, preferred employer type, demographic, and study characteristics.

Expected Results | The preliminary results show that work values significantly shape job preferences. Intrinsic motivation ranks as the most prominent composite work value overall, while notable cross-national differences emerge: Portuguese students score higher on extrinsic motivation and stability, whereas Dutch students place greater value on leisure. Gender is a consistent differentiator, with female students rating all dimensions more highly than males. Regression and mprobit models reveal that extrinsic motivation drives preferences for large/medium firms and metropolitan locations, while stability reduces the likelihood of seeking employment abroad or becoming self-employed. This suggests risk-averseness anchors graduates regionally. Leisure values appear to predict preferences for online and hybrid work. Domestic students show stronger preferences for local labour markets, whereas international students display greater spatial mobility, favouring metropolitan regions and opportunities abroad. Compared to business students, technology students scored significantly lower on extrinsic motivation and were notably more likely to prefer online and hybrid work arrangements. These findings carry implications for regional talent attraction and graduate retention strategies, particularly for SMEs, which constitute the majority of businesses in peripheral regions and must compete with larger urban employers for graduate talent.

Keywords | Work values, graduate retention, peripheral regions, SMEs, higher education-to-work transition.

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HOW TO PROMOTE TERRITORIAL COHESION IN A REGIONAL POLICY WORLD DOMINATED BY THE LOGIC OF INCREASING RETURNS?**António Figueiredo**

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Purpose | The paper begins by characterising the new context that is now operating in Portuguese territories. Due to the devastation provoked by rural fires of last years and the more recent severe climate events like Kristin depression, there is now in Portugal a resurgence of public opinion favouring territorial cohesion and calling for a more balanced pattern of public investment. These events created a vision of the mainland territory that is no longer limited to the old dichotomy between littoral areas versus interior and rural territories. The territorial vision is more complex and encompasses a mosaic model, in which depressed and vulnerable territories exist in more dense territories, combining bad spatial planning, high densities, and poverty, some of them located near the most developed littoral areas. Simultaneously, there is now evidence that the very high level of concentration of people and activities in the Lisbon metropolitan agglomeration presents severe shortcomings concerning housing, education, environment, and social issues. There is not enough existing capacity of organisation and coordination to tackle those problems, revealing a complex set of not solved problems in the most important human concentration of the country. In this context, it is understandable that the public opinion, principally represented by some think-tanks and journalists, is more aware of the need to promote a more balanced pattern of public investments, that could not be circumscribed to municipal investments.

Methodology/Approach | The paper explores this new context for the resurgence of territorial cohesion claims, which usually tended to be low and not generalised. However, in a country like Portugal in which regional policy is strongly dependent of EU funding, one cannot ignore that EU regional policy is now dominated by a logic of increasing returns. The change of paradigm has been generated by the increasing importance of innovation and competitiveness dimensions. As the endogenous growth theories show us, the increasing returns world usually determines that the more concentrated areas in terms of innovation and competitiveness assets tend to benefit more from EU support. The paper explores evidence about the implementation of regional smart specialisation strategies in Portuguese NUT II regions in PT2020 and PT2030 periods to demonstrate that more developed territories benefited more than territories lacking a critical mass of innovation resources (talent, firms, and institutions).

Expected Results | The last part of the paper discusses in depth how it would be possible to mitigate these unbalanced effects of increasing returns introduced by innovation and competitiveness policy instruments. Three domains of needed intervention will be discussed: i) the need to overcome the atomisation of local investments, through the creation of new institutional channels to create investment; ii) a new pattern of public investment targeted at developing absorption centres for innovation and competitiveness; iii) a proactive public policy to foster cooperation programmes between the more developed regions and less-developed territories, aiming to increase the local capacity of absorbing innovation support. With this structure and aim, the paper wants to intervene in the discussion of the new EU cohesion policy (or an alternative to it) to be implemented after the 2021-2027 programming period.

Keywords | Territorial cohesion, Public investment, Smart Specialisation (RIS3), Increasing returns, Regional disparities, EU Cohesion Policy, Portugal.

RESEARCH ON ACCOMMODATION TAXES IN TOURISM: A BIBLIOMETRIC AND CONTENT ANALYSIS APPROACH**Davide Ferreira**

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Abstract

Purpose | Growing tourism pressure in many destinations has led several local governments to introduce specific fiscal instruments targeting tourist accommodation, commonly referred to as accommodation, lodging, room, or hotel taxes. These taxes are typically justified by multiple policy objectives, including revenue generation, financing tourism-related infrastructure, and mitigating tourism externalities (Miranda et al., 2023; Ortega-Rodríguez et al., 2024). At the same time, tourism taxation has been widely discussed as a policy tool capable of influencing tourism demand, tourists' willingness to pay such taxes, destination competitiveness, and sustainable destination management (Durán-Román et al., 2021; Gökteş & Çetin, 2023; Rosselló-Nadal & Sard, 2026). Despite this growing relevance, research on accommodation taxes in tourism remains fragmented (Miranda et al., 2023; Özdemir-Güzel & Uzun-Kocamış, 2023).

Methodology/Approach | In this context, the present study aims to map and systematize the scientific literature on accommodation taxation in tourism through a bibliometric and content analysis. Data published between 1979 and 2025 were retrieved from the Web of Science (WoS) and Scopus, totaling 60 scientific documents. The study combines bibliometric techniques with qualitative content analysis. The bibliometric analysis aims to identify publication dynamics, collaboration patterns, and the intellectual structure of the field through indicators such as co-authorship and co-citation networks and keyword co-occurrence maps. Complementarily, a qualitative content analysis is conducted to explore the main thematic areas and methodological approaches addressed in these studies. The content analysis considers the research objectives, the types of taxes examined, the empirical contexts, the methods used, and the key findings reported in the literature.

Expected Results | The analysis is currently ongoing. The study is expected to provide a systematic overview of the development of research on accommodation taxes in tourism, identify emerging research themes, and highlight potential gaps in the literature. By structuring the existing body of knowledge, the study aims to contribute to a clearer understanding of the academic debate on tourism taxation and to support future research agendas in tourism economics and destination policy.

Keywords | Accommodation Taxes, Sustainable Destination, Systematic Literature Review, Tourism.

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O TURISMO COMO MOTOR DO DESENVOLVIMENTO REGIONAL SUSTENTÁVEL: UMA ANÁLISE BIBLIOMÉTRICA**Sónia Duarte Vieira**

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Objetivo | O setor do turismo tem-se afirmado como um importante instrumento de desenvolvimento regional, particularmente em territórios rurais, periféricos ou economicamente mais vulneráveis. Com o aumento da preocupação com a sustentabilidade, a forma como o turismo é analisado tem vindo a evoluir de forma significativa, passando de uma abordagem centrada no crescimento económico para uma perspetiva mais integrada, que considera simultaneamente as dimensões económica, social e ambiental. No âmbito da Agenda 2030, o turismo é frequentemente apontado como um instrumento relevante para a concretização de vários Objetivos de Desenvolvimento Sustentável, nomeadamente no que se refere ao crescimento económico, à coesão territorial e à sustentabilidade ambiental. Apesar do aumento significativo da produção científica sobre turismo e sustentabilidade, a literatura apresenta-se ainda dispersa e fragmentada, sendo relativamente reduzido o número de estudos que analisam o turismo como motor do desenvolvimento regional sustentável. Neste contexto, o presente estudo tem como objetivo analisar a evolução da investigação científica sobre a relação entre turismo, sustentabilidade e desenvolvimento regional.

Metodologia | O estudo baseia-se numa revisão bibliométrica da literatura científica, utilizando a base de dados Web of Science. A pesquisa foi realizada através da combinação de palavras-chave relacionadas com turismo, sustentabilidade e desenvolvimento regional. Os artigos selecionados foram analisados recorrendo a técnicas bibliométricas, incluindo análise descritiva, análise de palavras-chave e identificação de clusters temáticos, com o objetivo de mapear a evolução da produção científica, identificar as principais correntes de investigação e analisar as relações entre os conceitos em estudo.

Resultados Esperados | Espera-se identificar as principais tendências de investigação, os autores e revistas mais influentes, bem como as dimensões do desenvolvimento regional mais abordadas na literatura. Os resultados preliminares sugerem que a maioria dos estudos privilegia a dimensão económica, enquanto as dimensões social, ambiental e de governança territorial surgem com menor destaque. O estudo pretende contribuir para uma melhor compreensão do papel do turismo no desenvolvimento regional sustentável e identificar lacunas que possam orientar futuras investigações.

Palavras-chave | Turismo, Desenvolvimento regional, Sustentabilidade, Planeamento territorial, Análise bibliométrica.

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MACRO-CLUSTER READINESS IN PERIPHERAL AMAZONIAN TOURISM LIFE-CYCLE ASYMMETRY, DIGITAL MATURITY AND INTER-CLUSTER GOVERNANCE IN PASTAZA, ECUADOR

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Abstract

Purpose | Recent research has advanced sustainable tourism indicators, community-based tourism, tourism-firm coordination, evidence-informed policymaking and digital collaboration in destination management, but these conversations remain weakly integrated when the unit of analysis is a peripheral, multi-cantonal tourism system (Miller & Torres-Delgado, 2023; Krittayarungroj et al., 2023; Messori & Volo, 2025; Garcia et al., 2025; Zainal-Abidin et al., 2023). The gap is especially visible in nature-based destinations where subdestinations occupy different life-cycle stages and different levels of digital readiness. This paper addresses that doctoral-level gap by proposing a replicable secondary-data framework to assess whether several sub-destinations can realistically operate as a provincial tourism macro-cluster. The case is Pastaza, in the Ecuadorian Amazon.

Methodology/Approach | The study uses only secondary data generated by the NBT-ConnectingClusters project and complementary official planning documents. The evidence base combines: (i) the provincial target population of 301 tourism ventures (201 active and 100 potential); (ii) a digital-capabilities matrix for 91 ventures; (iii) cluster life-cycle and competitiveness reports for the four cantons; (iv) valuation reports for natural and cultural attractions; (v) cantonal primary databases for Santa Clara-Mera and Arajuno-Pastaza; and (vi) the 2025 baseline and ex-ante evaluation modules. Analytically, the paper builds a Macro-cluster Readiness Framework integrating three dimensions: cluster life-cycle position, digital transaction readiness, and inter-cluster governance/interoperability. These are synthesized into a Provincial Macro-cluster Readiness Index and interpreted through a cantonal role typology.

Expected Results | Preliminary evidence reveals strong territorial asymmetry. Pastaza functions as the provincial core, with business digital capabilities of 0.72, cluster maturity of 0.68, 42% digital commercialization, and 44 of 46 verified actors registered in MINTUR. Mera appears as an emerging connector node (0.60 digital capabilities; 0.56 cluster maturity), while Santa Clara (0.48; 0.44; 23% digital commercialization) and Arajuno (0.40; 0.38; 18%) remain peripheral despite strong community and nature-based assets. The system does not lack valuable attractions, Cavernas del Anzu in Mera and Balneario río Piatua in Santa Clara already reach international hierarchy but high digital visibility still coexists with low payment adoption, weak interoperability, uneven formalization and centralized coordination. Ex-ante modeling suggests that targeted interventions could raise online payments and e-commerce adoption by 18–34 percentage points.

Keywords | Tourism macro-clusters, digital maturity, nature-based tourism, governance, Amazonia.

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CONSUMER PREFERENCES AND BEHAVIOUR FOR SUSTAINABLE FOOD PRODUCTS: A BIBLIOMETRIC ANALYSIS

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Abstract

Purpose | Dietary patterns represent one of the main determinants that contribute to the degradation of the planet. Even though widespread awareness of the environmental consequences, consumers continue to adopt unsustainable behaviours (Dalin & Outhwaite, 2019; Joshi et al., 2021, 2025; Joshi & Rahman, 2019; Mbow et al., 2019; Willett et al., 2019; Joshi et al., 2021, 2025; Joshi & Rahman, 2019).

This research aims to provide a comprehensive bibliometric analysis of the literature on consumer preferences and behaviour toward sustainable food products and examines the impact of the published studies by investigating the main contributors (authors, journals, documents, and countries), the emerging topics and trends in the field, and, at the same time, it provides a network analysis.

Methodology/Approach | In order to analyse the literature landscape and provide a holistic understanding of the developments of the field, a bibliometric approach was performed using the Bibliometrix package and its Biblioshiny function in R (Aria & Cuccurullo, 2017). To obtain a representative database for the analysis, the search was performed using specific terms and Boolean operators. The literature search was carried out in January of 2026, in the Web of Science Core Collection using the “Topic” field and in Scopus using the “Article Title, Abstract, and Keywords” field. Subsequently, the records extracted from the two databases were merged.

Expected Results | The findings reveal that 3 978 documents were published between 1993 and 2025. Until 2010, the number of publications was limited and fluctuated greatly; however, since 2011, an expansion has been observed, underscoring the growing prominence of research in this field, with a notable uptick in interest in 2025, with 887 documents published. This research highlights key authors, documents and sources related to food products and sustainable consumption. The results suggest a solid commitment to scientific collaboration in the field, with international collaboration making a significant contribution. Italy, China, the United States of America, and Germany emerge as the countries that contribute most to research in terms of output volume. Regarding the keyword analysis, “sustainability” and “consumer behaviour” appear as central research themes in the field. Keywords related to “sustainable wine” were less common, which indicates a promising direction for future research.

Keywords | Consumer preferences; consumer behaviour; sustainability; food products; bibliometric analysis.

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CIRCULAR ECONOMY: SECONDARY RAW MATERIALS CONSUMPTION IN EUROPE

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Abstract

Purpose | This study provides a quantitative and necessary approach of the European Union Circular Economy Action Plan bridging the gap between the scientific and political spheres. Circular Economy (CE) measures and indicators are emergent topics and there is limited empirical research in this area. The original contribution of this study resides in identifying real determinants to explain material circularity in European countries. The aim of this analysis is to explore correlations amongst indicators of CE Action Plan. While being a recent and underexplored thematic, exploring EUROSTAT circularity indicators can reveal future pathways for CE transition. This data exploration presents opportunities for regional and industrial decision making. To guide this analysis the research questions are “What factors influence the consumption of secondary raw materials in European countries?” and “Do countries with higher GDP exhibit greater material circulation?”.

Methodology/Approach | A macro-level quantitative approach was adopted, using the public dataset of circular economy monitoring indicators provided by EUROSTAT downloaded via R package “eurostat”. To identify the most significant determinants of secondary raw material consumption across EU, correlation and multiple linear regression analyses were performed using RStudio. The selected indicators include “circular material use rate”, “resource productivity”, “packaging recycling rates”, and the “export of recyclable waste” as a strategic proxy for the secondary raw materials market.

Expected Results | Resource productivity emerged as primary determinant of secondary raw material consumption, where a one-unit increase represents approximately 5% growth in material circularity. This indicates that countries prioritizing resource efficiency tend to reduce raw material consumption and integrate circular economic flows. Packaging recycling rate is the second most significant variable, also displaying a positive relationship with secondary raw material consumption, highlighting the importance of effective waste management systems in supporting material circularity. Exports of recyclable waste show a negative correlation with secondary raw material consumption, suggesting that countries exporting higher volumes of recyclable waste tend to externalise these activities, thereby limiting internal circularity. This phenomenon is likely driven by a deficit of domestic industrial capacity, and policy frameworks. Developing regional infrastructure becomes critical to ensure that recyclable outputs are transformed into inputs, reducing the EU dependency on raw material imports. This paradigm presents a strategic opportunity for an EU secondary materials market. Countries that import higher volumes of waste can take advantage of this opportunity by investing in processing infrastructure and establishing new circular value chains. While the Netherlands, Belgium, Italy, France, and the Czech Republic exhibit circular material use rates above the EU 27 average, Finland, Portugal, and Greece present the lower values. The results further indicate that higher GDP is not a direct influential variable for circularity, emphasising the role of resource efficiency and implementation of recycling policies and frameworks are the primary catalysts for a circular transition. These results offer a vital contribution for regional policymakers highlighting that achieving a circular economy requires innovation, collaboration between EU countries, rethinking processes, new regulations and investments in infrastructure.

Keywords | Circular economy; EUROSTAT; Multiple linear regression; Secondary raw materials; Europe.

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A IMPORTÂNCIA DE CULTIVAR UM OLHAR CRÍTICO SOBRE O TERRITÓRIO

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Objetivo | Esta comunicação apresenta um exercício analítico, crítico e experimental sobre a relevância do conceito de território no século XXI. Pretende-se contribuir para o desenvolvimento de uma noção de território coerente com as crises locais e globais contemporâneas e, compreender de que forma a construção de uma visão crítica coletiva dos jovens pode apoiar a resolução dessas mesmas crises. Num contexto marcado por desafios ambientais, sociais, políticos e económicos, as crises do país e do mundo cruzam-se de forma sistemática e impactante com o território, contribuindo para a sua transformação muitas vezes abrupta e inesperada, afetando o bem-estar dos seres vivos. Esta circunstância não tem apenas como consequência a degradação do território em si, mas também do seu conceito, banalizando-se o termo e deixando-se consequentemente de se compreender o seu significado (Stuart Elden). Partindo dos contributos da geografia (Milton Santos e de Henri Lefebvre), da arquitetura (Zaida Muxi e Josep Maria Montaner) e política (Oscar Mazzoleni) a reflexão explorada, propõe olhar para o território como elemento comum, agregador e transversal às crises contemporâneas questionando o impacto da relação do ser humano com o mesmo. A relevância desta investigação está na passagem do exercício crítico para o experimental, onde se procura estimular uma visão crítica do território junto da população, com especial enfoque nos jovens entre os 15 e os 25 anos, cuja capacidade de construção identitária e mobilização social os torna particularmente relevantes para a promoção de mudança. Desenvolveu-se, para tal, uma metodologia participativa aplicável ao contexto de sala de aula, baseada na colocação de questões individuais, em grupo e para discussão coletiva sobre o território.

Metodologia | A metodologia foi testada com alunos do 12.º ano tendo sido realizado um inquérito anterior e posterior à sessão para aferir resultados. O objetivo deste inquérito foi avaliar a perceção inata dos jovens sobre a sua relação com o território e aferir o eventual impacto da atividade nas suas convicções. A análise comparativa desses resultados revelou que mais de metade dos participantes alterou a sua resposta final, atribuindo maior importância ao território no seu quotidiano.

Resultados | Os resultados sugerem que promover o questionamento crítico sobre o território contribui para capacitar os jovens de um entendimento multidisciplinar e multifatorial, podendo facilitar processos de adaptação, participação informada e ação coletiva. Embora experimental, a metodologia demonstra potencial de replicação e adaptação a diferentes contextos escolares, reforçando a consciência territorial e fomentando práticas sociais mais responsáveis.

Palavras-chave | Território, Crises contemporâneas, Jovens, Visão crítica, Metodologia participativa, Geografia, Ação coletiva.

EFFECTS OF REGIONAL PUBLIC FINANCES ON THE DEVELOPMENT OF THE AZORES.

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Purpose | The economy of the Azores depends on the dynamics of its economic base, marked by agriculture and tourism, transfers from abroad, from the State and – to a lesser extent – from Europe, and the creation and servicing of the regional debt, respectively positively and negatively (Dentinho Fortuna, 2019). The objective of this article is to update this model, based on data from 2001 to 2016, with a broader data series from 1998 to 2022, seeking to understand to what extent Regional Governance, with the support of the State and the European Union, has benefited or harmed the islands' economy.

Methodology/Approach | To achieve this objective, an econometric model is estimated that relates, on the one hand, regional output with employment and its qualification, and Gross Fixed Capital Formation, and, on the other hand, total employment with the main basic activities (tourism and agriculture), external financial support to the Azores economy, debt variation, and public debt as a proxy for debt servicing.

Expected Results | The results indicate that milk production, the number of guests, debt variation, and public transfers have a strongly positive role in employment, while public debt has a strong negative effect. Interestingly, transfers from the European Union do not have a significant effect on employment. We show that the liberalization of air transport decided by the national government and the end of constraints on milk production decided by the European Union had an important effect on the Azores economy, but the increase in public debt is severely destroying the jobs created.

Keywords | Azores economy, Regional Governance, Econometric model, Public debt, Regional output, Tourism and agriculture, Public transfers.

WORK AND ORGANIZATIONAL IMAGE: RECRUITMENT NARRATIVES AT REGIONAL JOB FAIRS - EVIDENCE FROM THE VERONA-VICENZA RECRUITING DAY**Serena Cubico**

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Abstract

Purpose | Focusing on the strategic interface between firms, talent, and the regional innovation ecosystem at the Verona–Vicenza Recruiting Day 2025, this paper explores how employer communication conveys work-related values reflecting deeper cultural and value-oriented structures shaping organizational life (Rokeach, 1973; Roe & Ester, 1999; Albrecht et al., 2020; Bilsky et al., 2011; Cubico & Bellotto, 2016). Alongside signals of digital maturity, inclusiveness, and developmental opportunities, the interactions emerging during the Job Fair shape candidates' perceptions of the organizational climate within firms (Freddi et al., 2023; Garbellano & De Veiga, 2019; Sacco, 2021). In doing so, the paper positions recruitment not merely as a hiring activity but as a regional mechanism through which firms project their organizational image and compete for talent within a transforming job market.

Methodology/Approach | The study adopts a qualitative mixed-methods design combining digital ethnography of the Recruiting Day portal, content analysis of the companies' career pages and LinkedIn communications, and a preliminary exploratory survey of prospective candidates. Firms are purposively selected to capture different digital communication and organizational archetypes, including multinationals, regional leaders, hybrid SMEs, digital-native firms, and institutional actors. The analysis compares how organizations frame innovation, sustainability, learning, stability, and diversity across recruitment messages and role categories, reflecting different stages of digital transformation within contemporary labour markets (Konle-Seidl & Danesi, 2022, Pouliakas & Santangelom 2026; Orazi & Sofritti, 2024).

Expected Results | More digitally mature organizations are likely to emphasize autonomy, learning, innovation, and flexible career development, whereas more traditional organizations may foreground stability, role clarity, and hierarchical coordination. The study suggests that recruitment discourse serves as a public signal of organizational climate and strategic orientation, shaping candidates' expectations of fit, inclusion, and opportunity, and that authentic, transparent digital communication strengthens employer branding and aligns with emerging European sustainability standards. The broader contribution lies in demonstrating how recruitment arenas can serve as observatories of organizational change within regional innovation ecosystems.

Keywords | Recruitment communication, organizational values, employer branding, SMEs, regional innovation ecosystem.

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COESÃO TERRITORIAL EM REGIÕES DE FRONTEIRA, ENTRE PROBLEMA E RECURSO: SÍNTESE CRÍTICA DA LITERATURA (1985–2025)**José M G Pereira**

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Objetivo | As regiões de fronteira ocupam uma posição estruturalmente ambígua no desenvolvimento territorial europeu: são frequentemente associadas a declínio demográfico, fragilidades socioeconómicas e défices de acessibilidade, mas também entendidas como espaços estratégicos de integração territorial e de cooperação transfronteiriça. Apesar da crescente centralidade da coesão territorial no debate europeu, a literatura encontra-se fragmentada entre discussões conceptuais, avaliações de instrumentos de política e estudos empíricos dispersos. Esta comunicação visa sistematizar criticamente o modo como a literatura científica aborda a coesão territorial em regiões de fronteira, com incidência no contexto europeu e ibérico, identificando tensões conceptuais, limites dos instrumentos de política e padrões de desigualdade territorial. Procurará responder à questão estruturante: é a fronteira tratada como problema territorial a resolver ou como recurso de desenvolvimento sistematicamente subaproveitado pelas políticas públicas?

Metodologia | A comunicação baseia-se numa revisão sistemática da literatura (RSL), orientada pelas diretrizes PRISMA 2020 e pelo framework PICOC, adaptado à investigação em políticas públicas e estudos territoriais (Page et al., 2021; Petticrew & Roberts, 2006). A revisão cobre o período 1985–2025, tomando 1985 como marco histórico-normativo da adesão ibérica à Comunidade Económica Europeia e da consolidação de um novo ciclo de políticas territoriais. A pesquisa foi realizada nas bases Scopus e Web of Science, com strings booleanas organizadas em torno de três blocos semânticos: coesão territorial e desigualdades regionais; regiões de fronteira e cooperação transfronteiriça; contexto europeu e ibérico, incluindo referências a INTERREG, POCTEP e Fundos Estruturais. O processo de triagem segue critérios explícitos de inclusão e exclusão, em linha com a tradição das revisões sistemáticas nas ciências sociais (Petticrew & Roberts, 2006; Tranfield et al., 2003).

Resultados Esperados | As regiões de fronteira não são tratadas na literatura como uma condição territorial homogénea, mas como espaços diferenciados e disputados, nos quais a coesão territorial surge simultaneamente como ambição normativa, objetivo de política pública e problema empírico. Em particular, a análise poderá evidenciar três tendências principais: persistência de tensões na conceptualização da coesão territorial; evidência desigual sobre os efeitos dos instrumentos de política em territórios de fronteira; e subvalorização da heterogeneidade interna destes espaços na formulação das políticas. Desta forma, procurar-se-á contribuir para o debate sobre governação inter-regional, coesão e sustentabilidade, oferecendo uma base crítica para repensar os territórios portugueses de fronteira não como bloco periférico homogéneo, mas como mosaico territorial complexo, em linha com o debate sobre “places that don’t matter” (Rodríguez-Pose, 2018; Rodríguez-Pose et al., 2023).

Palavras-chave | Coesão territorial, regiões portuguesas de fronteira, política de coesão europeia, desigualdades territoriais, governação transfronteiriça.

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REINVENTAR O RURAL: ALDEIAS CRIATIVAS, RECURSOS ENDÓGENOS E DESENVOLVIMENTO SUSTENTÁVEL NA SERRA DO MONTEMURO

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Resumo

Objetivo | Os territórios rurais em toda a Europa, sobretudo nas regiões periféricas e de montanha, enfrentam desafios persistentes relacionados com o declínio demográfico, o envelhecimento da população e um contexto socioeconómico desfavorável (Alonso et al., 2024; Pato & Teixeira, 2016). Neste contexto, o conceito de “aldeias criativas” tem emergido como uma abordagem promissora para a sustentabilidade, resiliência e regeneração rural, combinando recursos endógenos e culturais, criatividade e inovação liderada pelas comunidades. Através dos estudos de caso de Campo Benfeito e Mezio, duas aldeias localizadas na Serra do Montemuro, concelho de Castro Daire (Portugal), este estudo explora o papel das “aldeias criativas” na promoção do desenvolvimento rural sustentável e até regenerativo. Campo Benfeito e Mezio apresentam trajetórias complementares de revitalização rural, enraizadas no conhecimento tradicional, na agricultura familiar, na produção cultural, no artesanato e na participação comunitária (Pato, 2020). O estudo discute como estas aldeias funcionam como ecossistemas socioeconómicos criativos, mobilizando recursos endógenos enquanto respondem a desafios contemporâneos de sustentabilidade.

Metodologia | A análise assenta no enquadramento do projeto FCT RESTORE - REgenerative Sustainable TOurism embracing Rural Environment, Culture, and Communities, que visa examinar processos de turismo sustentável e regenerativo em áreas rurais. A metodologia baseia-se na análise documental e estatística e em visitas exploratórias às aldeias.

Resultados Esperados | Os resultados revelam que, num território com claros sinais de interioridade e com escassez de recursos materiais e financeiros, as comunidades rurais locais desempenham um papel fundamental no processo da regeneração territorial através da criação de projetos inovadores e assentes na participação comunitária. Destacam-se os referentes às Capuchinhas do Montemuro, o Teatro Regional da Serra do Montemuro, a Cooperativa de Artesãos do Montemuro e a Ervital. Os impactos são visíveis na preservação do património cultural e natural, na criação de emprego local, na fixação da população e na melhoria do bem-estar das comunidades locais. Ao explorar estes casos, o estudo contribui para os debates atuais sobre o papel das comunidades locais e dos recursos endógenos na valorização do património e na promoção de um turismo que se pode apelidar de ‘regenerativo’ (Kastenholz et al., 2025).

Palavras-chave | Desenvolvimento rural sustentável, Turismo rural regenerativo, aldeias criativas, Serra do Montemuro, RESTORE.

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HOW DOES TERRITORIAL BRANDING INFLUENCE CONSUMERS' VALUE PERCEPTION OF GEOGRAPHICAL INDICATIONS? EVIDENCE FROM A SYSTEMATIC LITERATURE REVIEW

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Abstract

Introduction | This paper examines how territorial branding influences consumers' value perception of products protected by Geographical Indications (GIs). It is based on a systematic review of 46 peer-reviewed articles published between 2020 and 2024, complemented by institutional documents referenced in the study. The review identifies three dominant methodological approaches: quantitative (52%), mainly discrete choice experiments and econometric models; qualitative (30%), including ethnographic case studies and grounded theory; and mixed methods (17%), combining surveys/interviews and consumer neuroscience techniques. Findings converge on four interrelated dimensions through which territorial branding shapes perceived value: (i) quality and price premium, with GI labels associated with average premiums of 12%–35% relative to non-qualified products; (ii) identity narrative, where terroir storytelling and place names on labels reinforce authenticity and emotional attachment; (iii) institutional trust mechanisms, in which transparent and capable consortia strengthen credibility and willingness to pay; and (iv) territorial impacts, including evidence on exports, foreign direct investment, rural employment, and tourism dynamisation. Building on these results, the paper proposes an integrative conceptual framework extending the Tradition–Innovation Synergy (TISyn) model with Resource-Based View and Social Identity Theory, supporting future multivariate and comparative research.

Methodology | The study adopts a qualitative systematic literature review using Scopus as the primary database. Searches were organised around the keywords “Territorial Branding”, “Geographical Indications” and “Consumer Perception”, including combinations that initially returned 69 and 162 records. After screening abstracts for relevance, removing duplicates, and applying eligibility criteria, 46 articles were retained for full reading and in-depth analysis. The review protocol involved sequential steps (deduplication; title/abstract screening; full-text assessment) and included only original peer-reviewed articles published between 2020 and 2024, in English, Portuguese, Spanish, or French. The final corpus was complemented by institutional documents referenced in the paper to strengthen the legal and policy framing of GIs.

Expected Results | The final sample (n=46) shows a concentration in EU contexts (54.3%), with Italy leading (26.1%), followed by Spain (13.0%), France (8.7%) and Portugal (6.5%). Sectorally, wine dominates (32.6%), followed by olive oil (17.4%), cured meats (8.7%) and cheese (6.5%), while other products (e.g., coffee, honey, seafood) remain comparatively under-segmented within “other” categories.

Methodologically, quantitative studies (52%) prevail (discrete choice experiments; econometric causal inference), complemented by qualitative approaches (30%) and mixed methods (17%), including consumer neuroscience.

Across the literature, four analytical axes structure the branding territorial → perceived value relationship:

1. Quality and price premium: GI labels generate average price premiums of 12%–35%, often reinforced when territorial sensory cues align with the place image.
2. Identity narrative: terroir storytelling, tradition, landscape, and label toponymy strengthen authenticity and “sense of place”.

3. Institutional mechanisms: collective governance (consortia, traceability, certification) acts as a key mediator of trust and legitimacy, supporting willingness to pay.
4. Territorial impact: evidence is reported for positive effects on exports, attractiveness for investment, rural employment, and tourism.

The review also identifies three complementary theoretical lines: terroir as a communicative/narrative construction; territories as place-based intangibles and brand equity resources; and the Tradition–Innovation Synergy (TISyn) model, where innovation aligned with symbolic heritage sustains authenticity and competitiveness.

Discussion and Conclusions | The evidence supports a multifaceted influence of territorial branding on GI value perception, operating simultaneously at cognitive-emotional (authenticity, identity, attachment), institutional (trust, governance) and economic (price premium, trade and territorial spillovers) levels. The paper consolidates these findings into a conceptual framework that extends the TISyn model by integrating Resource-Based View and Social Identity Theory, to better capture how territorial intangibles, collective identity, and governance jointly shape perceived value.

Key limitations acknowledged include reliance on Scopus only, potential selection bias in screening, and the 2020–2024 time window. The review points to a clear research agenda: expand comparative studies beyond the EU, diversify product sectors beyond “anchor” categories (notably wine), and operationalise multivariate models that jointly estimate the four axes (quality premium, identity narrative, institutional trust, territorial impact). A subsequent empirical phase is proposed in the source text, using qualitative questionnaires (potentially complemented by interviews and focus groups) with consumers, producers, certifiers, and policy/marketing actors to validate and deepen the mechanisms identified.

Keywords | Territorial branding; Geographical indications; Consumer value perception; Price premium; Terroir storytelling; Institutional trust/governance.

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CIRCULAR BIO-ECONOMY: CONCEPTS, CHALLENGES, AND EMERGING RESEARCH DIRECTIONS

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Abstract

Purpose | The circular bio-economy (CBE) has rapidly emerged as a strategic framework for advancing regenerative, low-carbon development, yet its conceptual foundations and operational pathways remain fragmented across disciplines and policy arenas. This article makes an original contribution by developing a fully integrated theoretical framework that unifies four major bodies of scholarship—sustainability transitions theory, circular economy theory, bio economy innovation systems, and socio-ecological systems thinking—to conceptualize the CBE as a multidimensional socio-technical ecological transition.

Methodology/Approach | Building on a structured qualitative synthesis of recent literature, the study advances the field by offering a state-of-the-art analysis of emerging technological trajectories, including bio-electrochemical systems, microalgal closed loop processes, insect biorefineries, and aquatic biotechnology, and by demonstrating how these innovations collectively reshape biological resource flows, circularity mechanisms, and decarbonization strategies. A second innovative contribution lies in the cross-sectoral comparative analysis of forestry, agriculture, palm oil, and aquatic biotechnology, which reveals heterogeneous transition dynamics and identifies context-specific enabling conditions and systemic barriers. The article further advances the debate by diagnosing the institutional and governance misalignments—such as policy fragmentation, investment gaps, and weak multi-actor coordination—that constrain CBE implementation, while highlighting emerging governance innovations with transformative potential.

Methodology/Approach | Finally, the study proposes a conceptual model and methodological workflow that together offer a novel analytical architecture for future empirical research. By synthesizing diverse strands of scholarship into a coherent, interdisciplinary framework, besides filling a gap, this article provides a significant theoretical, practical, and innovative contribution to understanding how circular and bio-based systems can be designed, governed, and scaled to support long-term socio-ecological resilience.

Keywords | Circular bio-economy, circular economy; bio-economy; sustainability; waste valorization; biorefineries; policy frameworks; indicators; renewable resources.

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PROMOÇÃO DA LITERACIA DIGITAL BÁSICA ENTRE A POPULAÇÃO IDOSA EM PORTUGAL: UM QUESTIONAMENTO SOBRE A EFICÁCIA DAS POLÍTICAS PÚBLICAS DOS ÚLTIMOS DEZ ANOS**Raphael Rocha**

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Proposta | A cobertura de redes de alta velocidade, em Portugal, é bastante significativa, atingindo mais de 90% do território (AMA, 2024). No entanto, dados estatísticos de 2024 relevam que apenas 56% da população nacional possui, pelo menos, as competências digitais mínimas, com uma taxa de crescimento anual de 0,6% desde 2021, bem aquém da taxa necessária para atingir a meta de 80% até 2030. A situação é mais crítica entre os escalões etários mais altos e entre a população com menor nível de escolaridade. De acordo com dados da ANACOM (2025), somente 26% da população com escolaridade até ao 3º ciclo e 42% da população de 55-64 anos possuem literacia digital básica ou superior, caindo para 21% no escalão etário seguinte (65-74 anos). Tendo em conta que Portugal é o segundo país mais envelhecido da Europa, apenas atrás da Itália (Noronha, 2025), este artigo pretende apresentar uma reflexão sobre a eficácia das políticas públicas de inclusão digital que os sucessivos governos de Portugal têm implementado ao longo da última década, mais especificamente com relação à promoção da literacia digital entre a população idosa.

Metodologia/Abordagem | A reflexão será feita com base na análise das políticas públicas para a promoção das competências básicas digitais entre a população idosa (65+) e suas medidas, bem como da evolução dos indicadores do Digital Economy and Society Index (DESI) diretamente relacionados à questão. Paralelamente, tendo em vista que a taxa de crescimento anual registada na UE é de 1,5%, pretende-se identificar as diferenças das políticas públicas destinadas a esta faixa etária dos países com maiores taxas de crescimento comparativamente às de Portugal.

Resultados Esperados | Espera-se com esta análise (1) identificar as lacunas e/ou as razões que condicionam a eficácia das políticas públicas relativamente à promoção das competências digitais mínimas entre população idosa e (2) perceber de que forma o atual governo português, com a aprovação do Pacto de Competências Digitais, a 30/12/2025, prevê promover a literacia digital básica entre a população idosa e se estão em linha com as metas que se pretende atingir (80% da população até 2030).

Palavras-chave | Inclusão digital, Literacia digital, Políticas públicas, População idosa, TICs.

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ENGINEERING, SOCIAL TECHNOLOGIES AND UNIVERSITY EXTENSION: A CASE STUDY ON EPISTEMIC JUSTICE AND SUSTAINABLE TERRITORIAL DEVELOPMENT

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Abstract

Purpose | This study examines the role of university extension in mediating the relationship between engineering knowledge and social technologies, contributing to debates on epistemic justice and sustainable territorial development. Grounded in Science and Technology Studies (STS) and Epistemologies of the South, the research analyzes how technical knowledge can be translated, adapted and co-produced with communities. The study is based on a case involving the development of self-compacting concrete (SCC) with incorporation of local residues, combined with community training strategies. It argues that extension practices can reconfigure the production and circulation of knowledge, enabling more inclusive, context-sensitive and socially relevant technological solutions.

Methodology/Approach | The research adopts a qualitative case study approach, integrating experimental engineering research with extension-based practices. The project involves mapping local residues, developing SCC mixtures, training construction workers and applying the technology in community contexts. The analytical framework draws on the concept of social technologies (Dagnino) and epistemic justice (Santos), emphasizing accessibility, co-production and territorial embeddedness. Data are derived from laboratory experiments, training activities, field interventions and participatory processes, allowing an integrated analysis of technical and social dimensions.

Expected Results | The findings indicate that the articulation between engineering and university extension can foster the development of social technologies that are both technically robust and socially appropriable. The case demonstrates that SCC with local residues can operate as a vehicle for circular economy practices while also promoting knowledge democratization and workforce empowerment. The extension dimension enhances the translation of technical knowledge into practical applications, strengthening local capacities and enabling replication in different territorial contexts. In dialogue with international agendas such as the European Green Deal and circular economy strategies, the study highlights how locally grounded innovations can contribute to broader transitions toward sustainable and inclusive regional development.

Keywords | Epistemic justice; social technologies; university extension; sustainable development; STS.

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SELF-COMPACTING CONCRETE USING REGIONAL RESIDUES: A STRATEGY FOR CIRCULAR ECONOMY, CAPACITY BUILDING AND SCALABLE SUSTAINABLE CONSTRUCTION

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Abstract

Purpose | This study investigates the use of self-compacting concrete (SCC) incorporating regional mineral residues, with emphasis on marble powder, as a strategy to promote circular economy, cost reduction and sustainable territorial development. The proposal is based on the hypothesis that enhancing concrete through the partial replacement of raw materials with local residues can generate dual impacts: environmental, by reducing the extraction of natural resources and waste disposal; and socioeconomic, by increasing the technical and economic accessibility of construction practices. The study also explores the role of community training as a mechanism for the replication and dissemination of this technology across different regional contexts, particularly among construction workers.

Methodology/Approach | The research combines experimental and extension-based approaches. From a technical perspective, SCC mixtures incorporating residues were developed and evaluated through slump flow, V-funnel flow time and L-box passing ability tests. The results indicated stable self-compacting behavior, with slump flow values between 730 and 780 mm, flow times between 11 and 22 s, and passing ability ratios between 0.89 and 0.98, corresponding to classes SF2–SF3, VS2/VF2 and PA1 according to EFNARC guidelines. Comparison with literature data showed that the production and casting processes of SCC were tolerant to operational variations among experimental batches, a key aspect for its application in training contexts and technology transfer. In parallel, a training model based on circular economy principles is structured, including residue mapping, mixture development and practical application in community settings.

Expected Results | The results indicate that the use of residues in SCC provides consistent technical performance, high operational robustness and adequate reproducibility, which are essential for its application in real production contexts and for its adoption across different levels of workforce qualification. From a territorial perspective, the proposal contributes to reducing construction costs, promoting the reuse of local residues and strengthening regional production chains. The integration of applied research and community training constitutes a replicable social technology, with potential for adaptation to different territories, including European contexts. The study highlights sustainable SCC as a tool for regional development, combining technical innovation, productive inclusion and sustainability.

Keywords | Self-compacting concrete, circular economy, construction waste, local development, social technology.

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BEYOND THE INDIVIDUAL: THE ROLE OF INTRAPRENEURIAL TEAMS IN PUBLIC SECTOR REGIONAL DEVELOPMENT**Maria Botas Charrua**Universidade de Évora (Portugal)
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ssarkar@uevora.pt**Abstract**

Purpose | Public sector intrapreneurship represents a critical starting point for advancing our understanding of how public employees can foster organizational innovation. Public organizations are increasingly expected to assume an active role in promoting territorial innovation as a response to growing social and economic challenges that are both complex and demanding.

Methodology/Approach | In contrast, the private sector literature reveals a strong and well-established focus on entrepreneurial teams, highlighting their dynamic role in innovation, organizational performance, and new venture creation. Within the public sector, however, there is not only a clear scarcity of research, but also a limited number of studies examining the relationship between teams, public sector intrapreneurship, and their potential contribution to regional development. Existing research is predominantly centered on the individual intrapreneur, making it essential to bring forward the role of intrapreneurial teams as key drivers of regional development. Accordingly, this study raises the following research question: how can intrapreneurial teams in the public sector act as catalysts for regional development? Addressing this question requires considering not only team composition, but also levels of autonomy, degree of embeddedness in territorial networks, and the capacity to implement and diffuse innovation with regional impact. Understanding team dynamics and their articulation within the territorial context is therefore crucial to explain how they contribute to regional development. In this sense, public sector intrapreneurial teams can be conceptualized as structures of collective interaction and mutual support that enable innovation with regional impact.

Expected Results | This study is expected to contribute to the literature in several ways. First, it shifts the focus of public sector intrapreneurship from the individual to a collective perspective centered on teams. Second, it establishes a link between team-level dynamics and regional development outcomes, connecting micro-level processes with macro-level impacts. Finally, it addresses previously identified gaps by positioning public sector intrapreneurial teams as key, yet underexplored, mechanisms supporting innovation and regional development. In doing so, the study extends the theoretical boundaries of public sector intrapreneurship and offers relevant insights for fostering innovation-driven regional development.

Keywords | Public sector intrapreneurship, Intrapreneurial teams, Regional development, Organizational innovation, Territorial networks, Public sector innovation.

DESIGNING PRIVATE PAYMENT SCHEMES FOR BIODIVERSITY IN EU FARMLANDS: INSIGHTS FROM 30 INITIATIVES

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Abstract

Purpose | The European Union (EU) Biodiversity Strategy places increasing emphasis on mobilising private finance to support nature-based transitions in agricultural landscapes. However, the effectiveness of market-based instruments in delivering biodiversity outcomes within structurally diverse and ecologically complex EU farmlands remains uncertain. This study critically examines whether existing payment schemes are capable of reconciling ecological integrity with market requirements, and how their design influences farmer engagement and biodiversity outcomes.

Methodology/Approach | This research analyses a sample of thirty biodiversity and ecosystem service payment schemes, either implemented or under development across EU agricultural contexts. Schemes are systematically characterised according to governance arrangements, funding sources, market scope, payment structures, monitoring approaches, and temporal frameworks. A comparative analytical framework is applied, combining Multiple Correspondence Analysis (MCA) and hierarchical clustering to identify dominant design patterns and group schemes into typologies. This approach enables the exploration of relationships between design features and their underlying governance and market logics.

Expected Results | The analysis identifies three dominant typologies: (i) territorially embedded schemes emphasising ecological specificity and context-dependent outcomes; (ii) international market-oriented schemes prioritising standardisation, with a focus on individual projects and results-based payments; and (iii) hybrid approaches attempting to bridge these models. Market-oriented schemes offer scalability and investor access, often relying on model-based performance indicators to reduce transaction costs and estimate outcomes ex-ante. However, they risk oversimplifying ecological complexity, misaligning incentives, and marginalising biodiversity when integrated with carbon markets. Embedded schemes maintain strong ecological relevance and local legitimacy but face constraints in financial viability, uptake, and access to private capital. Hybrid models partially reconcile these tensions, balancing ecological specificity with market logic, though trade-offs remain inevitable. A key finding is that limited adoption of biodiversity payment schemes is primarily driven by misaligned remuneration structures that fail to compensate farmers for risk, opportunity costs, and long ecological transitions, rather than technical or methodological shortcomings. Aggregating multiple ecosystem services can enhance financial attractiveness, yet introduces additional challenges, including complex landscape interactions and slow ecological responses. Overall, the results highlight that private payment schemes can support transitions to nature-based, multifunctional farming systems, but only if governance frameworks and design features account for local ecological conditions, long-term recovery periods, fair compensation, and farmers' agency. Without addressing these structural and institutional challenges, private finance is unlikely to deliver transformative biodiversity outcomes across EU farmlands.

Keywords | Payment for Ecosystem Services, Agri-environmental schemes, European farmland, Biodiversity finance, Private funding.

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REESCRIBIENDO EL IMAGINARIO RURAL: CINE, SESGOS COGNITIVOS Y MARKETING TERRITORIAL FRENTE A LA DESPOBLACIÓN ESPAÑOLA

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Resumen

Objetivo | Este estudio analiza el éxodo rural de los jóvenes españoles desde la intersección de la economía del comportamiento, el marketing territorial y la historia audiovisual. Históricamente, el cine español ha funcionado como un mecanismo de construcción de imaginarios geográficos que la juventud rural interioriza como representación legítima de su entorno, generando un sesgo de inferioridad territorial que condiciona sus decisiones migratorias. El objetivo es diagnosticar este mecanismo a través de la heurística de disponibilidad y el efecto marco, y proponer el cine contemporáneo neorural como herramienta estratégica de marketing territorial. Estas narrativas operan como un nudge cultural capaz de revertir dicho sesgo, promoviendo la cohesión y sostenibilidad demográfica en las regiones periféricas.

Metodología | Se propone una metodología cualitativa e interdisciplinar que triangula tres grandes áreas académicas: la economía del comportamiento (Kahneman y Tversky, 1974; Thaler y Sunstein, 2008), la creación de imaginarios geográficos a través de la pantalla (Osácar Marzal et al., 2022) y la historia del cine español vinculada al mundo rural (Ballesteros, 2016; Martínez-Puche et al., 2022). Así, nos enfocamos en un análisis comparado de un conjunto de películas clave, revisando títulos emblemáticos del cine del desarrollismo y décadas posteriores —como *Surcos* (Nieves Conde, 1951), *Bienvenido, Mr. Marshall* (Berlanga, 1953) o *Los santos inocentes* (Camus, 1984)—, para contrastarlos con obras destacadas de la reciente ola neo-rural, como *O que arde* (Laxe, 2019), *Alcarràs* (Simón, 2022) y *As bestas* (Sorogoyen, 2022). Con este análisis, buscamos rastrear cómo el “efecto marco” y la heurística de disponibilidad operan al moldear el imaginario colectivo sobre la vida rural.

Resultados Esperados | Se espera evidenciar que las narrativas cinematográficas actúan como un factor condicionante en la arquitectura de decisiones de los jóvenes de la «España vaciada». El cine del desarrollismo consolidó, con la reiteración de imágenes de atraso y precariedad rural, un imaginario que opera como ancla cognitiva negativa. El cine neo-rural contemporáneo, sin embargo, actúa como reencuadre de ese imaginario, introduciendo narrativas de resiliencia, identidad y elección deliberada. Los resultados sugieren que un marketing territorial apoyado en este ecosistema audiovisual puede operar como nudge: no imponiendo un comportamiento, sino rediseñando el entorno informacional y emocional en el que se toman las decisiones migratorias. Revertir el sesgo de inferioridad a través de la cultura se perfila así como una intervención de gobernanza soft de bajo coste y alto potencial transformador.

Palabras clave | Éxodo rural, Economía del comportamiento, Cine español, Marketing territorial, Sesgos cognitivos.

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THE IMPORTANCE OF THE CONSTRUCTION SECTOR IN REGIONAL DEVELOPMENT AND COHESION. THE CASE OF CONSTRUCCIONES CALDERÓN (1949-2025)

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Abstract

Purpose | During the second half of the 20th century, Spain underwent a profound economic transformation following the period of autarky that followed the Civil War. This process was characterised by significant regional imbalances, which were particularly evident between more industrialised regions and peripheral areas such as Andalusia. In this context, the gradual lifting of economic restrictions from the 1950s onwards, together with the opening up to the outside world, encouraged the inflow of investment, remittances and resources that were key to the country's development.

Gradually, both public authorities and private actors began to take decisions aimed at boosting the most depressed economies, both in cities and in rural areas far from major urban centres. The socio-economic revitalisation of the country required a proportional distribution of public-private investment across all regions of Spain.

Methodology/Approach | This study aims to analyse the role of the construction sector in regional development and territorial cohesion, using the case study of Construcciones Calderón (1949–2025), a family-run business with a distinguished track record in the province of Jaén and Andalusia. The research is based on a qualitative methodology, combining historical and business analysis with a documentary review of public and private construction projects carried out by the company over more than seven decades.

Expected Results | The results show that the activities of Construcciones Calderón have contributed significantly to the territorial structuring of the province of Jaén, promoting improvements to road infrastructure, connectivity between areas, housing construction, access to basic services such as water supply networks, and the revitalisation of local commerce. Furthermore, it is observed how such companies act as key intermediary agents in the implementation of public policies, playing a significant role in reducing territorial inequalities and improving the quality of life of local communities. At the same time, the construction sector became one of the country's main economic drivers, employing a significant proportion of the population. This dynamism was reinforced by the boom in international tourism during the 1960s and 1970s, which helped to boost economic activity in many regions. This study contributes to the literature on regional development by highlighting the role of local construction firms as key players in territorial cohesion processes, particularly in historically disadvantaged regions such as the province of Jaén. In this regard, the case study demonstrates how entrepreneurship has helped to revitalise the region, improve its integration into wider economic networks, and foster emerging territorial cohesion.

Keywords | Regional Development, Construcciones Calderón, Territorial Cohesion, Business History.

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TURISMO RELIGIOSO, GOBERNANZA Y DESARROLLO TERRITORIAL: EL CASO DE FÁTIMA COMO CIUDAD-SANTUARIO GLOBAL (1917-2025)

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Resumen

Objetivo | Fátima, antes de 1917, era una pequeña aldea ubicada en una zona rural aneja al municipio portugués de Ourém. La historia de este sitio cambió ese año cuando tuvieron lugar apariciones de la Virgen María a tres niños pastores. A partir de ese momento, el lugar empezó a recibir un continuo flujo de visitantes que poco a poco se fue incrementando. Como consecuencia, surgió un precario desarrollo en torno al Santuario, configurándose un modelo de crecimiento basado en un núcleo religioso central sobre el que se articula una economía de servicios centrada y orientada a atender a peregrinos y visitantes. Progresivamente, bajo la coordinación de las diferentes instituciones eclesiales y civiles, se sentaron las bases de la expansión del turismo religioso y su estabilización en el tiempo, contribuyendo al desarrollo local y regional. Esa estrategia común entre los diferentes agentes, que hemos denominado gobernanza multinivel híbrida, se ha convertido en un modelo de referencia de gestión conjunta de objetivos territoriales. En este contexto, la ordenación del territorio desempeñó un papel fundamental, orientándose hacia la preservación de la religiosidad del lugar y la adaptación a los flujos masivos de visitantes. A lo largo del tiempo se han dictado diversas legislaciones centradas en la planificación territorial y focalizadas, entre otros, a atraer la inversión privada como generador de expansión, riqueza y empleo que ha permitido una especialización turística y económica del territorio.

Metodología | El objetivo de este trabajo es analizar el proceso de transformación de Fátima desde una aldea rural hasta una ciudad-santuario global, identificando los factores clave de su desarrollo, el papel de la gobernanza multinivel y su impacto en la cohesión territorial. La investigación adopta una metodología cualitativa basada en el análisis de datos históricos, económicos e institucionales provenientes de fuentes oficiales civiles y religiosas, además de trabajo de campo.

Resultados Esperados | Los resultados muestran que Fátima se ha consolidado como un referente internacional del turismo religioso, sustentado un modelo de desarrollo basado en la especialización funcional, la coordinación institucional y la planificación territorial. Este proceso ha generado impactos significativos en el desarrollo socioeconómico regional, contribuyendo a la dinamización económica, articulación e integración del territorio, reforzando procesos de cohesión territorial en Portugal. Desde la perspectiva de los estudios regionales, económicos e históricos, el caso específico de Fátima aporta evidencia empírica relevante mostrando cómo el turismo religioso es capaz de sustentar modelos de crecimiento específicos, duraderos en el tiempo y sostenible.

Palabras clave | Turismo religioso, desarrollo regional, gobernanza multinivel, cohesión territorial, Fátima.

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GOVERNANÇA TERRITORIAL E TRANSIÇÃO CIRCULAR: O PAPEL DO MARKETING VERDE E DA EDUCAÇÃO AMBIENTAL NA REDUÇÃO DE DESIGUALDADES REGIONAIS

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Resumo

Proposta | A transição para sistemas mais sustentáveis não depende apenas de avanços tecnológicos ou regulatórios, mas também de processos educativos e comunicacionais capazes de engajar diferentes atores sociais (Beizitere et al., 2026; Heydari et al., 2025; Toboso-Chavero et al., 2025). Sendo assim, diante das persistentes desigualdades territoriais e dos desafios associados à transição para modelos sustentáveis de produção e consumo, este estudo tem como objetivo analisar as estratégias de marketing verde para promover a educação ambiental como instrumento de governança territorial voltada à promoção da economia circular em diferentes territórios.

Metodologia/Abordagem | Para alcançar o objetivo proposto, pretende-se utilizar uma abordagem qualitativa, de caráter exploratório e descritivo utilizando como estratégia o estudo de casos múltiplos (Demo, 2022; Malhotra, 2019; Yin, 2015) em duas Cidades de Portugal: Leiria e Condeixa. A escolha dos casos se justifica pelas diferenças em termos de escala urbana, densidade populacional e maturidade de ecossistemas de inovação, permitindo analisar como iniciativas de Educação Ambiental e Marketing Verde se manifestam em realidades territoriais distintas. A coleta de dados será realizada por meio de análise documental de campanhas, relatórios institucionais e materiais educativos, entrevistas semiestruturadas com atores envolvidos na gestão municipal ou entidades de inovação e observação não participante (Demo, 2022; Yin, 2015). A análise dos dados será conduzida por meio da técnica de análise de conteúdo (Bardin, 2011), permitindo a identificação de categorias relacionadas à governança territorial, engajamento social e promoção da economia circular.

Resultados Esperados | Espera-se que os resultados evidenciem que as estratégias de marketing verde para a promoção da educação ambiental podem atuar como um mecanismo relevante de governança territorial, ao promover maior conscientização, engajamento e participação dos diferentes atores envolvidos na transição para a economia circular (Andika et al., 2025; Correia et al., 2023; Pereira & Campos, 2026). Além disso, acredita-se que tais práticas contribuam para reduzir desigualdades territoriais, ao facilitar o acesso à informação, estimular mudanças de comportamento e fortalecer redes colaborativas entre regiões com distintos níveis de desenvolvimento (Bourdin & Torre, 2025). O estudo também pretende indicar que a integração entre educação, comunicação e estratégias sustentáveis pode ampliar a efetividade das políticas públicas e iniciativas privadas voltadas à sustentabilidade, contribuindo para uma transição mais inclusiva, equilibrada e alinhada aos princípios da coesão territorial (Beizitere et al., 2025; Ogato et al., 2026).

Palavras-chave | Economia Circular; Educação Ambiental; Marketing Verde; Governança Territorial; Sustentabilidade.

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INOVAÇÃO SUSTENTÁVEL E CIDADES INTELIGENTES: GOVERNANÇA INTER-REGIONAL PARA A REDUÇÃO DE DESIGUALDADES TERRITORIAIS

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Resumo

Proposta | Diante das crescentes desigualdades territoriais e da necessidade de promover um desenvolvimento mais equilibrado e sustentável, as cidades inteligentes emergem como espaços estratégicos para a integração entre tecnologia, governança e inovação (Krupova et al., 2025; Marx et al., 2025). No entanto, a literatura ainda carece de abordagens que articulem o papel dessas cidades na promoção da coesão inter-regional. Nesse contexto, este estudo tem como objetivo analisar como iniciativas de inovação sustentável favorecem a concepção de cidades inteligentes para atuar como instrumentos de governança inter-regional, contribuindo para a redução de desigualdades territoriais. A incorporação de tecnologias digitais, aliada a estratégias centradas no ser humano e na sustentabilidade, pode favorecer soluções mais inclusivas, ampliando o acesso a serviços, recursos e oportunidades entre diferentes regiões (Sánchez-Sánchez et al., 2025).

Metodologia/Abordagem | Para alcançar o objetivo proposto, pretende-se utilizar uma abordagem qualitativa, de caráter exploratório e descritivo, utilizando como estratégia o estudo de casos múltiplos (Demo, 2022; Malhotra, 2019; Yin, 2015), comparando as cidades de Leiria e Condeixa, em Portugal. A seleção dos casos se justifica pelas diferenças em escala urbana, maturidade digital e estrutura de governança, permitindo analisar como iniciativas de cidades inteligentes incorporam práticas de inovação sustentável em diferentes realidades territoriais. A coleta de dados será realizada por meio de entrevistas semiestruturadas com atores envolvidos na gestão municipal ou entidades de inovação, observação indireta e análise documental de políticas públicas, planos urbanos e relatórios institucionais. A análise dos dados será conduzida por meio da técnica de análise de conteúdo, conforme Bardin (2011). A abordagem comparativa entre os casos busca evidenciar como diferentes níveis de maturidade urbana influenciam a capacidade de promover inovação sustentável e contribuir para a redução de desigualdades territoriais.

Resultados Esperados | Espera-se que os resultados evidenciem que a integração entre inovação sustentável e cidades inteligentes pode fortalecer mecanismos de governança inter-regional, promovendo maior articulação entre diferentes territórios e ampliando a capacidade de resposta a desafios comuns (Menzori et al., 2025). Além disso, acredita-se que tais iniciativas contribuam para reduzir desigualdades territoriais ao democratizar o acesso a tecnologias, serviços urbanos e oportunidades de desenvolvimento sustentável. (Gaur & Yadav, 2025). O estudo também pretende demonstrar que abordagens centradas no ser humano e na sustentabilidade são fundamentais para garantir que os benefícios das cidades inteligentes sejam distribuídos de forma mais equitativa (Lopes et al., 2025).

Palavras-Chave | Cidades Inteligentes; Inovação Sustentável; Governança Territorial; Coesão Regional; Sustentabilidade.

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SOBREVIVENDO AOS DESASTRES: RESPOSTAS INTERREGIONAIS A EVENTOS CLIMÁTICOS EXTREMOS E RECONSTRUÇÃO TERRITORIAL**Gustavo de Oliveira Hanauer**

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Resumo

Proposta | Eventos climáticos extremos têm se intensificado globalmente, evidenciando vulnerabilidades territoriais e desafiando a capacidade de resposta de diferentes regiões. Um exemplo internacional é o estado do Rio Grande do Sul (Brasil), que em 2024 enfrentou o maior desastre climático de sua história, com impactos generalizados sobre infraestrutura, economia e população, enquanto a região de Leiria (Portugal), em 2026, vivencia um processo recente de reconstrução após a passagem de um evento extremo caracterizado por elevada intensidade e destruição territorial. Nesse contexto, o objetivo deste estudo será analisar como diferentes territórios respondem e se mobilizam diante de eventos climáticos extremos, com ênfase nos arranjos de governança, nas estratégias de reconstrução e nos processos de adaptação territorial. Buscar-se-á discutir como diferentes territórios respondem, aprendem e se reconfiguram diante de eventos extremos, articulando essas experiências ao debate sobre governança interregional, coesão territorial e sustentabilidade.

Metodologia/Abordagem | A pesquisa terá uma abordagem qualitativa, de natureza exploratória, fundamentada em análise documental e revisão de literatura (Demo, 2022; Malhotra, 2019; Yin, 2015). Pretende-se utilizar dados secundários provenientes de relatórios institucionais, artigos científicos e produções acadêmicas, com destaque para estudos sobre os eventos ocorridos no Rio Grande do Sul em 2024. Para o caso de Leiria, dada a recente ocorrência do evento, pretende-se analisar fontes jornalísticas e registros preliminares, para a construção de um diagnóstico inicial do desastre e de suas implicações territoriais. A análise será conduzida pela técnica de análise de conteúdo (Bardin, 2011), por uma perspectiva comparativa, devendo orientar-se por categorias como vulnerabilidade, resposta institucional, reconstrução e resiliência, articuladas ao conceito de governança interregional.

Resultados Esperados | Espera-se evidenciar que a sobrevivência a desastres climáticos ultrapassa a dimensão emergencial, configurando-se como um processo contínuo de reconstrução e aprendizagem territorial (Malagri et al., 2025; Martins, 2025). Espera-se evidenciar também que estratégias eficazes podem estar associadas à integração entre diferentes níveis de governança, à articulação entre atores públicos e privados e à incorporação de conhecimento científico no planejamento territorial (Faria & Skamvetsakis, 2025). Ademais, pretende-se demonstrar que a troca de experiências entre regiões, especialmente em contextos interregionais, constitui um elemento-chave para o fortalecimento da resiliência e para a redução de desigualdades territoriais, contribuindo para a construção de sistemas mais adaptativos, sustentáveis e socialmente inclusivos (Konzen et al., 2025; Martins, 2025).

Palavras-chave | Eventos climáticos extremos; Governança interregional; Resiliência territorial; Sustentabilidade; Desigualdades territoriais.

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MOBILIDADE INCLUSIVA E SUSTENTÁVEL EM TERRITÓRIOS RURAIS DE BAIXA DENSIDADE: O CASO DA ALDEIA HISTÓRICA DE CASTELO NOVO**Paula Reis**

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Objetivos | A mobilidade inclusiva e acessível tem vindo a assumir crescente importância nos processos de desenvolvimento territorial e turístico, particularmente nos territórios rurais de baixa densidade. Este interesse reflete-se na sua integração em políticas públicas e na construção de soluções inovadoras que promovam acessibilidade, coesão social e sustentabilidade ambiental em destinos turísticos histórico-culturais. A presente proposta tem como objetivo analisar as dinâmicas de mobilidade inclusiva e sustentável na Aldeia Histórica de Castelo Novo, centrando-se nas perceções, experiências e expectativas da comunidade local relativamente ao projeto-piloto “Mobilidade urbana inclusiva e sustentável”, baseado na utilização de veículos elétricos, livres de emissões de CO₂ e ruído. Este projeto resulta de uma parceria entre a entidade gestora do destino turístico, o Município do Fundão e a Renault, visando melhorar a mobilidade entre as Aldeias Históricas de Portugal e beneficiar residentes, visitantes e agentes económicos.

Metodologia | Em termos metodológicos, adota-se uma abordagem mista, combinando análise quantitativa e qualitativa. A componente quantitativa assenta na análise de dados estatísticos das reservas das viaturas elétricas por utilizadores (residentes, visitantes e empresários), redução de emissões de CO₂ e indicadores de atividade turística entre abril de 2022 e dezembro de 2025. A componente qualitativa centra-se na análise dos resultados obtidos a partir de um focus group com a comunidade local, com o objetivo de compreender as perceções sobre mobilidade quotidiana, acessibilidade para grupos vulneráveis, impactos do turismo e adequação das soluções às suas necessidades.

Resultados Esperados | Os resultados preliminares evidenciam uma forte dependência do automóvel particular, condicionada pela morfologia da aldeia e pela escassa oferta de transportes públicos, apesar da existência de infraestruturas rodoviárias e ferroviárias. Simultaneamente, os dados de monitorização do projeto revelam uma adesão significativa à utilização de viaturas elétricas entre 2022 e 2025, com reduções mensuráveis de CO₂. O focus group permitiu identificar os principais constrangimentos à mobilidade no território, bem como avaliar os benefícios do projeto e a importância de soluções integradas que conciliem mobilidade suave, qualidade de vida dos residentes, experiência turística e preservação patrimonial. De forma global, os resultados demonstram que soluções integradas de mobilidade inclusiva e sustentável podem contribuir para a melhoria da qualidade de vida da comunidade e para o reforço da competitividade empresarial em territórios de baixa densidade, aumentando também a sua atratividade turística. Verifica-se, ainda, o alinhamento da entidade gestora do destino com as orientações europeias para o desenvolvimento sustentável em territórios rurais de baixa densidade.

Palavras-chave | Mobilidade, inclusão, turismo, sustentabilidade, Aldeias Históricas de Portugal.

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ENVIRONMENTAL VULNERABILITY AND DEVELOPMENT IN AFRICAN SMALL ISLAND STATES

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Abstract

Purpose | Climate change is one of the greatest challenges of our time, disproportionately affecting various regions of the globe where small island states are located. This disproportionate impact is largely due to their insular nature, their small size, and their heavy reliance on climate-sensitive sectors, such as tourism. This article examines the empirical relationship between climate change—using the variables greenhouse gas emissions, precipitation, and surface temperature—and economic development in African Small Island Developing States. More specifically, we aim to investigate the vulnerabilities of African Small Island Developing States to climate change, assess the effects of climate change on the economies of these states, and identify the main climate change mitigation strategies adopted by them.

Methodology | Methodologically, the research was based primarily on an analysis of the existing global literature on SIDS and African SIDS. To answer our research question, we employed a quantitative approach using secondary data, statistical analysis, and econometric modeling. More specifically, we used panel data methodology, data from the World Bank's World Development Indicators, and climate data from the Global Data Lab covering the period from 1990 to 2022.

Expected results | The results of our estimation using fixed-effects instrumental variable methods show the existence of statistically significant individual effects in the countries analyzed, suggesting the presence of a common pattern of climate change's impact on economic growth. More specifically, we find that for these countries as a whole, the precipitation and temperature variables have the expected sign, while greenhouse gas emissions have a surprisingly positive impact on the economic performance of these countries.

Keywords | climate change, SIDS, development, instrumental variables, climate vulnerability.

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HOW TELEWORK SHAPED REGIONAL LABOUR MARKETS IN PORTUGAL DURING COVID-19

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Abstract

Purpose | This paper examines the extent to which telework acted as a mechanism of labour market resilience in Portugal during and after the COVID-19 crisis, and how its diffusion reinforced long-standing spatial inequalities. Engaging with recent research on uneven development, technological change, and labour market dualisation, we analyse how digital transitions have interacted with Portugal's core-periphery structure.

Methodology/Approach | Using quarterly microdata from the Labour Force Survey (INE) for the NUTS II regions (2016-2024), we combine observed telework adoption (2020-2025) with pre-pandemic structural exposure indicators, based on occupational composition and teleworkability, and measures of regional digital infrastructure. We assess their joint effects on employment and unemployment levels, unemployment duration, effective working hours, net income, and contract stability, among others. Methodologically, we apply difference in differences (DiD) event study models and triple difference regressions to capture how telework availability, digital readiness, and specific policy windows shaped regional labour market trajectories. To account for shock heterogeneity, we integrate epidemiological indicators (incidence, transmission rate, vaccination progression) and conduct event studies around lockdowns, phased reopenings, and major vaccination milestones.

Expected Results | We anticipate that while telework mitigated employment losses predominantly in knowledge-intensive services, while structurally lagging areas, characterized by weaker digital infrastructure and more rigid occupational structures, benefited far less. The digital divide thus amplified pre-existing asymmetries, entrenching centre-periphery dependencies and limiting the scope for regionally balanced development. By situating the Portuguese experience within broader debates on digital capitalism, labour market stratification, and spatial political economy, this study contributes to understanding the constraints and possibilities of alternative regional development strategies in the post-pandemic era.

Keywords | Telework, Regional Resilience, Labour Market, Spatial Inequality, Portugal.

**INVESTIMENTO ESTRANGEIRO NO SETOR VITIVINÍCOLA DA REGIÃO
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(Portugal)lcorreia@utad.pt**Resumo**

Objetivo | O investimento direto estrangeiro (IDE) tem assumido um papel central na reconfiguração das economias contemporâneas, particularmente em setores intensivos em capital, conhecimento e orientação internacional, como a indústria vitivinícola. Em territórios de forte identidade histórica e patrimonial, a entrada de capital estrangeiro gera dinâmicas económicas complexas e combina oportunidades de modernização, reforço da competitividade e integração em cadeias de valor globais com desafios associados à sustentabilidade territorial e à preservação da identidade regional. Neste contexto, a Região Demarcada do Douro (RDD), reconhecida como a mais antiga região vitivinícola demarcada do mundo e cuja paisagem cultural se encontra classificada como Património Mundial pela UNESCO desde 2001, constitui um caso de estudo particularmente relevante, distinguindo-se pela produção de vinhos de elevada qualidade, com especial destaque para o Vinho do Porto, pela crescente diversificação de mercados e pela afirmação do enoturismo enquanto vetor estratégico de desenvolvimento. Este trabalho assume como objetivo principal analisar o papel do IDE na indústria vitivinícola da RDD, identificando empresas com participação de capital estrangeiro e avaliando o seu desempenho através da análise de indicadores económico-financeiros. Adicionalmente, esta investigação pretende contribuir para a redução das lacunas existentes em matéria de literatura científica sobre IDE especificamente dedicada a esta região.

Metodologia | Metodologicamente, a investigação adota uma abordagem mista, através da aplicação de métodos quantitativos e qualitativos. A componente quantitativa baseia-se na análise de indicadores económico-financeiros, no período 2018-2024, extraídos da plataforma Sistema de Análise de Balanços Ibéricos (SABI) e do Instituto dos Vinhos do Douro e do Porto. O estudo empírico incide sobre seis empresas representativas do setor vitivinícola duriense, as quais, em conjunto, concentraram cerca de 37,5% do volume total de vendas de vinho da RDD em 2024, evidenciando o peso económico significativo das empresas em estudo.

Resultados Esperados | Os resultados revelam uma marcada heterogeneidade no desempenho económico-financeiro das empresas analisadas. Verificam-se diferenças substanciais ao nível da dimensão patrimonial, volume de vendas, estrutura de capital, rentabilidade económica e financeira e eficiência operacional. A componente qualitativa consistiu na realização de entrevistas a representantes das empresas identificadas e demonstra as motivações para o investimento na RDD, que transcendem a lógica estritamente financeira, integrando fatores como o prestígio internacional da mesma e a valorização da origem. Os entrevistados salientam ainda contributos associados à profissionalização da gestão, ao reforço da capacidade financeira e à consolidação da presença em mercados internacionais. Em simultâneo, são identificados desafios estruturais, designadamente a escassez de mão de obra qualificada, a complexidade regulamentar e a volatilidade dos mercados globais.

Palavras-chave | Investimento estrangeiro; Região Demarcada do Douro; Setor vitivinícola; Desenvolvimento regional.

NARRATIVAS Y RUTAS COMERCIALES EN LA FRONTERA LUSO-CASTELLANA (SS. XIV-XVIII)

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Resumen

Objetivo | Este estudio explora la conexión entre redes de comercio y mecenazgo artístico-cultural de comerciantes ibéricos en la frontera luso-castellana durante los siglos XIV al XVIII. A través de una perspectiva histórica, se examina cómo las narrativas funcionaron como herramientas clave. Estas sirvieron para reducir la incertidumbre financiera y establecer redes de confianza. Asimismo, se analiza la influencia de estos imaginarios en la cohesión territorial de la región. La investigación parte de la hipótesis de que la capitalización de estos imaginarios históricos y patrimoniales actúa como un precursor para el desarrollo regional, sobre todo, en zonas rurales.

Metodología | A través de una perspectiva histórica, se examina cómo las narrativas funcionaron como herramientas clave para articular la economía, la gobernanza local y el valor simbólico del patrimonio, permitiendo a las élites lidiar con las tensiones. El análisis se sitúa en el enclave de "A Raia", donde la herencia de estos relatos afectó directamente a la planificación territorial y al turismo actual (Maldonado-López et al., 2025). Tomando como referencia los estudios sobre élites mercantiles de Rozas-Español (2023) y Aladro et al. (2022), se analizan crónicas y contratos de mecenazgo. Por ejemplo, los relatos vinculados a la financiación de infraestructuras de carácter defensivo y agrícola en la frontera, utilizados por las familias mercantiles para proyectar una imagen de control territorial y seguridad logística. Este fenómeno destacó en regiones como Toledo o en ferias castellano-leonesas durante la transición a la Modernidad.

Resultados Esperados | Bajo esta premisa, se argumenta cómo en áreas rurales con claves culturales específicas, se proponen prácticas de gestión del patrimonio inmaterial. Y cómo la recuperación de relatos para el diseño de productos turísticos permite fomentar el desarrollo sostenible, evitando la necesidad de ejecutar grandes infraestructuras físicas. En resumen, los avances se consolidan cuando las demandas de competitividad turística fuerzan a las instituciones a actuar. El proceso convierte la reforma en un acuerdo entre la memoria histórica de los mercaderes y el interés por la cohesión económica y social luso-castellana.

Palabras clave | Imaginario colectivo, Redes de comercio, Cohesión territorial, Frontera luso-castellana, Turismo sostenible.

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DEVELOPING AN AGRICULTURAL DIGITAL MATURITY ASSESSMENT MODEL: A FRAMEWORK FOR MEASUREMENT AND POLICY SUPPORT

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Abstract

Purpose | The digital transformation of agriculture is widely acknowledged as a key enabler of productivity, sustainability, and resilience. Yet, both research and policymaking remain constrained by the absence of robust, standardised tools to assess digital maturity at farm level. This paper addresses this gap by proposing the Agricultural Digital Maturity Assessment Model (ADMA), a structured and policy-oriented framework designed to measure and compare the level of digitalisation across agricultural systems. By shifting the focus from technology adoption to measurable transformation outcomes, the study contributes to a more grounded understanding of digital agriculture.

Methodology/Approach | The study follows a model development approach combining a structured literature review with conceptual modelling and indicator operationalisation. The ADMA is built around six core dimensions: (i) connectivity and infrastructure, (ii) technology adoption, (iii) data utilisation, (iv) automation, (v) digital skills, and (vi) system integration. Each dimension is assessed through a five-level maturity scale, allowing farms to be positioned along a continuum ranging from traditional to autonomous systems. The framework is designed to ensure comparability across contexts while remaining sensitive to sectoral heterogeneity.

Expected Results | The model provides a scalable and operational tool for benchmarking digital maturity in agriculture. It enables cross-sectional comparison and longitudinal monitoring, supporting both empirical research and policy evaluation. Furthermore, the ADMA is positioned as the analytical backbone of a proposed National Observatory for Agricultural Digitalisation in Portugal, facilitating systematic data collection and continuous policy feedback loops. Importantly, the framework enhances policy design by allowing decision-makers to identify structural gaps, target interventions more precisely, and differentiate support measures according to maturity levels across farms and territories. By linking digital maturity profiles with policy instruments, the model contributes to more tailored, evidence-based, and outcome-oriented digitalisation strategies. Ultimately, it supports a shift from generic technology promotion towards more nuanced policies that foster inclusive, context-sensitive, and impact-driven agricultural transformation.

Keywords | Digital agriculture, digital maturity, smart farming, model development, policy evaluation.

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HOW CAN HIGHER EDUCATION POLICIES PROMOTE PHYSICIAN RETENTION IN UNDERSERVED AREAS IN PORTUGAL? A SYSTEMATIC REVIEW OF INTERNATIONAL EVIDENCE

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Abstract

Purpose | To analyze how higher education policies in medical training can contribute to the retention of physicians in underserved areas in Portugal, through a systematic review of international evidence.

Methods | A systematic literature review was conducted following the PRISMA guidelines. The search was carried out in the Scopus, PubMed, and Web of Science databases, without time restrictions, using keywords related to health policy, education, physician retention, and rural or underserved areas. Forty studies were included and categorized according to five stages of medical training: access to medical school, undergraduate medical education, general internship, specialty training, and professional practice as a specialist.

Results | The review identified several educational strategies associated with increased physician retention in underserved regions. Key interventions include regional quotas for medical school admission, scholarships tied to service in rural areas, decentralized medical education in community settings, mandatory rural clinical rotations, and regionally based internship and specialty programs. The findings are interpreted through the lenses of Human Capital Theory, Incentive Theory, and WHO guidelines for health workforce retention.

Conclusions | Integrated and territorially sensitive educational policies can play a strategic role in addressing geographic imbalances in physician distribution. For Portugal, recommendations include adopting regional admission criteria, expanding decentralized clinical training, aligning residency positions with underserved areas, and strengthening career support for specialists in remote regions. Educational policies aligned with national health planning may enhance equity and sustainability in healthcare workforce distribution.

Keywords | Health policy, education, retention, physicians, rural and underserved areas.

PLANNING FOR NATURE RESTORATION: CONTRIBUTIONS FROM LISBON METROPOLITAN AREA TO THE URBAN AGENDA

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Abstract

Purpose | The work carried out by the urban agenda for EU – greening cities partnership focuses on the implementation of EU Nature Restoration Regulation 2024/1991 (European Parliament and Council of the Europe, 2024), a fundamental pillar of the European Green Deal (European Commission, 2019). The Lisbon Metropolitan Area (LMA) is member, helping to drive policies that support municipalities in meeting the targets set out in Article 8 of the regulation. By 2030, the regulation requires a halt to net losses of urban green space and maintenance of tree canopy cover, with a progressive increase by 2050. The initiative aims to strengthen the European Commission’s ambition by developing a self-assessment guide, converging legislation on land use management strategies and green infrastructure at municipal and metropolitan level.

Methodology/Approach | LMA attended consortium meetings and a series of technical webinars on monitoring and data for ecosystem restoration (Greening Cities Partnership, 2025). The methodological approach focused on the urban nature planning cycle proposed by Kapetas *et al.* (2025), assessing three essential dimensions; 1) data – analysis of cities’ capacity to increase biodiversity; 2) governance - alignment of land management instruments with future urban nature plans; 3) financing - identification of barriers to accessing funds for Nature-Based Solutions. Given the gaps between current policies and the requirements of the regulation, the LMA validated the proposed tools.

Expected Results | The results indicate the guide favours the systematisation of data, simplifying the complexity of the regulation. It is hoped that the guide will promote the transition from static planning to dynamic management, “aligned with European objectives, accelerating the transition to greener, healthier and more resilient urban environments” (Kapetas *et al.*, 2025:3). The results suggest that the “Urban Nature Plan should be collaborative in the long term, integrating city development factors such as mobility, health, climate, among others, rather than being an isolated document”(Kapetas *et al.*, 2025:9). It is concluded that the metropolitan scale is the appropriate level for coordinating the implementation of plans, like metropolitan regions such Paris and Barcelona.

Keywords | Nature restoration, Regulation (EU) 2024/1991, Greening Cities, Lisbon Metropolitan Area, Urban nature plans.

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PROFILING VISITORS TO ENOGASTRONOMIC EVENTS IN RURAL DESTINATIONS: INSIGHTS FROM NORTHERN, PORTUGAL

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Abstract

Purpose | Enogastronomic events have increasingly assumed a pivotal role in regional development. Beyond enhancing the visibility of destinations among potential visitors, these events act as catalysts for the promotion and improvement of infrastructure and services associated with the agri-food sector. This dynamic is particularly significant in rural contexts, where such initiatives contribute to local economic diversification and territorial valorisation (Rachão et al., 2024). The main goal of this study is to explore the sociodemographic and behavioural profiles of attendees at two enogastronomic events held in Ponte de Lima, a historic town in northern Portugal renowned for its gastronomic and viticultural traditions. Notably, the town's dish, "Arroz de Sarrabulho à Moda de Ponte de Lima", was recognised as a Traditional Speciality Guaranteed (TSG) by the European Union in 2025, further reinforcing its cultural and gastronomic significance (European Commission, 2025).

Methodology/Approach | The methodology adopted in this study is grounded in a quantitative approach, involving the administration of a structured questionnaire to participants attending two food and wine events in the municipality of Ponte de Lima: the Gastronomic Weekend of Arroz de Sarrabulho à Moda de Ponte de Lima and the Domingo Gordo Gastronomic Weekend, held in January and February 2024, respectively. Data collection was carried out in situ among visitors, using a convenience sampling technique. A total of 102 valid questionnaires were obtained and subsequently analysed.

Expected Results | The findings reveal that enogastronomic motivations draw a significant proportion of visitors, placing considerable value on the expected experiences, particularly during the low tourist season. Moreover, participants reported prior attendance at similar events in the region, suggesting sustained interest and loyalty. Word-of-mouth, specifically recommendations from family and friends, emerged as the predominant channel for event awareness. This research contributes to the academic literature on enogastronomic tourism by addressing a gap in knowledge concerning visitor profiles in smaller rural destinations. It offers practical insights for event organisers, tourism professionals, and local stakeholders aiming to enhance event planning, marketing strategies, and regional tourism development.

Keywords | Enogastronomy; rural destinations; events.

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NETWORK DYNAMICS AND ECONOMIC ACTORS IN THE REGIONAL DEVELOPMENT OF VISEU DÃO LAFÕES

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Abstract

Purpose | This study examines how economic actors and their networked relationships influence the regional dynamism of Viseu Dão Lafões (VDL), a medium-sized Portuguese subregion marked by internal asymmetries and diverse socioeconomic profiles. The research pursues three main objectives: (i) mapping the key actors within VDL's development ecosystem; (ii) analysing cooperation patterns, governance practices, and interorganizational linkages that shape territorial performance; and (iii) assessing how these relationships align with public policy instruments, particularly those of Portugal 2030, to understand how local capabilities transform resources into development outcomes. In doing so, the study contributes to ongoing debates on uneven development within Portugal and the importance of multilevel governance for balanced territorial growth. The theoretical foundation draws on two strands. First, Portugal's persistent regional asymmetries—especially between coastal and interior areas—situate VDL within broader discussions about the conditions that allow medium-sized territories to sustain resilient development paths. Second, contemporary regional policy emphasizes actor-centred governance, collaboration, and strategic use of structural funds as mechanisms to strengthen competitiveness and cohesion. In this perspective, municipal governments, the Intermunicipal Community (CIM), business associations, tourism entities, development agencies, and higher education institutions form the core of VDL's capability set. Their interactions, coordination quality, and network density shape knowledge flows, strategic alignment, and the ability to implement policy. VDL exhibits a heterogeneous internal structure: Viseu performs strongly in education, health, human capital, and cultural provision, while neighbouring municipalities face structural vulnerabilities. These contrasts justify examining how uneven capacities influence cooperation, dependency, and territorial spillovers. VDL thus offers a relevant case to understand how networks can reinforce central strengths while addressing peripheral fragilities.

Methodology/Approach | The research employs a mixed-methods design, combining qualitative insights from semi-structured interviews with quantitative indicators that capture measurable territorial trends. This approach reflects a methodological stance that views scientific inquiry as both empirical and interpretative, engaging with the lived realities of regional actors. Portugal 2030, with its emphasis on cohesion, innovation, and green-digital transitions, creates a policy context in which coordination and network quality are decisive. For VDL, this means translating strategic ambitions at the Centro 2030 and VDL 2030 scales into coherent project portfolios. The actor-network lens helps identify how actors interpret strategy, form coalitions, and navigate coordination frictions such as resource competition or administrative bottlenecks.

Expected Results | Expected outputs include a systematized mapping of public, private, and knowledge institutions; identification of key coordinators and brokers; and evidence on cooperation patterns and governance practices. The study also compiles major enablers and constraints affecting development prospects. By centring on network dynamics, it reframes regional development around interactions—who collaborates with whom, how, and with what outcomes—offering insights for evidence-based planning in VDL and contributing to broader debates on territorial cohesion and competitiveness.

Keywords | Viseu Dão Lafões (VDL), Regional development, Governance networks, Portugal 2030, Territorial cohesion, Multilevel governance, Actor-network.

DESAFIOS E OBSTÁCULOS DAS EMPRESAS À INOVAÇÃO E AO DESEMPENHO COMPETITIVO EM TERRITÓRIOS RURAIS**Maria Manuela Natário**

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Objetivo | O desenvolvimento local depende da interação existente entre um conjunto de fatores: económicos, sociais, institucionais e ambientais, desempenhando as empresas rurais um papel fundamental no desenvolvimento das regiões. Estas, ao valorizarem os recursos locais e promoverem uma diversidade de atividades (agricultura, turismo rural, artesanato...) fomentam a criação de uma dinâmica económica, a criação de emprego e a fixação da população, com consequências em termos da preservação da identidade cultural e do desenvolvimento sustentável das regiões. No entanto, estarão estas empresas preparadas para competir em mercados globais onde as exigências são maiores e a concorrência mais aguerrida?

O objetivo deste estudo é analisar os principais desafios e obstáculos à inovação enfrentados pelas empresas em áreas predominantemente rurais, procurando identificar as estratégias internas de gestão e de competitividade e avaliar os fatores externos que condicionam o seu desempenho e sucesso.

Metodologia | Para alcançar o objetivo utilizam-se os resultados de um questionário aplicado a 28 empresas de quatro municípios rurais (de acordo com a classificação da Associação Nacional de Municípios Portugueses de 2014: Aguiar da Beira, Moimenta da Beira, Oliveira de Frades e Vouzela, em janeiro de 2026).

Resultados | As principais dimensões a analisar são: além da caracterização geral da Empresa, Desafios Económicos e Operacionais, considerando a avaliação dos principais obstáculos enfrentados pelas empresas, incluindo acesso a financiamento, custos operacionais, escassez de mão-de-obra qualificada, dificuldades de acesso aos mercados, instabilidade económica e carga fiscal; as Estratégias de Gestão e Competitividade, identificando as estratégias adotadas pelas empresas para melhorar a competitividade, incluindo redução de custos, melhoria da qualidade, diversificação, organização interna e cooperação empresarial; a Inovação e Tecnologia considerando o papel da inovação e da tecnologia no funcionamento e competitividade das empresas; o Ambiente Externo e Apoio Institucional, através da perceção das empresas quanto ao apoio institucional, políticas públicas e infraestruturas locais; o Desempenho e Expectativas de Sucesso procurando a perceção atual de desempenho e expectativas futuras de crescimento e a Cooperação e Redes empresariais para medir a forma como as empresas se inserem nas redes e como cooperam com outras empresas.

Palavras-chave | Desenvolvimento local, Empresas rurais, Inovação, Competitividade, Áreas rurais, Estratégias de gestão, Cooperação empresarial.

A IMPLEMENTAÇÃO DO PRINCÍPIO DNSH NA ÁREA METROPOLITANA DE LISBOA: CONTRIBUTOS DO PROJETO GREEN GOV

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Resumo

Objetivo | O princípio “Não Prejudicar Significativamente” (Do No Significant Harm – DNSH), estabelecido no âmbito do Pacto Ecológico Europeu, destacou-se inicialmente pela sua aplicação no Regulamento da Taxonomia Sustentável e em diversos instrumentos de financiamento (Beltrán Miralles, M et al., 2023), tendo posteriormente sido amplamente incorporado em políticas, documentos e atos jurídicos da União Europeia (Famà, 2025). O DNSH determina que, para uma determinada atividade ser considerada ambientalmente sustentável (com consequências a nível da elegibilidade para financiamento), não deve causar danos significativos a nenhum de seis objetivos ambientais: 1) mitigação das alterações climáticas; 2) adaptação às alterações climáticas; 3) utilização sustentável e proteção dos recursos hídricos e marinhos; 4) transição para uma economia circular; 5) prevenção e controlo da poluição; 6) proteção e restauro da biodiversidade e dos ecossistemas. Este princípio é melhor compreendido como uma ferramenta de avaliação horizontal, possivelmente transformadora na prática, e conceptualmente distinta dos princípios tradicionais do direito ambiental da UE (Silva, 2025).

Metodologia | Em Portugal, a aplicação do princípio manifesta-se principalmente através de orientações técnicas dispersas (por exemplo, a Orientação Técnica n.º 9/2023 da Estrutura de Missão Recuperar Portugal), de avaliações ex ante de programas operacionais (como os PO Açores e PO Norte) e como instrumento de autoavaliação obrigatória na submissão de candidaturas a financiamento europeu. Ainda assim, a sua integração em processos como as Avaliações de Impacte Ambiental não é, até ao momento, prática generalizada. No âmbito do projeto Interreg Europe GreenGov (Green Gov, 2024), a Área Metropolitana de Lisboa (AML) tem vindo a promover, junto dos seus municípios, ações de sensibilização, diagnóstico e capacitação, com vista à integração transversal deste princípio nas suas atividades. Com base num inquérito de diagnóstico e em dois workshops dedicados à aplicação do DNSH, pretende-se analisar a forma como os municípios têm interagido com este princípio, identificando os principais desafios e possíveis estratégias de mitigação.

Resultados Esperados | Em termos gerais, embora seja reconhecida a importância de princípios integradores para orientar a sustentabilidade ambiental, a sua aplicação continua a ser incipiente, heterogênea e predominantemente motivada por obrigações regulamentares.

Palavras-chave | Princípio DNSH, Taxonomia da UE, Green Gov, Área Metropolitana de Lisboa, Capacitação municipal.

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REGIONAL DYNAMICS OF TERRITORIAL AND MULTILEVEL GOVERNANCE: A DEVELOPMENT STRATEGY

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Abstract

Purpose | The territorialisation of public policies, i.e. territory-centred policy, has become the paradigm to follow. It is based on the need to know and exploit a territory's potential knowledge, and to invest in and build institutions through a process that involves local actors. A significant part of the support provided to the municipal sphere to solve these problems is framed in integrated territorial public policies. This paper examines one specific instrument, the Strategic Urban Development Plan and aims to clarify territorial and multilevel governance and assess how this contributes to Bragança's development, explore the core projects implemented in the case study, and understand the role of municipal managers in their implementation.

Methodology/Approach | The theoretical scope was based on studies published in academic references. It sought to understand the problems of historic centers, their rehabilitation processes and interactions with governance models. For the case study, a qualitative methodology was adopted, involving semi-structured interviews to analyse the agreements between different actors levels (national, regional and local) and their perspectives on the importance of the actions carried out.

Results | The results, corroborated by semi-structured interviews with technical managers of the municipality of Bragança, concluded that the territorial and multilevel governance model strongly influenced the SUDP of Bragança.

Keywords | Governance, Policy Integration, Public Policies, Cities, Strategies.

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SUSTENTABILIDADE URBANA EM MUSEUS: UM ESTUDO NO MUNICÍPIO DE FEIRA DE SANTANA, BAHIA

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Resumo

Objetivos | Esta pesquisa tem por objetivo verificar se a gestão dos museus localizados no município de Feira de Santana, Bahia, Brasil, adota práticas capazes de contribuir para a sustentabilidade urbana local, relacionadas às dimensões econômica, cultural, ambiental e social. De modo específico, analisa as abordagens e conceitos da sustentabilidade, os fundamentos de sua aplicação nos espaços urbanos, bem como a sua incorporação pelas instituições museológicas, interligando a Agenda 2030 e as normas jurídicas brasileiras. Tal análise permitiu compreender que, apesar da sustentabilidade ainda não ter um conceito preciso, enquanto valor, seu sentido aponta para a necessidade da preservação dos recursos naturais da Terra. O estudo também apresenta a trajetória histórica dos museus brasileiros e da museologia enquanto campo de conhecimento, evidenciando como a sustentabilidade vem sendo progressivamente incorporada a esse contexto. O reconhecimento internacional da importância do tema (Unesco, 2018; Icom, OCDE, 2019; Ibermuseus, 2019) fez com que, na definição de museu estabelecida pelo Conselho Internacional de Museus, conste especificamente o dever de fomento à sustentabilidade, o que reforça a relevância da pesquisa para além da academia, com potencial de subsidiar o planejamento e as práticas das entidades museais. O presente estudo, quanto à sua natureza, caracteriza-se como pesquisa aplicada, pois se utilizou de conhecimentos existentes para fins de aplicação prática.

Metodologia | Para o alcance dos objetivos, classifica-se como uma pesquisa exploratória, com abordagem quali-quantitativa, recorrendo-se, para sua condução, ao estudo de casos múltiplos, com uso de técnicas de pesquisa bibliográfica e documental. Também foram realizadas atividades de campo para o registro fotográfico dos museus participantes.

Resultados Esperados | Os resultados obtidos por meio da aplicação de questionários às entidades indicam que a sua gestão adota práticas pontuais distribuídas de maneira heterogênea nas dimensões da sustentabilidade, o que permitiu concluir que sua contribuição para a sustentabilidade urbana local é limitada e não institucionalizada.

Palavras-chave | Museus, Sustentabilidade, Sustentabilidade urbana.

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DISENTANGLING TECHNOLOGY-DRIVEN TRADE BETWEEN SPAIN AND THE CPLP: AN EMPIRICAL ASSESSMENT USING GRAVITY MODEL

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Abstract

Purpose | Several works have been developed on the factors that determine trade flow between countries by technology intensity, but few have focused on Spain and the Community of Portuguese-Speaking Countries (CPLP) countries, particularly when ties between them have been improved with the recent appointment of Spain as an associate observer within the community. This study examines the main factors that determine export-oriented technological change, differentiating data on export by technological content (high-tech, medium-tech and low-tech export).

Methodology/Approach | Using an augmented gravity model, the analysis incorporates variables such as GDP, bilateral exports by export technological content, geographical distance, diplomatic disagreement and product-level technology classifications to assess the determinants of trade flows and identify unexplored potential.

Expected Results | The empirical results reveal substantial heterogeneity across partners and technology groups, highlighting the relevance of factors such as effective distance, market size and technological content in shaping bilateral trade. The findings suggest the existence of untapped opportunities to expand Spain-CPLP technology trade through targeted policies aimed at reducing trade frictions, enhancing logistical connectivity, and fostering cooperation in technology-intensive sectors. Policy implications are discussed with a view to strengthening Spain's strategic integration with CPLP economies.

Keywords | International trade, Spain-CPLP relations, Technology-intensive products, trade competitiveness, Gravity model.

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MAPPING HEALTH INEQUALITIES ACROSS EUROPEAN REGIONS

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Reducing health inequalities is a core objective of European public policy, yet access to healthcare remains uneven across territories. This paper analyses territorial patterns of self-reported unmet medical need across EU NUTS-2 regions over 2021–2023 and their association with key socio-economic conditions using Eurostat data. Cross-sectional OLS, short-panel fixed-effects models, and complementary machine-learning approaches are applied. Results show that unmet medical need is territorially concentrated and varies across welfare regimes, with unemployment as the most robust positive correlate and GDP per capita negatively associated. Diagnostic checks confirm the robustness of these findings and their usefulness for territorial monitoring.

Keywords | Unmet medical need, Health inequalities, EU NUTS-2 regions, Territorial patterns, Socio-economic determinants, Eurostat data, Econometric analysis.

INVESTIGATING TERRITORIAL MISMATCHES BETWEEN POPULATION AGEING AND HEALTHCARE RESOURCES: A PROVINCIAL ANALYSIS**Simona Cafieri**ISTAT (Italy)
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Population ageing poses increasing sustainability challenges for healthcare systems, requiring analytical frameworks capable of capturing complex, non-linear, and geographically heterogeneous dynamics. This study develops an AI-enhanced, territorially informed statistical framework to assess healthcare sustainability under demographic ageing at the provincial level in Italy. The analysis relies on a comprehensive provincial-level dataset, derived from Istat survey data, covering demographic structure, healthcare supply, service utilization, socio-economic conditions, and household characteristics for all Italian provinces. Methodologically, the study compares traditional regression approaches (OLS, Ridge, and LASSO) with advanced machine learning models (Random Forest and XGBoost) to identify key determinants of healthcare demand and model complex nonlinear relationships. Model performance is assessed through cross-validation and variable importance analysis. To address territorial disparities, a clustering strategy is applied to detect structural mismatches between ageing pressure and healthcare capacity across provinces. The clusters are interpreted in terms of demographic, social, and healthcare profiles, highlighting areas where social and household factors—such as living arrangements and isolation—significantly influence healthcare utilization. The findings provide place-based policy implications, suggesting the need for differentiated interventions aimed, on the one hand, at reducing social isolation and, on the other, at strengthening healthcare infrastructure and access to services in more fragile territories.

Keywords | Population ageing, Healthcare sustainability, Machine learning, Territorial disparities, Italy, AI-enhanced framework, Healthcare demand.

FOREIGN INVESTMENT REGULATION AND BUSINESS PERFORMANCE IN PORTUGUESE INNOVATIVE COMPANIES: EVIDENCE BY FIRM SIZE UNDER THE NEW EU FRAMEWORK

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Abstract

Purpose | Despite recent regulatory developments at the European level aimed at facilitating foreign direct investment (FDI), the inflow of foreign capital into Portugal remains predominantly focused on large enterprises, with limited impact on micro, small, and medium-sized enterprises (MSMEs). This study analyses whether the new EU regulation on FDI screening has affected key performance indicators of innovative companies in Portugal and whether these effects vary according to company size.

Methodology/Approach | For this purpose, a mixed-method approach is applied: After a descriptive analysis combining qualitative findings with quantitative indicators, Pearson correlation coefficients are used to identify potential relationships between FDI trends and firm-level variables.

Expected Results | The results show that the impact of FDI on innovative enterprises varies significantly by firm size, with large firms showing more significant benefits, while micro and small firms remain largely unaffected. These results emphasise the need for targeted policy interventions to strengthen the link between FDI inflows and the performance of smaller innovative firms. Accordingly, the paper concludes with a set of policy recommendations aimed at enhancing the inclusiveness and effectiveness of FDI policies in Portugal.

Keywords | Foreign Direct Investment (FDI), Innovative firms, Business performance and size, EU regulation, Portugal.

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GREEN INVESTMENTS AND EXPORT PERFORMANCE: REGIONAL EVIDENCE
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Abstract

Purpose | Understanding whether green investments enhance or hinder firms' competitiveness remains a crucial question in the context of the green transition. Antonietti and Marzucchi (2014) show that environmentally oriented tangible investments—particularly when combined with revenue-enhancing strategies—can increase firm-level productivity and, through this channel, raise export propensity and intensity. Yet, empirical evidence for smaller, structurally heterogeneous economies such as Portugal is still limited, especially at the regional level. This study examines the impact of green tangible investments on the export performance of Portuguese firms across the NUTS II regions of mainland Portugal. The analysis exploits two confidential micro-datasets administered by Statistics Portugal (INE): (i) the Enterprises Survey on Environment Protection and Management (IEGPA, 2010–2023), which provides detailed firm-level information on investments in pollution-control technologies and environmental management practices; and (ii) the Integrated Business Accounts System (SCIE), a comprehensive database covering economic and financial indicators for all non-financial incorporated firms. Both datasets share a unique firm identifier, enabling a merged panel suitable for micro-econometric analysis.

Methodology/Approach | Building on the structural framework of Antonietti & Marzucchi (2014), the empirical strategy consists of a two-stage approach. First, we estimate the effect of green tangible investments on firm productivity (TFP), considering potential complementarities between environmental and revenue-oriented investment motives. Second, we assess the direct and indirect effects of these investments—through productivity—on firms' export participation and export intensity. A key innovation of the study lies in incorporating territorial heterogeneity: we examine whether the translation of green investments into productivity and export gains differs across NUTS II regions, reflecting diverse industrial structures and technological capabilities.

Expected Results | The expected results will shed light on (i) whether green investments act as a driver of export competitiveness in Portugal; (ii) the regional asymmetries that condition these effects; and (iii) the implications for designing regional innovation strategies and green industrial policies that support both competitiveness and cohesion.

Keywords | Green investments; Export performance, Productivity, Regional heterogeneity, Firm-level microdata.

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EMPLOYER PERSPECTIVES ON INTERNSHIP OUTCOMES IN TOURISM AND HOSPITALITY HIGHER EDUCATION**Jorge Marques**

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Abstract

Purpose | Internships constitute a core component of tourism and hospitality (T&H) higher education, bridging academic learning and professional practice. In the Portuguese higher education system – characterised by a dual structure combining academic and professionally oriented pathways – internships play a particularly relevant role in supporting students' transition to the labour market and in addressing broader challenges related to skills alignment and social cohesion (Silva et al., 2016). Maximising their potential requires stronger collaboration among universities, employers, and students, particularly through joint curriculum design, clearly defined competency frameworks, and active supervision. Building on the authors' previous work (Quintela et al., 2024), which conceptualizes internships as key environments for competency development, this study aims to examine employers' evaluations of undergraduate internship experiences in the T&H sector in the Portuguese context.

Methodology/Approach | A structured questionnaire was administered to company-based internship supervisors who hosted undergraduate students from Universidade Portucalense. Undergraduate internships are conducted during the second semester of each academic year and last between 130 and 180 hours. A total of 69 valid responses were collected through a questionnaire assessing students' technical competencies, interpersonal skills, autonomy, adaptability, and overall performance, as well as the perceived contribution of internships to organizational activities and employability.

Expected Results | The findings reveal overall positive evaluations of students' performance, particularly regarding motivation, interpersonal communication, teamwork, and adaptability – competencies widely recognized as critical in the T&H sector (Santos et al., 2025; Hussain et al., 2024). Research highlights that both technical and soft skills are essential, with interpersonal and adaptive competencies playing a decisive role in service quality and organizational effectiveness. Employers also acknowledged the relevance of internships as a mechanism for identifying and recruiting talent, reinforcing their importance in facilitating the transition from higher education to the labor market. However, some gaps were identified in more advanced technical and problem-solving skills, suggesting the need for stronger alignment between academic curricula and industry requirements. These results point to the importance of reinforcing competency-based approaches in T&H education and promoting closer collaboration between higher education institutions and industry partners. In particular, structured feedback mechanisms and clearer expectations regarding learning outcomes may enhance the effectiveness and consistency of internship experiences. This study contributes to the literature on work-integrated learning by incorporating employers' perspectives, which remain relatively underexplored, and by providing empirical evidence to support the continuous improvement of internship design and management in T&H education, with potential implications for institutional practices and policy development.

Keywords | Tourism and Hospitality Education, Internships, Employability, Competency Development, Employer Perspectives.

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ARE TOURISTS WILLING TO SUPPORT MORE SUSTAINABLE DESTINATIONS? EVIDENCE FROM PORTUGAL AND IMPLICATIONS FOR SUSTAINABLE TOURISM AND REGIONAL DEVELOPMENT

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Abstract

Purpose | The success of sustainability-oriented destination policies depends not only on institutional action but also on tourists' willingness to support them. Previous studies show that tourists do not display the same willingness to pay more for sustainable destinations. This willingness is shaped by several factors, including gender, educational level (López-Mosquera, 2016; Kastenholz et al., 2018), travel context (Li et al., 2024), and perceived destination sustainability (Aydın & Alvarez, 2020). Against this background, this study examines whether the importance tourists attribute to sustainable destination attributes influences their willingness to pay more for improved sustainability conditions, both directly and indirectly through satisfaction with those attributes. It also analyses whether this willingness varies according to familiarity with the destination, travel motivation, and selected socio-demographic factors.

Methodology/Approach | The study is based on 318 valid questionnaires collected from tourists who had a holiday in Portugal through an online survey administered via Forms UA, in accordance with GDPR requirements. The research model is organised into three sets of variables. The first comprises antecedent and contextual variables. The second encompasses the study's central constructs: the importance attributed to sustainable destination attributes, understood as a general attitudinal orientation towards the relevance of sustainability in tourism destinations; satisfaction with the sustainable attributes of the destination visited, reflecting tourists' post-visit evaluation of their experience; and willingness to pay more for destinations with stronger sustainability attributes, interpreted as a behavioural intention to support sustainability-oriented destination development. The third comprises sociodemographic variables, which serve to profile respondents and to examine differences in sustainability-related perceptions, evaluations and behavioural intentions across distinct tourist groups. The analysis combines descriptive statistics and inferential techniques to examine group differences and relationships between variables.

Expected Results | Overall, three main results are expected, suggesting that tourists' willingness to financially support sustainability is shaped by a multifaceted set of influences. First, tourists who attribute greater importance to sustainable destination attributes are expected to be more willing to pay for destinations with stronger sustainability performance. Second, tourists who are more satisfied with the destination's sustainable attributes are also expected to be more willing to make an additional financial contribution. Third, sustainable destination attributes, satisfaction, and willingness to pay for them are expected to vary across visitor profiles, particularly according to familiarity with the destination, travel motivation, and selected trip characteristics. This study makes a theoretical contribution to the literature on sustainable destination management. It shows that tourists' willingness to pay more for sustainability should not be understood as an isolated intention, but as a response shaped by their personal characteristics, the value they attach to

sustainability in general, and their evaluation of the destination's sustainability performance. Empirically, it provides evidence on how tourists value sustainable destination attributes, how satisfied they are with them, and under what conditions they are willing to financially contribute to their improvement. Practically, it helps destination managers identify visitor segments that are more receptive to sustainability-oriented pricing. In doing so, the study speaks directly to current debates on how tourism can support more balanced destination development, reduce pressure on places and communities, and, albeit indirectly, inform governance approaches that foster more sustainable and publicly supported destination management.

Keywords | Sustainable destination management; Willingness to pay; Tourist satisfaction; Sustainability attributes; Regional development.

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SPATIAL SPILLOVERS OF HOUSING AFFORDABILITY IN TEACHER LABOUR MARKETS

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Abstract

Purpose | Teacher shortages are not randomly distributed: they cluster in urban areas serving disadvantaged populations, creating persistent pockets of educational inequality. Yet existing research treats schools as isolated units, ignoring the regional interdependencies that arise from shared labour and housing markets. This paper provides the first spatial econometric analysis of teacher shortages at the school level, examining how housing affordability drives spatial spillovers in shortage patterns and how these dynamics compound socioeconomic inequalities between schools.

Methodology/Approach | We exploit administrative panel data on 2,159 primary schools in Flanders (2018–2022), where centrally determined teacher salaries eliminate wage differentials as a confound, to isolate housing affordability as the key mechanism behind spatial sorting. Using a dynamic Spatial Durbin Model with two-way fixed effects, we decompose direct, indirect, and total effects following LeSage and Pace (2009).

Expected Results | Three findings stand out. First, teacher shortages exhibit strong spatial dependence and temporal persistence, with neighbouring schools' past shortages predicting current outcomes. Second, housing costs generate significant spatial spillovers, extending shortages well beyond the local level: housing affordability is a regional, not merely local, predictor of staffing difficulties. Third, socioeconomically disadvantaged schools face a double vulnerability: they are simultaneously less attractive workplaces and situated in housing markets that discourage teachers from the wider region. Perhaps most strikingly, the effects decomposition uncovers a mixed spatial equilibrium. Reinforcing spillovers through housing markets coexist with competitive spillovers through school attractiveness. As neighbouring schools become less attractive, a focal school's relative position improves. This distinction between spillover channels has direct policy relevance: municipal-level interventions alone will be insufficient, and regionally coordinated strategies linking education workforce planning with housing affordability are essential.

Keywords | Socio-spatial inequality, Teacher shortages, Housing affordability.

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RESIDENTS' PERCEPTIONS OF MUNICIPAL TOURIST TAXES

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Abstract

Purpose | Tourist taxes have become an important instrument in destinations facing increasing tourism pressure, particularly where environmental degradation, overcrowding, and pressure on public services are evident, contributing to more sustainable tourism management (Durán Román et al., 2024; Gökteş & Çetin, 2023; Rosselló-Nadal, 2026). From a theoretical perspective, Social Exchange Theory (SET) suggests that residents' support for tourism and related policy measures, including tourist taxes, depends on their evaluation of costs and benefits, with perceived tourism impacts playing a key role in shaping this support (Mishra & Redda, 2026; Soares et al., 2022). This study examines residents' perceptions of the municipal tourist tax in Portugal, focusing on awareness, attitudes, and preferences regarding revenue use.

Methodology | The methodology follows a quantitative empirical approach, based on a structured online questionnaire administered in 2024. A total of 214 valid responses were collected from residents across several Portuguese municipalities. The questionnaire covered awareness of the tourist tax, agreement with its application, perceived tourism impacts, opinions on revenue allocation, and sociodemographic characteristics. Attitudes were measured using Likert scales to analyse response patterns.

Results | The results show high awareness of the tourist tax, although awareness of its local application remains limited. Attitudes are generally favourable but depend on proper implementation. Residents recognize negative tourism impacts, particularly environmental pressures, and support regulatory measures. Support for the tax is linked to how revenues are used, with greater acceptance when funds are directed toward environmental protection, heritage preservation, and infrastructure. However, perceived personal benefits are limited, and most respondents report that the tax would not significantly influence their travel behaviour. These findings highlight the importance of transparency, communication, and alignment with residents' priorities to enhance acceptance and ensure long-term sustainability.

Keywords | Residents' perceptions, Social Exchange Theory, sustainable tourism, tourist taxes.

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REHABILITATING CITIES THROUGH TAXATION? OPPORTUNITIES AND CHALLENGES OF ENVIRONMENTAL TAX INCENTIVES IN PORTUGAL

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Purpose | Sustainable fiscal policy has emerged as a key tool for promoting urban development, particularly in contexts where the existing building stock requires urgent intervention. In Portugal, environmental fiscal policies aimed at urban rehabilitation have been designed as extra-fiscal mechanisms intended to encourage investment in the regeneration of degraded urban areas, while discouraging new construction and uncontrolled urban sprawl. These measures are spread across different tax typologies, including value-added tax (VAT), property taxes (municipal property tax and municipal tax on the transfer of property), and income tax, reflecting an integrated approach to sustainable urban policy. These fiscal instruments align with key Sustainable Development Goals (SDGs), particularly SDGs 11, 7, and 9. By promoting the rehabilitation of existing buildings, they enhance land-use efficiency, improve energy performance, and support the modernization of urban infrastructure, contributing to more sustainable and resilient cities. This paper aims to present Portugal's experience in implementing environmental tax incentives for urban rehabilitation, highlighting both their positive outcomes and the challenges associated with their practical application. On the one hand, these measures have played a significant role in promoting the regeneration of the built environment, contributing to territorial cohesion, environmental sustainability, and improved quality of life in urban areas. On the other hand, their effectiveness has been influenced by high levels of tax litigation, particularly regarding VAT tax incentives, which play a central role in reducing rehabilitation costs.

Methodology/Approach | The methodology adopted is based on a case study of the Portuguese tax system, combining (i) public data of environmental tax incentives associated with urban regeneration, (ii) a quantitative analysis of tax litigation related to these tax policies, and (iii) a qualitative analysis of case law regarding decisions on eligibility criteria and the interpretation of the respective legal requirements.

Expected Results | The results show significant divergences in the practical application of these measures among taxpayers, the tax authority, and the courts, often associated with the complexity of the eligibility criteria, which depend, to a large extent, on urban planning instruments and municipal land-use management practices. The findings underscore the need for a more coherent and predictable fiscal governance framework, highlighting the importance of ex-ante and ex-post evaluations of environmental tax policies. These evaluation mechanisms are essential for ensuring legal certainty, reducing litigation, and promoting the effective use of tax incentives by taxpayers, thereby achieving their extra-fiscal objectives and promoting sustainable urban development.

Keywords | Environmental fiscal policy; tax incentives; urban rehabilitation; sustainable cities; Portugal.

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GESTÃO DE RISCO E RESILIÊNCIA EM HOTSPOTS TURÍSTICOS: COMPORTAMENTOS DO VISITANTE E IMPLICAÇÕES PARA BUSCA E SALVAMENTO NO PNPG (PORTUGAL)

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Resumo

Objetivo | Os hotspots turísticos em áreas protegidas enfrentam pressões crescentes sobre sustentabilidade, governação e segurança, sobretudo quando a procura por turismo de natureza se concentra em trilhos, cascatas e zonas fluviais. No Parque Nacional da Peneda-Gerês (PNPG), incidentes em contextos de recreação outdoor podem evoluir rapidamente para situações críticas que exigem mobilização de meios de busca e salvamento (SAR) e colocam desafios à prontidão operacional e à resiliência territorial. Partindo do princípio de responsabilidade partilhada na gestão do risco em áreas protegidas, este estudo pretende (i) caracterizar a realidade dos acidentes/incidentes associados a visitantes no PNPG e (ii) identificar fatores comportamentais, informacionais e operacionais associados à prevenção e à resposta, com vista a apoiar medidas de redução do risco e de coordenação interinstitucional, incluindo contributos para instrumentos formais de planeamento (Eiras *et al.*, 2020; Gstaettner *et al.*, 2020).

Metodologia | Adotou-se um desenho sequencial de métodos mistos. Numa primeira fase, realizaram-se entrevistas semiestruturadas a entidades de socorro e apoio com intervenção no PNPG, para identificar padrões de ocorrência, causas percecionadas e constrangimentos territoriais e operacionais associados a operações SAR. Numa segunda fase, aplicou-se um questionário online a visitantes (Google Forms), construído com base na literatura e informado pelos resultados qualitativos. Os dados foram analisados em SPSS com estatística descritiva e testes não paramétricos. Recolheram-se 281 respostas por amostragem não probabilística. Foi concebido um índice de “Sentido de Responsabilidade” (8 itens) relativo a planeamento e práticas de segurança, com consistência interna robusta ($\alpha=0,874$).

Resultados Esperados | Os resultados apontam baixa experiência direta de acidente no PNPG (1,8%), embora uma proporção superior refira conhecer terceiros envolvidos em acidentes (16,4%). Verificam-se práticas de planeamento (itinerário, adequação da atividade, equipamento/vestuário, alimentação/água e consulta meteorológica), mas a maioria não comunica previamente a entidades competentes o percurso e horários previstos, fragilizando a prontidão e a eficiência da resposta. As entrevistas convergem na relevância de fatores comportamentais e de preparação (negligência, insuficiente conhecimento do terreno, inadequação de equipamento e desvalorização da meteorologia), bem como de constrangimentos territoriais/operacionais (acessos difíceis, declives/rocha, vegetação densa, meteorologia adversa e zonas sem rede/SIRESP-GSM). É ainda salientada a inexistência de um Plano Prévio de Intervenção como limitação à coordenação e otimização de recursos, reforçando a importância de mecanismos formais de responsabilidade partilhada, comunicação de risco e planeamento interinstitucional em hotspots turísticos de áreas protegidas (Eiras *et al.*, 2020; Gstaettner *et al.*, 2017; Gstaettner *et al.*, 2020).

Palavras-chave | Áreas protegidas, gestão de risco, segurança do visitante, busca e salvamento (SAR), resiliência territorial.

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ABSOLUTE CHANGES, RELATIVE PERSISTENCE: DYNAMICS OF MARKET ACCESS BY ROAD IN PORTUGAL, 1971-2020

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Abstract

Purpose | The transport geography of Portugal has changed dramatically over the past 50 years. Investment in building a modern road infrastructure — including a large motorway network — was central to this profound transformation. For example, the time required to traverse the country by road from north to south decreased by around 40% between 1971 and 2020. Building on previous work, and in the context of the TRANS_ISOLATION project, we analyse a rich dyadic dataset of $275 \times 274 / 2 = 37675$ pairs of travel times by road between mainland municipalities at the beginning of each decade since the 1970s. We are currently developing a database will contain that and other related variables, and which will be made available to the public. The database will include a market access calculator, allowing the user to define decay parameters and municipality-specific “ring” regions based on bilateral distance thresholds. This communication will present the main aspects of the database, and use it to characterise how the distribution of road-based market access evolved since the early 1970s. In particular, we will look at the evolution of the relative position of each municipality in the distribution of market access within the country and also a number of constant ring “regions of reference”, e.g., the municipalities that were within 60 or 90 minutes of travel time by road in 1971. We seek to produce a set of stylised facts that allow a fresh look at the changes of the Portuguese transport geography that took place over a half-century, offering a relevant contribution to the analysis of the broader issue of persistent regional asymmetries within the country.

Methodology/Approach | Construction of an Excel database. Visualisation through graphs and maps of GIS-derived road accessibility-related variables. Statistical analysis of (relative) market access indicators, e.g., through kernel density estimates and the calculation of quantile transition matrices. Regression analysis to estimate convergence equations.

Expected Results | Identify patterns and show the long-run permanency of spatial hierarchies. Show the lack of convergence in market access at the country level and some evidence of convergence within the interior part of country (according to our exploratory results). Identify municipalities that remained at, or were moved to the bottom of the distribution in the context of the country or of their geographical “regions of reference”. Show how the proximity to the motorway network relates to increases in market access measures.

Keywords | Roads, Portugal, transport accessibility, market access, bilateral travel times.

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CUIDADOS DE PROXIMIDADE COMO INVESTIMENTO PLACE-BASED: AVALIAÇÃO DO IMPACTO TERRITORIAL E ECONÓMICO DAS UNIDADES DE CUIDADOS NA COMUNIDADE EM PORTUGAL

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Resumo

Objetivo | A sustentabilidade do Serviço Nacional de Saúde (SNS) enfrenta desafios sem precedentes, agravados por dinâmicas de envelhecimento demográfico — com o Índice de Dependência Total a atingir o máximo histórico de 58,5 em Portugal — e por profundas assimetrias regionais. Em resposta a este cenário de pressão hospitalar, as Unidades de Cuidados na Comunidade (UCC) foram concebidas como estruturas de proximidade orientadas para a prevenção, gestão da cronicidade e intervenção socio-sanitária no domicílio. Contudo, o seu contributo económico permanece predominantemente avaliado sob uma perspetiva contabilística estrita. Inserido numa investigação doutoral, o presente estudo procura responder à seguinte questão: poderão as UCC ser conceptualizadas como um investimento territorial (place-based investment) capaz de gerar verdadeiro Valor em Saúde e garantir a sustentabilidade económica inter-regional do SNS.

Metodologia | A investigação adota um desenho de métodos mistos convergente paralelo (Convergent Parallel Design). A vertente quantitativa baseia-se num desenho quase-experimental que aplica a técnica Data Envelopment Analysis (DEA) para medir a eficiência na alocação de recursos da equipa e a produção de resultados em saúde. Os dados são extraídos de plataformas oficiais do Estado (BI-CSP, ACSS e INE) e comparam o desempenho assistencial de concelhos com intervenção consolidada de UCC face a "concelhos-espelho" de controlo (territórios rigorosamente emparelhados a nível sociodemográfico, mas sem esta intervenção). Simultaneamente, a vertente qualitativa recorre a uma amostragem intencional por variação máxima — analisando estudos de caso de UCC em contexto urbano, rural e de transição — utilizando entrevistas semiestruturadas e análise temática para explorar o papel da multidisciplinaridade e o efeito da articulação interinstitucional com parceiros locais.

Resultados Esperados | Espera-se demonstrar inequivocamente que modelos territorialmente integrados de cuidados primários geram externalidades económicas altamente positivas para o sistema, nomeadamente através da redução da afluência crónica às urgências e da mitigação dos internamentos hospitalares sociais e evitáveis (que representam, atualmente, um encargo na ordem dos 95 milhões de euros para o Estado português). A análise inter-regional evidenciará que a eficácia desta intervenção depende da sua capacidade para se adaptar às fragilidades sociais de cada território (mitigando o isolamento e as distâncias no interior rural, e a exclusão e bolsas de pobreza nos grandes centros urbanos). Concluir-se-á que o financiamento em cuidados de proximidade transcende a mera despesa assistencial, constituindo um capital territorial essencial para o alívio dos cuidadores informais, para a redução das desigualdades regionais e para a coesão social sustentável.

Palavras-chave | Cuidados de Saúde Primários; Sustentabilidade Territorial; Desigualdades Inter-Regionais; Economia da Saúde; Investimento Place-Based.

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TOURIST ACCEPTANCE OF MUNICIPAL TOURIST TAXES

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Abstract

Purpose | Tourist taxation has become an increasingly relevant policy instrument within destination management, particularly in contexts marked by overtourism and growing pressures on local resources. Rather than merely a fiscal mechanism, tourist taxes are often framed as tools to enhance sustainability and redistribute tourism-related costs (Göktaş & Çetin, 2023; Miranda et al., 2023; Ortega-Rodríguez et al., 2024). However, their effectiveness depends largely on tourists' perceptions, awareness, and behavioural responses, particularly in terms of price sensitivity and destination choice (Ortega-Rodríguez et al., 2024; Rosselló-Nadal & Sard, 2026). In this context, the present study aims to assess tourists' awareness, perceptions, and sensitivity to municipal tourist taxes in Portuguese destinations.

Methodology/Approach | A questionnaire survey was conducted in 2024 with 138 tourists, and the data were analysed using the Statistical Package for Social Sciences (SPSS) Program.

Expected Results | The findings indicate a relatively high level of awareness of the concept of tourist tax, but a lower level of awareness regarding its application in the destination visited. While respondents tend to express a moderately negative or conditional acceptance of the tax, they also acknowledge the negative impacts of tourism, particularly environmental pressure, and overcrowding. Moreover, there is strong support for allocating tax revenues to public goods, such as environmental protection and cultural heritage preservation. From a behavioural perspective, most tourists show limited willingness to change destinations due to the tax, suggesting low price sensitivity. Overall, the results suggest that tourist taxes are unlikely to significantly undermine destination competitiveness when moderate in value. Their acceptance appears to be strongly influenced by perceived fairness, transparency, and the visible reinvestment of revenues into sustainable tourism development.

Keywords | Destination competitiveness, Price sensitivity, Tourist perceptions, Tourism sustainability, Tourist tax.

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AI ADOPTION: CAPABILITY OVER INFRASTRUCTURE FIRM-LEVEL
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Abstract

Purpose | The adoption of artificial intelligence (AI) technologies by firms has become a central topic in the literature on digital transformation and technological innovation. Prior research offers competing explanations for AI adoption, alternately emphasizing access to data and digital infrastructure or firms' internal capabilities. However, firm-level empirical evidence explicitly disentangling these mechanisms remains limited.

Methodology/Approach | This study examines the factors associated with AI adoption using cross-sectional data from more than 4,000 enterprises in Portugal. The findings show that AI adoption is primarily driven by firms' analytical capabilities, reflecting realized absorptive capacity emerging from established analytical routines and learning processes rather than from discrete technology acquisition or data availability alone. While cloud computing and enterprise software adoption act as enabling conditions, the mere use of data sources does not significantly affect adoption.

Expected Results | These results reposition AI adoption as a capability-driven process and have implications for firm strategy, regional competitiveness, and capability-oriented, place-based digital policies. Although the analysis is conducted at the firm level, the findings have clear implications for regional competitiveness. If AI adoption depends primarily on firms' analytical capabilities rather than on access to infrastructure or data alone, then regions with a higher concentration of such capabilities are more likely to capture the productivity and innovation gains associated with AI. In contexts like Portugal, characterized by pronounced regional asymmetries in human capital and knowledge-intensive activities, a capability-driven pattern of AI adoption is therefore likely to reinforce existing differences in regional competitiveness, with policy implications.

Keywords | Artificial intelligence (AI) adoption, Analytical capabilities, Digital transformation, Absorptive capacity, Regional competitiveness, Portugal, Firm-level evidence.

DIGITAL TRANSFORMATION AND GREEN INNOVATION: INSIGHTS FROM CIS DATA ON PORTUGUESE REGIONAL COMPETITIVENESS**Celeste Varum**

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Purpose | In an era defined by rapid technological advances and intensifying environmental challenges, understanding the interplay between digital transformation and green innovation has become increasingly crucial. As nations and regions strive to meet ambitious sustainability targets, the integration of digital technologies into business processes offers both opportunities and complexities for fostering environmentally sustainable practices. This paper proposes an analysis of Community Innovation Survey (CIS) data from Portugal to explore the relationship between digitalization and green innovation.

Methodology/Approach | The academic literature increasingly recognizes the role of digital technologies in fostering environmentally sustainable innovation, with scholars such as Horbach et al. (2012) and Nambisan et al. (2017) emphasizing digitalization as a catalyst for green practices. However, disputes remain regarding the extent and mechanisms of this relationship; for instance, some researchers argue that digitalization may not automatically lead to more sustainable outcomes and might even increase energy consumption in certain contexts (Cai & Li, 2018).

By examining CIS data for Portugal, this study aims to contribute to the ongoing debate by identifying patterns and correlations between firms' digital adoption and their engagement in green innovation activities.

Expected Results | The results offer insights into how digitalization can enhance regional competitiveness, particularly by enabling Portuguese regions to better align with EU sustainability goals and innovate in response to environmental challenges. These findings are significant for policymakers and business leaders seeking to leverage digital transformation for sustainable regional development. The study provides a valuable foundation for future research and strategic decision-making.

Keywords | Digital transformation, Green innovation, Community Innovation Survey (CIS), Portugal, Sustainability targets, Regional competitiveness, Sustainable regional development.

RELATO DOS ODS NOS MUNICÍPIOS PORTUGUESES: DIMENSÕES INSTITUCIONAL, TERRITORIAL E DE GOVERNAÇÃO LOCAL**Sónia Monteiro**

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Objetivo | O relato dos Objetivos de Desenvolvimento Sustentável (ODS) tornou-se cada vez mais relevante na Agenda 2030, especialmente ao nível municipal, onde são implementadas muitas políticas de desenvolvimento sustentável. Os municípios têm também um papel central na monitorização e comunicação dos progressos, sendo o relato dos ODS um instrumento que promove a transparência, a accountability e a legitimidade das políticas públicas perante cidadãos e outros stakeholders. Estudos prévios sugerem que as práticas de divulgação no setor público local podem ser influenciadas por diferentes tipos de fatores, incluindo as características institucionais dos municípios, os fatores territoriais associados ao contexto geográfico e socioeconómico, as características de governação relacionadas com a liderança política local (Monteiro et al., 2025, Nicolò et al., 2024, Rieiro-García et al., 2023a-c, Bisogno et al., 2023) e fatores associados às práticas de reporting (Pizzi et al., 2021). Este estudo tem como objetivo analisar os fatores associados à qualidade do relato dos ODS nos municípios portugueses, contribuindo para uma melhor compreensão do papel da governação local na monitorização do progresso rumo à Agenda 2030.

Metodologia | A investigação adotou uma abordagem metodológica mista, combinando a análise de conteúdo com a regressão em dados de painel. A qualidade da divulgação de informação relacionada com os ODS foi avaliada através de um índice de divulgação numa escala de 0 a 3, adaptado da metodologia de Haywood e Boihang (2020). A análise incidiu sobre relatórios publicados por municípios portugueses entre 2015 e 2024, correspondente à primeira década de implementação da Agenda 2030. A nível municipal, foram considerados fatores institucionais (dimensão do município, eficiência financeira e adesão à plataforma ODSLocal), fatores territoriais (localização geográfica: litoral/interior) e fatores de governação local (género da presidência). Adicionalmente, foram analisados fatores ao nível do relato, nomeadamente a utilização de frameworks de reporting (GRI e CESOP-Local) e o tipo de relatório não financeiro utilizado.

Resultados | Os resultados evidenciam uma melhoria gradual na qualidade do relato dos ODS ao longo do período analisado. Em média, os municípios apresentam um nível intermédio de divulgação (próximo de 2), caracterizado sobretudo por informação qualitativa relativa a compromissos e iniciativas, embora com uma utilização ainda limitada de indicadores quantitativos. A nível municipal, apenas um fator institucional - a dimensão do município - apresenta um efeito estatisticamente significativo, indicando que os municípios de maior dimensão tendem a apresentar níveis mais elevados de divulgação de informação sobre os ODS. Este resultado é consistente com a teoria da legitimidade, segundo a qual as organizações mais visíveis enfrentam uma maior pressão por parte das partes interessadas e tendem a divulgar mais informação sobre as suas práticas sustentáveis, de modo a legitimar e a reforçar a sua imagem pública (Van der Waal e Thijssens, 2020). Em contraste, os fatores territoriais e de governação local não revelam efeitos estatisticamente significativos, o que sugere que as diferenças na divulgação dos ODS entre os municípios parecem estar mais associadas à capacidade institucional do que ao contexto territorial ou às características da liderança política. Por outro lado, ao nível das práticas de reporting, a utilização de frameworks estruturados, como o GRI e o referencial CESOP-Local, bem como a elaboração de relatórios de sustentabilidade, estão associadas a níveis superiores de qualidade da divulgação. Estes resultados contribuem para o debate sobre o papel da governação local na monitorização do progresso em direção à Agenda 2030, evidenciando a importância da capacidade institucional dos municípios e da utilização de estruturas de relato bem definidas para reforçar a accountability e a transparência pública.

Palavras-chave | Objetivos de Desenvolvimento Sustentável (ODS), relato de sustentabilidade, governo local, transparência pública, municípios portugueses.

Agradecimento | Este estudo foi desenvolvido no Centro de Investigação em Contabilidade e Fiscalidade (CICF) e foi financiado pela Fundação para a Ciência e a Tecnologia (FCT) através de fundos nacionais com a referência UID/04043/2025 e doi <https://doi.org/10.54499/UID/04043/2025>.

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TAX INCENTIVES FOR THE RECYCLING PRODUCTION CHAIN AS A STIMULUS TO THE CIRCULAR ECONOMY IN BRAZIL

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Abstract

Purpose | Brazil launched the Ecological Transformation Plan in 2024, which represents a set of actions and practices aimed at an economic model that incorporates the Circular Economy (CE) as a dimension of sustainability (Ministry of Finance, 2024). In this context, tax incentives can encourage society and organizations to adopt practices that prioritize economic circularity. Studies such as those by Azevedo (2017); Azevedo & Portella (2019); Vence & López (2021); David et al. (2023); Pérez et al. (2023); Garcia & Ventosa (2024); López (2024); and Dantas (2025) have integrated taxation as an incentive for environmental sustainability practices, presenting fiscal measures oriented toward a circular economy in different national contexts (Azevedo, 2017; Azevedo & Portella, 2019; Vence & López Pérez, 2021). However, the operationalization of these instruments in Brazil, especially after the beginning of the Tax Reform implementation in 2026 (Brazil, 2023; 2025), still lacks empirical evaluation. This study discusses tax strategies to strengthen the recycling production chain as an incentive for the CE, potentially contributing to the “greening” of Brazilian taxation (Azevedo & Oliveira, 2025)

Methodology/Approach | Through a qualitative approach conducted via bibliographic and documentary research on official platforms and on the Partnerships Portal of the Ministry of Management and Innovation in Public Services (2026).

Expected Results | In 2021, Brazil established the Recycling Incentive Law (LIR), aimed at promoting recycling through tax benefits (Brazil, 2021), in line with international initiatives observed in European countries such as Portugal (David et al., 2023 & Dinis, 2024) and Spain (Pérez et al., 2023; Garcia & Ventosa, 2024). Regulated in 2024, the LIR allows individuals and legal entities taxed under the real profit regime to deduct part of their income tax due when supporting projects approved by the Ministry of the Environment and Climate Change (Brazil, 2024). Starting in 2025, the first projects were approved and, by the end of this research, 304 proposals had been approved, of which 292 were in the fundraising phase and four were under implementation, two carried out by business corporations and two by private associations. The projects under implementation totaled R\$7.5 million in approved funding, having raised approximately R\$1.5 million through the LIR. The projects include actions such as public awareness initiatives, production of educational materials, strengthening the work of waste pickers, workshops on best practices for waste separation and disposal, and selective collection during carnival festivities. The implementation of the LIR suggests alignment with the Sustainable Development Goals (SDGs) related to the CE, however, the dissemination of this policy among taxpayers remains limited, a challenge also observed in other jurisdictions that have adopted green tax instruments (López, 2024; Dantas, 2025). Furthermore, expanding funding strategies and increasing the visibility of the LIR may enhance the engagement of individuals and business organizations, contributing to public governance in the implementation of tax policies that encourage allocating part of the income tax due to financing projects aimed at economic circularity through waste recycling.

Keywords | Circular Economy (CE), Recycling Incentive Law (LIR), Green taxation, Ecological Transformation Plan, Tax Reform, Brazil, Sustainable Development Goals (SDGs).

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TERRITORIAL PERCEPTION AS A PRECONDITION FOR RURAL ENTREPRENEURSHIP: EVIDENCE FROM YOUTH IN A LOW-DENSITY PORTUGUESE REGION (VISEU DÃO LAFÕES)

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Abstract

Purpose | Recent research on rural entrepreneurship highlights the importance of local ecosystems, innovation environments, and place-based strategies to foster territorial cohesion. However, limited attention has been given to how young people cognitively perceive their territory as a space of opportunity and how these perceptions may precede mobility intentions and condition entrepreneurial predispositions. This study explores how territorial perception among students in a low-density Portuguese region influences their willingness to remain, engage, and potentially undertake entrepreneurial or innovative initiatives locally.

Methodology/Approach | The study is based on data collected through six participatory actions conducted in educational contexts, involving 143 participants, primarily students from secondary, vocational, and higher education (aged mostly between 15 and 24) in Viseu Dão Lafões. Data were gathered through structured surveys and participatory reflection exercises assessing territorial perception, life aspirations, mobility intentions, civic participation, and attitudes towards social innovation and entrepreneurship. The study adopts an exploratory and perception-based approach and does not aim to produce statistically representative results, but rather to identify patterns relevant to rural entrepreneurship and territorial cohesion debates.

Expected Results | Findings reveal that 73% of respondents would prefer to live in coastal areas or abroad, and 66% do not perceive their territory as attractive or aligned with their needs as young people. Despite high recognition of the importance of territorial sustainability (83%) and strong interest in contributing to community improvement, respondents show low perception of civic involvement and weak association between the territory and opportunities for professional and personal fulfilment. The results suggest that the main barrier to rural entrepreneurship and territorial cohesion lies in the cognitive disconnection between youth and their territory, preceding economic or structural considerations. From a policy perspective, the findings highlight the need to move beyond purely structural interventions and address how young people perceive rural territories. Investments in infrastructure and jobs are unlikely to be effective if youth do not see their region as a place of opportunity. The study underscores the relevance of policies that address territorial perception through place-based education, youth participation in governance processes, and exposure to local entrepreneurial role models.

Keywords | Territorial perception, rural entrepreneurship, youth mobility, territorial cohesion, low-density regions.

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AVALIAÇÃO DOS CUSTOS DE PRODUÇÃO VITÍCOLA NA REGIÃO DEMARCADA DO DOURO: DESENVOLVIMENTO E VALIDAÇÃO DE UMA FERRAMENTA DE RECOLHA DE DADOS

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Resumo

Objetivo | A vinha e o vinho constituem o principal pilar da economia da Região Demarcada do Douro (RDD), sendo esta a região vitícola nacional onde a vinha assume maior peso na superfície agrícola utilizada. Considerando a elevada heterogeneidade territorial e as exigentes condições de produção, resultantes de fatores como o relevo, o clima e os contextos sociais, demográficos e económicos, os custos elevados de produção de uva podem comprometer a sustentabilidade do setor. Neste contexto, o presente estudo tem como objetivo principal desenvolver e apresentar uma ferramenta de recolha de dados do sistema vitícola, que permita avaliar os custos de produção de uva e outros indicadores técnico-económicos associados aos sistemas produtivos, que permitam suportar o processo de tomada de decisão e a condução de políticas mais adaptadas ao setor e ao território.

Metodologia | O estudo baseou-se no desenvolvimento de uma ferramenta estruturada em torno de um questionário referente a um ciclo vitícola completo, assente nas principais variáveis identificadas na literatura para a caracterização dos sistemas de produção e a estimativa dos respetivos custos. Numa fase posterior, e através de reuniões colaborativas com agentes do setor, bem como da realização de um pré-teste, foi obtida a versão final do questionário, composta por 46 questões, que se encontra estruturado nas seguintes secções: (I) identificação da empresa/exploração; (II) caracterização do empresário; (III) caracterização global da exploração e dos capitais fixos; (IV) caracterização da vinha e dos seus outputs; (V) custos de produção da vinha; e (VI) principais constrangimentos da atividade. Da fase preliminar de implementação do questionário resultaram dezanove observações cujos dados são apresentados.

Resultados | A aplicação do questionário a uma amostra em progresso da RDD permitiu avaliar custos de produção de uva superiores a um euro por quilograma, verificando-se, na maioria dos casos, um rácio benefício-custo inferior à unidade. Apesar do carácter preliminar dos resultados e do estudo ainda se encontrar em curso, estes evidenciam constrangimentos relevantes à viabilidade económica das explorações vitícolas, permitindo com um grande peso dos custos advirem da utilização da mão-de-obra necessária à atividade. A informação gerada revela-se um instrumento útil para apoiar a tomada de decisão dos viticultores, permitindo identificar ineficiências nos sistemas produtivos e contribuindo para a formulação de políticas mais adequadas às especificidades do setor e do território. Não obstante, a recolha de dados apresenta elevada complexidade, destacando-se a necessidade de implementar mecanismos de monitorização sistemática e contínua, de forma a assegurar maior robustez analítica e a concretização dos objetivos subjacentes ao estudo.

Palavras-chave | Sistema vitícola; Análise técnico-económica; Custos de produção; Sustentabilidade.

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TRAVELING WITH TASTE: HOW FAMILY EXPERIENCES SHAPE
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Purpose | Low-density territories usually tend to rely on traditional gastronomy as an important asset to attract visitors. However, the traditional gastronomy often involves place-based ingredients and practices. These local ingredients, recipes and practices may be viewed as unfamiliar cuisine for visitors. While traditional gastronomy is viewed as a defining attribute of a culture, its less globalised aspects can give rise to food neophobia, particularly in young generations. Additionally, contemporary food trends, such as increasing dietary restrictions may constrain visitors' willingness to engage with unfamiliar local cuisines. This may pose a challenge to the development of tourism products based on traditional gastronomy and, as a result, limit the capacity to attract visitors to low-density territories. Kolb's (2015) experiential learning theory explains how family travel fosters learning through experiencing, reflecting, understanding, and applying, such as trying and later embracing new cuisines. Research shows tourism enhances learning through immersive, real-world, multi-sensory experiences, making family gastronomic travel an effective way to learn about food and culture (Moseley et al., 2019). Thus, this study aims to explore how taste education and family food experiences can serve as intermediary tools between food neophilia and cultural openness and the demand for local gastronomic products.

Methodology/Approach | Grounded in experiential learning theory and the family tourism literature, this study adopts a qualitative research design. Data collection was conducted through three (3) focus groups comprising twenty-six (26) participants aged 25 years or younger who had undertaken at least one family trip within the preceding year, including a minimum of one overnight stay at the destination. Eligibility criteria further required that participants had consumed a traditional culinary dish representative of the destination visited. Data were analysed using qualitative coding procedures, supported by NVivo (version 15), to systematically interpret and derive meaning from the data.

Expected Results | Childhood food memories are strongly shaped by diverse cultural backgrounds and family influences, with grandparents and special occasions, such as Christmas or Sunday meals, playing a particularly significant role in shaping early culinary experiences. In the context of travel, food has not always been a primary factor in destination choice, reflecting its historically secondary role in childhood trips. However, this dynamic is evolving, as modern family travel is increasingly influenced by social media, which elevates the importance of gastronomic experiences. While individuals generally demonstrate openness to trying unfamiliar foods, initial willingness is often mediated by visual appearance, highlighting the role of aesthetics in first-time tasting decisions.

Keywords | Taste education; family tourism; gastronomic tourism; low-density territories; sustainable regional development.

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TRENDS AND POSSIBILITIES TO IMPLEMENT ELECTRONIC FREIGHT EXCHANGES BY INTERNATIONAL ROAD TRANSPORT ENTERPRISES

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Purpose | The purpose of this study is to systematically analyze current trends in the development of electronic freight exchanges (EFX) and to identify implementation opportunities for international road transport enterprises. Specifically, the research examines mechanisms through which EFX platforms contribute to operational efficiency improvements, investigates adoption barriers encountered by transport operators, and provides evidence-based recommendations for successful platform implementation. The study addresses the critical challenge of empty runs and suboptimal resource utilization in international road freight transport, which represents a significant source of economic inefficiency and environmental impact in global supply chains.

Methodology/Approach | This research employs a systematic literature review methodology encompassing scientific publications selected from SciSpace and Google Scholar databases. The review integrates diverse research approaches, including mathematical modeling and simulation studies, empirical case studies from European, American, and Asian markets, comparative platform analyses, and conceptual frameworks. The temporal scope spans from early EFX implementations in the 1990s to contemporary studies analyzing advanced algorithms and telematics integration. The analysis focuses on three primary dimensions: (1) digitalization trends and network visibility mechanisms, (2) operational efficiency improvements through backhaul identification and dynamic load matching, and (3) technical, organizational, and market barriers to platform adoption. Publications were evaluated based on methodological rigor, thematic relevance, and contribution to understanding EFX implementation in international road transport contexts.

Expected Results | Electronic Freight Exchange platforms offer substantial potential for improving operational efficiency in international road transport through multiple mechanisms. First, platforms enable significant reductions in empty runs by facilitating real-time identification of backhaul opportunities through telematics-based algorithms and network visibility. Second, dynamic matching of supply and demand leads to improved load capacity utilization, optimized fleet deployment, and reduced transaction costs. Third, integration with telematics and transport management systems enables automated processes and data-driven decision-making. However, the research also identifies significant implementation barriers including high integration costs, market fragmentation, lack of interoperability standards, and trust-related concerns regarding data sharing. Quantitative evidence of efficiency improvements remains fragmented across different geographical contexts, with modeling studies demonstrating theoretical advantages while empirical studies document variable real-world outcomes. The analysis reveals that successful implementation requires holistic approaches addressing technical integration, organizational readiness, and market conditions. Emerging trends include the evolution toward multimodal integration and the rise of digital freight forwarders combining traditional brokerage functions with advanced technologies. The study concludes that while EFX platforms represent a promising innovation for addressing inefficiencies in international road transport, realizing their full potential requires coordinated efforts by enterprises, platform operators, and policymakers to develop common standards, build trust, and reduce adoption barriers.

Keywords | Electronic freight exchanges; road transport; digitalization; freight platforms; digital freight forwarders.

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ASSESSMENT OF THE ECOLOGICAL AND DIGITAL TRANSITION IN THE PRODUCTION OF HIGH-VALUE CHEESES IN LESS-FAVORED RURAL AREAS**Najmeh Mohammadi**Instituto Nacional de Investigação Agrária e Veterinária (Portugal)
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Purpose | Traditional dairy farming and artisanal cheese production play an important role in the identity, economy, and territorial resilience of many rural regions in Southern Europe. At the same time, these systems are facing growing pressure from climate change, rising production costs, labour shortages, stricter environmental requirements, and the broader need to adapt to digital innovation in the agri-food sector. The purpose of this study is to design an analytical framework to assess the effects of ecological and digital transitions in traditional dairy value chains across Portugal, Spain, and France, examining how these transformations affect sustainability outcomes and livelihoods in farms and small-scale cheese production units, located in less favored areas of Protected Designation of Origin (PDO) cheese regions.

Methodology/Approach | This study is based on a literature review and an analysis of indicators to identify a set that can be used to evaluate the sustainability of extensive and semi-extensive dairy systems, as well as PDO cheese production. The indicator framework is organised around four interconnected dimensions: economic performance; environmental sustainability; animal welfare; and workers' lifestyles and labour conditions. Particular attention is given to ecological practices, such as whey valorisation, manure management, wastewater treatment, methane mitigation, and improvements in the efficiency of resource use. The framework also considers the contribution of digital and technological innovations, such as tools for monitoring milk quality, applications for defect detection, traceability systems, and other decision-support technologies that could enhance management and production processes. Field visits, semi-structured interviews, questionnaires, and the analysis of farm-level technical records are ongoing to evaluate the robustness, feasibility, and reliability of using this method to assess the impact of environmental and digital innovations.

Expected Results | A framework to assess these innovations in a sustainable production model, through the reuse of waste and by-products, and through product quality control, reducing waste and economic losses. This tool will contribute to a better understanding of how to reshape traditional small and medium-sized dairy and cheese-making in such a way as to be viable while responding to sustainability, increasing consumer demands, and local heritage protection in low-density areas.

Keywords | Circular economy, dairy farms, digital transition, PDO cheeses, rural development.

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MAPPING PERCEIVED LIVEABILITY: GEOREFERENCED URBAN SCENES
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Abstract

Purpose | Urban environments are shaped by a complex interplay of physical, social, and experiential dimensions, making liveability one of the most debated yet difficult concepts to measure in urban research. While objective indicators have long dominated assessments of urban quality, they often fail to capture how residents perceive the spaces they inhabit. Understanding citizens' subjective evaluations of urban liveability has therefore become a critical dimension for urban landscape characterization. However, translating these intangible dimensions into spatially explicit, city-scale knowledge remains a methodological challenge. This paper presents a methodology to map perceived liveability at city scale, grounded in citizens' comparative visual evaluations of urban scenes, with the aim of contributing to more responsive and informed urban planning and public space intervention.

Methodology/Approach | Using Odivelas as a case study, the research implements a large-scale pairwise comparison survey in which respondents evaluate georeferenced urban scenes google Streetview images sampled across the city, responding to the question 'Where would you rather live?' Comparative judgments are converted into relative perception scores through probabilistic ranking models, and the resulting scores are spatialized within a GIS environment using interpolation techniques to generate a continuous city-wide surface of perceived liveability. To interpret what drives these perceptions, AI-based semantic image segmentation is applied using a deep learning model, specifically a convolutional neural network trained on urban scene datasets, to decompose each urban scene into its constituent visual landscape elements, including greenery, sky, buildings, road space, and pedestrian infrastructure. The association between segmented visual features and perception scores is then analysed through statistical methods, including correlation analysis and regression modelling, to identify which physical attributes most strongly influence perceived liveability. The methodology further incorporates street-level imagery from different time periods, enabling a comparative temporal analysis of how changes in the physical landscape may relate to shifts in perceived liveability over time.

Expected Results | The expected output is a liveability perception map supported by a landscape element and their attributes, enabling the identification of which physical features are most strongly associated with higher or lower liveability scores, as well as the spatial delineation of contrasting areas within the city. Overall, the results seek to contribute actionable evidence to support urban planning decisions and public space management.

Keywords | Urban Perceptions, Street View, Segmentation, GIS, AI.

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INTEGRAÇÃO DA SEGURANÇA ALIMENTAR EM MODELOS DE SUSTENTABILIDADE: UMA REVISÃO SISTEMÁTICA DOS QUADROS TRIPLE BOTTON LINE E DAS ABORDAGENS DE OTIMIZAÇÃO MULTIOBJETIVO

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Resumo

Objetivo | Os sistemas alimentares globais enfrentam pressões crescentes resultantes das alterações climáticas, do crescimento demográfico e da escassez de recursos, tornando a segurança alimentar um tema cada vez mais relevante na investigação científica e nas políticas públicas. O enquadramento do Triple Bottom Line (TBL), que integra as dimensões económica, ambiental e social da sustentabilidade, tem sido amplamente utilizado para avaliar cadeias de abastecimento e processos de desenvolvimento. No entanto, a literatura evidencia uma lacuna persistente: a segurança alimentar é raramente incorporada como variável de decisão explícita nos modelos analíticos baseados no TBL. Os modelos de otimização multiobjetivo (MOO) aplicados a sistemas alimentares sustentáveis tendem a privilegiar a minimização dos custos e a redução do impacto ambiental, descurando dimensões como a disponibilidade, a acessibilidade e a adequação nutricional dos alimentos enquanto objetivos formalmente otimizáveis. A presente revisão sistemática tem como objetivo analisar criticamente a forma como a segurança alimentar tem sido concebida e aplicada em modelos TBL e MOO, identificar as variáveis de decisão que possibilitam a sua integração formal e as lacunas metodológicas que limitam o desenvolvimento de modelos multiobjetivo relevantes para as políticas de sustentabilidade alimentar.

Metodologia | A metodologia seguiu o protocolo PRISMA, tendo sido efetuada uma pesquisa nas bases de dados Scopus e Web of Science, com recurso a cadeias booleanas que combinaram termos como "food security", "triple bottom line", "multi-objective optimisation" e "food supply chain". Foram incluídos estudos empíricos, conceptuais e de revisão, publicados em inglês entre 2010 e 2025, que foram analisados segundo quatro dimensões: o tratamento da segurança alimentar nas formulações TBL; as variáveis de decisão que articulam a segurança alimentar com a sustentabilidade; as técnicas de MOO utilizadas; e as estratégias de integração entre métodos multicritério e abordagens de otimização.

Resultados | Os resultados esperados indicam que a interseção TBL–MOO–segurança alimentar permanece fragmentada e insuficientemente teorizada. Nas avaliações quantitativas, o pilar social do TBL é o que apresenta um desenvolvimento mais limitado, sendo crucial a existência de variáveis que articulem a adequação nutricional, a acessibilidade alimentar e a resiliência das cadeias de abastecimento com os objetivos económicos e ambientais. Este estudo contribui para o mapeamento conceitual das dimensões da segurança alimentar que podem ser integradas em estruturas MOO, bem como para a identificação das técnicas de otimização mais adequadas. O estudo fornece informação aos decisores políticos e promove modelos que conciliam a segurança alimentar, a sustentabilidade ambiental e a viabilidade económica.

Palavras-chave | Segurança alimentar; sustentabilidade; *triple bottom line*; otimização multiobjetivo; tomada de decisão.

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ECONOMIC RESILIENCE AND ADAPTATION OF THE GLOBAL AIRLINE SECTOR TO THE MIDDLE EAST CRISIS: A MULTI-REGIONAL CGE MODEL APPROACH

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Abstract

Purpose | This study aims to evaluate the economic resilience and adaptive capacity of the global airline industry in response to the multifaceted disruptions triggered by the ongoing Middle East Crisis in 2026. By applying a Computable General Equilibrium (CGE) framework, the research quantifies the macroeconomic and sectoral impacts of geopolitical shocks, including: oil price volatility, airspace restrictions, supply-chain interruptions, and shifts in passenger and cargo demand, while identifying policy-relevant adaptation pathways that enhance the long-term viability of air transport services.

Methodology/Approach | A dynamic, multi-regional CGE model is developed using the GTAP 11 database (2023 benchmark), with explicit disaggregation of the air transport sector and its upstream (fuel refining, aircraft manufacturing) and downstream (tourism, logistics) linkages. The model incorporates recursive-dynamic behavior, Armington trade specifications, and labor-market frictions. Three counterfactual scenarios are simulated: (i) baseline (no-crisis continuation), (ii) moderate crisis (sustained 30–50 % fuel-price increase and selective route closures), and (iii) severe crisis (prolonged instability with additional security-cost shocks). Model calibration draws on econometric estimates of substitution elasticities and historical data from prior geopolitical events (2019–2025). Sensitivity analysis and Monte Carlo simulations assess parameter uncertainty.

Expected Results | Simulations are expected to demonstrate that the airline sector exhibits partial short-term resilience through route optimization, load-factor adjustments, and cost pass-through, yet faces output contractions of 8–18 % and employment losses of 4–12 % in the first two years under moderate-to-severe scenarios. Adaptive strategies: fleet modernization toward sustainable aviation fuels, network reconfiguration, and targeted government subsidies are projected to accelerate recovery, limiting cumulative global GDP losses to 0.2–0.6 % over five years. Spillover effects on tourism-dependent economies and cargo logistics will be quantified, yielding concrete policy recommendations for international aviation security coordination and green-fuel incentives to bolster future shock absorption.

Keywords | Economic resilience, Middle East Crisis, computable general equilibrium (CGE) model, airline sector, geopolitical shocks.

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REGENERATIVE TOURISM PATHWAYS – REVIEWING CONCEPTS, APPROACHES, APPLICATION CONTEXTS, AND OPPORTUNITIES FOR RURAL TERRITORIES

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Abstract

Purpose | Regenerative tourism is defined as tourism that goes beyond ‘reducing harm’ to actively restore and improve destinations’ socio-ecological systems. It pursues net-positive, resilience-building outcomes through a whole-systems approach, collaboration, and ongoing learning/adaptation, using locally grounded and inclusive experience design that strengthens ecosystems and community well-being while fostering mindset shifts within participatory, adaptive governance (Bellato et al., 2022; Cave & Dredge, 2020). Especially in rural - often peripheral and structurally fragile - areas, caught in a vicious cycle of agricultural decline, few economic alternatives, depopulation and population aging, and socio-cultural and economic stagnation, missing investment in services and infrastructure, regenerative rural tourism - anchored in rich natural and cultural heritage, co-creative, eventually transformatory experience approaches - appears promising (Carvalho et al., 2016; Kastenholz et al., 2025).

Methodology/Approach | The present study adopts a scoping literature review approach to examine research published in Scopus - and Web of Science-indexed articles on regenerative forms of tourism. Not requiring the exact, quite recent term “regenerative tourism”, the review encompasses studies that adopt (even if not fully) the regenerative tourism paradigm, yielding a sample of 1324 documents through the Boolean [regenerat* AND tourism]. These were double-blind reviewed by all authors (the main author validated all entries) to guarantee thematic fit. Bibliometric analysis via Biblioshiny, Vosviewer and the Antecedents-Decisions-Outcomes framework shed light on the evolution of the domain, main scientific outlets, and most influential authors, while revealing main themes, theories, and methods used, as well as study contexts. Thematic clusters were identified for urban regeneration (often associated with spatial, architectural, socio-cultural concerns), cultural regeneration, sometimes in the context of events, and ecological regeneration, which sought to reconcile human use (for tourism, leisure, other uses) and natural integrity. Given our particular interest in rural areas, ADO comparison permitted identifying antecedents/conditioning factors of regenerative tourism decisions appearing more in rural than non-rural context (e.g., cultural heritage, stakeholder collaboration, entrepreneurship, community engagement), while relatively more rural-context-typical decisions referred to agritourism, eco/nature-based and creative tourism, and more rural-context-shaped outcomes being sustainability, resilience, and socio-economic regeneration.

Expected Results | Insights help assess the relevance of regenerative tourism for local and regional development, identify central and emerging topics, and highlight the role of geographical, cultural, and

governance context, as well as the most analyzed dimensions of regeneration, despite the ambition of a holistic systems approach.

Keywords | Regenerative tourism, scoping literature review, bibliometric analysis, rural areas, RESTORE.

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VALORIZAÇÃO DA SUSTENTABILIDADE NO ENOTURISMO: UMA REVISÃO SISTEMÁTICA DA LITERATURA PARA A MODELAÇÃO DE ESCOLHA DISCRETA NA REGIÃO DO TÁVORA-VAROSA**Ivo Miguel Guedes Figueiredo**Universidade de Trás-os-Montes e Alto Douro - UTAD (Portugal)
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ioliveir@utad.pt**AResumo**

Objetivo | O presente estudo realiza uma revisão sistemática da literatura (RSL) sobre os atributos que estruturam a experiência enoturística, com enfoque na sustentabilidade enquanto determinante emergente da escolha de destinos vínicos. Apesar do crescente volume de investigação sobre enoturismo e preferências dos consumidores, persiste uma lacuna na compreensão de como os visitantes valorizam atributos de sustentabilidade em regiões vitivinícolas de pequena dimensão (Del Chiappa et al., 2022). A região demarcada do Távora-Varosa, no norte de Portugal, primeira DOC portuguesa para espumantes, com rico património vitivinícola, adegas históricas e património cultural-religioso significativo, tem recebido atenção científica limitada neste domínio. A revisão visa mapear e avaliar criticamente a evidência existente, identificando enquadramentos conceituais e abordagens metodológicas, e estabelecendo as bases teóricas para a aplicação de Experiências de Escolha Discreta (DCE) destinadas a estimar as preferências e a disponibilidade a pagar dos visitantes neste território.

Metodologia | Foi conduzida uma RSL seguindo o protocolo PRISMA. Os artigos revistos por pares foram recolhidos nas bases Scopus e Web of Science, utilizando combinações booleanas de termos-chave: "wine tourism", "sustainability", "discrete choice experiment", "destination choice", "consumer preferences" e "experience attributes". Os critérios de inclusão abrangeram artigos empíricos e conceituais, publicados em inglês entre 2000 e 2025, sobre enoturismo, sustentabilidade no turismo ou modelos de escolha. Os critérios de exclusão removeram fontes sem revisão por pares, estudos não relacionados com turismo vínico e duplicados. Os artigos selecionados foram submetidos a análise temática em quatro dimensões: atributos experienciais do enoturismo, sustentabilidade enquanto determinante de escolha, abordagens de obtenção de preferências e especificidades territoriais das regiões vitivinícolas.

Resultados Esperados | Prevê-se que a revisão revele que a experiência enoturística se estrutura em torno de atributos multidimensionais: hedónicos, estéticos, educativos e de autenticidade, que influenciam conjuntamente a escolha do destino (Kastenholz et al., 2022). A sustentabilidade emergirá como atributo relevante, embora subexplorado, nos modelos de preferência do consumidor, particularmente em regiões vitivinícolas periféricas com forte identidade territorial. A análise deverá identificar uma lacuna metodológica significativa: a aplicação limitada de DCE no enoturismo e a inexistência no Távora-Varosa. A revisão contribui ao integrar a teoria de Lancaster, a economia da experiência e a literatura sobre sustentabilidade num modelo analítico coerente. Em termos práticos, os resultados fundamentarão o desenvolvimento de um DCE para estimar a disponibilidade a pagar por atributos experienciais e de sustentabilidade, apoiando estratégias baseadas em evidência para a otimização da cadeia de valor na região.

Palavras-chave | Enoturismo, sustentabilidade, experiência de escolha discreta, preferências do consumidor, Távora-Varosa.

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DIGITAL INCLUSION AMID GLOBAL DISPARITIES: DRIVERS OF E-COMMERCE, TRADE AND AIR LOGISTICS

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Abstract

Purpose | This study examines digital inclusion growth, encompassing improvements in internet access, digital literacy, affordable connectivity, and digital skills, as a key determinant of e-commerce, international trade, and air transport logistics development. Although e-commerce drives global trade volumes and air cargo demand, persistent digital divides limit equitable participation. Significant disparities exist across countries: internet penetration exceeds 90–94% in developed economies, compared to around 80% in upper-middle-income, 53% in lower-middle-income, and only 23–27% in low-income (underdeveloped) countries. These gaps are widened by affordability barriers, infrastructure deficits, lower digital skills, and urban-rural as well as gender divides. The research investigates how closing these divides through targeted policies and infrastructure investments can accelerate e-commerce adoption, enhance cross-border trade efficiency, and stimulate demand for air transport logistics, thereby fostering more inclusive global economic development.

Methodology/Approach | The study adopts a mixed-methods approach combining quantitative econometric analysis with qualitative policy review. Panel data from major international sources (World Bank, ITU, IATA, UNCTAD) for the period 2010–2025 will be examined using fixed-effects regression models and gravity models of trade. Digital inclusion indicators (internet penetration, mobile broadband subscriptions, digital skills indices, and affordability metrics) will be disaggregated by income groups to quantify heterogeneous effects on e-commerce volumes, cross-border trade flows, and air cargo tonne-kilometers. Instrumental variable techniques will address endogeneity issues. Heterogeneity analysis will focus on differences across development levels, regions, and firm size (with emphasis on SMEs). A systematic literature review and case studies from underdeveloped, developing, and developed economies will complement the quantitative findings.

Expected Results | Higher levels of digital inclusion are expected to show statistically significant positive effects on e-commerce growth, which in turn drives international trade expansion and air cargo demand. Preliminary evidence suggests that e-commerce already accounts for a growing share of air cargo volumes (approximately 18–20% in recent years), with projections indicating further increases tied to digital connectivity improvements. The analysis should reveal particularly high marginal returns to digital inclusion improvements in underdeveloped and developing countries, where baseline penetration remains low. Structural barriers such as high connectivity costs, limited logistics infrastructure, and lower digital skills may moderate these benefits unless accompanied by complementary investments in trade facilitation and air cargo capacity. Results are anticipated to demonstrate that bridging the digital divide can reduce trade costs, enhance SME market access, and generate stronger multiplier effects in countries with adequate institutional quality. Policy simulations will highlight substantial gains in e-commerce-driven air logistics while underscoring the risk of widening global inequalities if disparities between developed, developing, and underdeveloped countries persist.

Keywords | Digital inclusion, global disparities, e-commerce, international trade, air transport logistics.

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TURISMO INDUSTRIAL: UMA FERRAMENTA DE REGENERAÇÃO TERRITORIAL?**Ana Fachada**

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Resumo

Objetivos | O crescimento veloz da indústria do turismo, particularmente a partir da segunda metade do século XX, deu origem ao fenómeno do turismo de massas, marcado pela crescente padronização das experiências turísticas. Este processo, frequentemente associado à ausência de planeamento estratégico, desencadeou diversos impactes negativos de natureza social, cultural e ambiental (Corral-Gonzalez et al., 2023). Neste contexto, o turismo regenerativo surge como uma evolução do paradigma da sustentabilidade, propondo a criação de efeitos líquidos positivos nos destinos. Esta abordagem assenta na regeneração ativa dos territórios, no fortalecimento das relações entre comunidades e ecossistemas (Bellato et al., 2023) e na cocriação de valor entre visitantes, comunidades locais e ambiente. Neste âmbito, os territórios rurais assumem particular relevância pela sua riqueza de recursos naturais e culturais e necessidade de revitalização socioeconómica e valorização de atividades tradicionais, uma vez que sofrem frequentemente de dinâmicas de despovoamento. Paralelamente, o turismo industrial tem sido maioritariamente abordado na literatura enquanto instrumento de conservação do património, centrado na preservação da memória coletiva e na revitalização de espaços industriais. Contudo, em contextos rurais, pode assumir um papel mais abrangente ao valorizar atividades produtivas locais e cadeias de valor endógenas, permanecendo ainda pouco explorado o seu contributo enquanto ferramenta de regeneração territorial (Kastenzholz et al., 2025). Neste enquadramento, a presente investigação tem como objetivo analisar de que forma o turismo industrial tem sido conceptualizado na literatura e em que medida pode assumir-se como um catalisador de processos regenerativos, contribuindo para a regeneração dos territórios e comunidades através das experiências proporcionadas aos visitantes, especialmente em contextos rurais.

Metodologia | Metodologicamente, o estudo baseia-se numa revisão sistemática da literatura, complementada por análise bibliométrica e de conteúdo. Foi definido um protocolo de pesquisa com base em critérios de inclusão e exclusão, recorrendo a bases de dados (Scopus e WOS), utilizando combinações de palavras-chave derivadas de turismo industrial e regeneração. Os estudos selecionados foram analisados com recurso ao Biblioshiny e VOSViewer, permitindo identificar padrões de publicação, evolução temporal e principais temas de investigação.

Resultados | Os resultados evidenciam uma fragmentação entre os campos do turismo regenerativo e do turismo industrial. Por um lado, os estudos sobre turismo regenerativo concentram-se sobretudo em contextos urbanos e comunitários, sendo limitada a aplicação a recursos industriais. Por outro, a literatura sobre turismo industrial privilegia abordagens centradas na conservação patrimonial, não explorando o seu potencial enquanto instrumento de regeneração territorial e experiencial. Este estudo contribui para o avanço do conhecimento ao articular, de forma integrada, os conceitos de turismo industrial e regenerativo, propondo novas perspetivas para o desenvolvimento de território, incluindo a perspetiva de áreas rurais. Como limitação, destaca-se a ausência de validação empírica, sugerindo-se a realização de estudos de caso.

Palavras-chave | Turismo regenerativo, Turismo industrial, Áreas rurais, Revisão sistemática da literatura, Regeneração territorial, Sustentabilidade.

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ESTRATÉGIAS DE ESPECIALIZAÇÃO INTELIGENTE EM PORTUGAL: ANÁLISE E ENQUADRAMENTO CONCEPTUAL**Sónia Pereira**

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Resumo

Objetivo | As estratégias de especialização inteligente (S3) e a sua boa governação têm assumido centralidade na operacionalização da política de coesão na União Europeia. As S3 evoluíram de condicionalidade ex ante para condição habilitadora, associada a objetivos específicos dos fundos europeus. Em Portugal, as estratégias nacionais (ENEI) e regionais (EREI) constituem instrumentos estruturantes para a orientação e financiamento das intervenções públicas nos domínios da investigação e inovação. Este artigo analisa o modo como a especialização inteligente é concetualizada e enquadrada nas estratégias portuguesas.

Metodologia | O estudo adotou uma abordagem qualitativa, baseada em análise documental e análise de conteúdo de documentos oficiais das S3 relativos aos períodos de programação 2014–2020 e 2021–2027. A partir das 16 estratégias (2 ENEI e 14 EREI), foram selecionados e analisados 29 excertos de texto contendo definições explícitas e formulações associadas ao enquadramento concetual. Os excertos foram codificados (n=49) segundo um quadro analítico composto por cinco dimensões contextuais — definição e evolução concetual, enquadramento estratégico e político, governação e coordenação, lógica territorial, e priorização e seletividade.

Resultados | A análise empírica mostra que o conceito de especialização inteligente é multifacetado, por surgir estreitamente articulado com múltiplas dimensões contextuais. O conceito extravasa a definição em sentido estrito e raramente é apresentado de forma isolada. Pelo contrário, assenta numa base concetual dispersa e surge fortemente interligado com dimensões de cariz territorial, enquadramento estratégico e político, e de seletividade. A dimensão da governação é a que apresenta menor expressão. O estudo contribui para os debates atuais sobre a especialização inteligente ao evidenciar que, em Portugal, o conceito é predominantemente definido como uma abordagem estratégica de base local (place-based), fortemente moldada pelo contexto estratégico e político europeu, ainda que com sinais de institucionalização progressiva. Apesar da definição ser convergente e se encontrar consolidada ao nível discursivo e estratégico, os resultados sublinham a necessidade de reforçar a operacionalização, em particular no que respeita a práticas de gestão e coordenação associadas à governação multinível.

Palavras-chave | Estratégias de especialização inteligente, abordagem de base territorial, institucionalização, governação multinível.

**A ESPECIALIZAÇÃO INTELIGENTE NO DISCURSO POLÍTICO PORTUGUÊS:
ANÁLISE DOS DEBATES PARLAMENTARES (2011-2025)****Sónia Pereira**

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Resumo

Objetivo | A especialização inteligente (S3) tem-se afirmado como um pilar estruturante das políticas públicas de investigação e inovação. Em Portugal, apesar da crescente incorporação do conceito no quadro estratégico-político e no sistema normativo, o modo como a sua apropriação discursiva evoluiu no sistema político permanece pouco explorado. Este artigo examina o surgimento, a evolução e o enquadramento da S3 no discurso político nacional.

Metodologia | O estudo assenta numa abordagem qualitativa, combinando análise documental, análise de conteúdo e análise temática para examinar o uso político do conceito S3, complementadas por procedimentos de estatística descritiva para quantificação de ocorrências e caracterização da evolução temporal. A análise incide em excertos dos Diários dos Debates Parlamentares (n=69), com a expressão exata “especialização inteligente” (172 ocorrências textuais), entre 2011 e 2025. Seguiu-se a construção e aplicação de uma matriz analítica com cinco dimensões temáticas, baseada nos contextos de aplicação do termo S3 a partir dos excertos — programação e instrumentação política, financiamento e alocação de recursos, dinâmicas territoriais e ecossistemas de inovação, governação e articulação, e capacitação e competências.

Resultados | A análise empírica mostra que o discurso político precede a formalização normativa da S3, iniciando-se em 2011 e atingindo um pico inicial de menções em 2014. Entre 2018 e 2019 observa-se uma forte intensificação discursiva, não acompanhada por um aumento proporcional de Diários, sugerindo concentração temática ou intensificação argumentativa. A análise temática revela que as referências se distribuem pelas cinco dimensões estruturais, com destaque para programação e instrumentação política (24%), capacitação e competências (23%) e financiamento e alocação de recursos (21%). A dimensão dinâmicas territoriais e ecossistemas de inovação regista o menor alinhamento (15%). O estudo contribui para os debates atuais sobre a especialização inteligente com evidência empírica sobre a linha temporal e trajetória discursiva da especialização inteligente no sistema político português, uma matriz analítica com potencial de replicação para estudos discursivos no contexto das políticas públicas, e reflexões sobre a institucionalização da governação de lógica multinível, relevantes para decisores políticos e para a literatura sobre as políticas de inovação.

Palavras-chave | Especialização Inteligente, sistema político, debates parlamentares, análise discursiva.

PROJETAR O ENVELHECIMENTO: POLÍTICAS PÚBLICAS, CONTEXTO TERRITORIAL E DIGNIDADE INDIVIDUAL

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Resumo

Objetivo | O presente artigo tem como objetivo analisar a literatura sobre a preparação para o envelhecimento, articulando três dimensões analíticas fundamentais: políticas públicas, subjetividades individuais e contextos territoriais. Procura-se compreender de que modo estas dimensões interagem na configuração de trajetórias de envelhecimento mais equitativas, autónomas e sustentáveis.

Metodologia | Recorreu-se a uma revisão integrativa da literatura, combinando procedimentos de revisão sistemática com análise narrativa. A pesquisa foi realizada nas bases de dados Web of Science e Scopus, sendo posteriormente ampliada através da incorporação de literatura cinzenta e outras fontes não indexadas, garantindo maior abrangência analítica e atualização temática. Este procedimento permitiu integrar diferentes perspetivas teóricas e evidências empíricas, reforçando a robustez interpretativa do estudo.

Resultados | Os resultados evidenciam que a preparação para o envelhecimento constitui um processo multidimensional, cumulativo e dinâmico, que integra saúde física e psicológica, segurança económica, redes sociais, condições habitacionais e participação social. A literatura revela que abordagens fragmentadas e predominantemente assistencialistas tendem a reproduzir desigualdades sociais e territoriais, enquanto políticas integradas, intersetoriais e territorialmente sensíveis apresentam maior potencial de resposta. Destaca-se ainda a centralidade das subjetividades individuais e da participação ativa das pessoas mais velhas na construção de políticas públicas mais inclusivas. O estudo contribui para o debate académico ao reforçar a preparação para o envelhecimento como um processo coletivo, político e territorial, sublinhando a necessidade de abordagens interdisciplinares, preventivas e participativas orientadas pela dignidade.

Palavras-chave | Envelhecimento, políticas públicas, dignidade, territórios.

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THE CITY WE WANT VS. THE CITY WE FEEL: THE SMART CITY GAP

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Abstract

Purpose | This study introduces the concept of the “smart city gap,” defined as the difference between the city citizens desire and the city they experience. Although smart city research has primarily focused on technological development and performance indicators, little attention has been given to the discrepancy between normative expectations and real-life urban experiences. This paper aims to conceptualize and empirically assess this gap across key smart city dimensions, contributing to a more citizen-centered understanding of urban transformation. Additionally, it frames this gap as a form of place branding misalignment, where the implicit promise of a “smart city” is not fully reflected in citizens’ lived experiences.

Methodology/Approach | The study is based on a structured survey of residents in three small- to medium-sized Portuguese municipalities: Castelo Branco, Fundão, and Idanha-a-Nova. The questionnaire captures the importance that citizens attribute to core smart city dimensions (desired city) as well as their perceptions of existing initiatives and conditions (perceived city). Gap scores are computed as the difference between the desired and perceived values across six dimensions: governance, economy, people, environment, mobility, and quality of life. Statistical analyses, including mean comparison tests and exploratory regression models, were used to identify the magnitude, distribution, and determinants of these gaps.

Expected Results | The findings are expected to reveal significant discrepancies between expectations and perceptions, particularly regarding governance and citizen participation. This suggests that the main challenges of smart city development extend beyond technological implementation to include institutional and communicational dimensions. More visible areas, such as environmental initiatives, are expected to show smaller discrepancies. The results will likely indicate that larger gaps are associated with lower levels of trust and civic engagement. This reinforces the idea that smart city strategies operate as both development frameworks and place branding processes.

Keywords | Smart Cities, Place Branding, Perception Gap, Urban Governance, Citizen Perception.

NORMATIVE DISCONNECTION AND ABSENCE OF ECOLOGICAL CRITERIA AS STRUCTURAL LIMITATIONS OF CULTURAL FUNDING UNDER BRAZIL'S ALDIR BLANC POLICY

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Abstract

Purpose | The 2030 Agenda demands cross-sectoral integration of environmental sustainability into public policy. However, cultural funding mechanisms remain largely disconnected from environmental agendas. In Brazil, the Aldir Blanc National Cultural Policy (PNAB), established by Law No. 14.399/2022, consolidated a decentralized and continuous funding model grounded in federative cooperation and social participation. Nevertheless, its funding instruments do not incorporate environmental sustainability as a mandatory criterion. This study aims to analyze the extent to which PNAB integrates the environmental dimension into its funding mechanisms.

Methodology/Approach | This research adopts a qualitative and documentary approach, based on the analysis of PNAB legislation, public calls for proposals, implementation guidelines, and monitoring reports. The analysis is structured through thematic content analysis, organized around three analytical axes: governance structure, territorial participation, and environmental integration.

Expected Results | The findings indicate that environmental criteria are absent as mandatory requirements in funding calls, appearing only in fragmented and non-systematic forms. Monitoring frameworks lack ecological indicators, limiting the assessment of the environmental impacts of funded cultural actions. This gap may contribute to the reproduction of unsustainable production and consumption patterns across territories. The study suggests that incorporating mandatory environmental criteria, sustainability plans, and ecological performance indicators into cultural funding calls can strengthen alignment with the 2030 Agenda, particularly SDGs 11, 12, and 13, positioning culture as a strategic driver of socio-environmental transformation.

Keywords | Cultural policy, environmental governance, public funding instruments, territorial development, climate crisis.

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ECOSSISTEMAS DE INOVAÇÃO SUSTENTÁVEIS EM PARQUES
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Objetivos | A investigação realizada analisa a relação entre ecossistemas de inovação, economia do conhecimento e sustentabilidade, situando-se no contexto das transformações estruturais do século XXI, em que o conhecimento e a inovação passam a ocupar papel central no desenvolvimento econômico e social. Parte-se do reconhecimento de que modelos tradicionais de crescimento mostram-se insuficientes diante de desafios contemporâneos, como crises ambientais e desigualdades, demandando a construção de arranjos colaborativos capazes de integrar múltiplos atores e objetivos socioeconômicos e ambientais. Assim, objetivou-se compreender como os ecossistemas de inovação podem atuar como pilares de um paradigma de desenvolvimento sustentável, examinando os mecanismos que possibilitam a articulação entre conhecimento, inovação e sustentabilidade.

Metodologia | Para isso, o estudo adota uma abordagem qualitativa, de caráter exploratório-descritivo, combinando revisão bibliográfica com análise de múltiplos estudos de caso. Foram examinados dois ecossistemas brasileiros relevantes — Porto Digital (Recife) e Sapiens Parque (Florianópolis) — a partir de dados secundários, como relatórios institucionais, documentos de políticas públicas e literatura acadêmica, tratados por meio de análise de conteúdo temática.

Resultados Esperados | Os resultados indicam que a convergência entre economia do conhecimento, governança multissetorial e orientação sustentável não ocorre de forma automática. Ambos os casos evidenciam que o sucesso desses ecossistemas se vincula a fatores como cultura institucional, políticas públicas consistentes, redes de aprendizagem e modelos híbridos de cooperação entre universidade, empresas, governo e sociedade. O Porto Digital destaca-se pela revitalização urbana, inclusão social e dinamização econômica, enquanto o Sapiens Parque se diferencia pela integração entre inovação tecnológica e preservação ambiental. Contudo, persistem desafios relevantes, como fragmentação institucional, baixa absorção do conhecimento local, dificuldades de coordenação e ausência de métricas robustas de impacto socioambiental. Como contribuição, o estudo avança na literatura ao propor que o conhecimento deve ser compreendido como recurso coletivo orientado à geração de valor sustentável, ampliando a abordagem tradicional do tríptico hélice para modelos significativamente inclusivos, como a quádrupla e a quádrupla hélice. Ademais, oferece implicações práticas para gestores e formuladores de políticas públicas no desenho de ecossistemas integrados e orientados à sustentabilidade. Conclui-se que os ecossistemas de inovação possuem elevado potencial para reconciliar prosperidade econômica, equidade social e regeneração ambiental, desde que estruturados por mecanismos robustos de governança e intencionalmente orientados para fins socioambientais. Todavia, sua efetividade depende da superação de limitações institucionais e do desenvolvimento de instrumentos que permitam mensurar e ampliar seus impactos sustentáveis.

Palavras-chave | Ecossistemas de inovação; Economia do conhecimento; Sustentabilidade.

OBSOLESCÊNCIA PROGRAMADA E SEUS REFLEXOS NA GERAÇÃO DE RESÍDUOS

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Objetivo | A investigação realizada explora a obsolescência programada e seus reflexos na geração de resíduos sólidos, com ênfase no crescimento do lixo eletrônico em decorrência das dinâmicas contemporâneas de produção e consumo. Parte-se do pressuposto de que a constante introdução de novos produtos no mercado, aliada a estratégias empresariais que reduzem intencionalmente a vida útil dos bens, tem intensificado o descarte precoce de equipamentos ainda funcionais, agravando os impactos ambientais e os riscos à saúde humana. Nesse contexto, o objetivo do estudo foi conhecer os reflexos da obsolescência programada na geração de resíduos sólidos, especificamente no setor tecnológico.

Metodologia | Para tanto, adotou-se uma abordagem qualitativa, de caráter exploratório, baseada em revisão narrativa da literatura e análise documental de fontes acadêmicas, normativas e institucionais. Os dados foram organizados por meio de análise temática de conteúdo, contemplando categorias como obsolescência programada, resíduos sólidos e lixo eletrônico.

Resultados Esperados | Os resultados evidenciam que a obsolescência programada, aliada ao consumismo e às estratégias de marketing, contribui significativamente para o aumento da produção de resíduos eletrônicos, cuja taxa de crescimento supera amplamente sua reciclagem. Dados apresentados indicam que apenas uma pequena parcela desses resíduos recebe tratamento adequado, enquanto significativo volume é descartado de forma irregular, liberando substâncias tóxicas como chumbo e mercúrio no meio ambiente. Além disso, verificou-se que países desenvolvidos frequentemente transferem resíduos eletrônicos para nações emergentes, ampliando desigualdades socioambientais e expondo populações vulneráveis a riscos sanitários. No âmbito institucional, observa-se que, embora existam avanços normativos, como a Política Nacional de Resíduos Sólidos no Brasil e iniciativas internacionais voltadas ao direito ao reparo, persistem lacunas regulatórias, no que tange à responsabilização direta das empresas pela prática da obsolescência programada e à efetividade da fiscalização. Como contribuição, o estudo amplia o debate sobre consumo sustentável ao evidenciar a necessidade de integração entre políticas públicas, responsabilidade empresarial e conscientização do consumidor. Destaca-se, ainda, a relevância da economia circular e da logística reversa como estratégias para mitigar os impactos ambientais. Conclui-se que a obsolescência programada constitui um fator crítico na intensificação da geração de resíduos sólidos, demandando rigor legislativo, fortalecimento dos mecanismos de controle e adoção de práticas produtivas que resguardem substancialmente a sustentabilidade. A superação desse problema exige ações articuladas entre Estado, mercado e sociedade, para a redução do descarte precoce e a promoção de modelos de produção e consumo alinhados a práticas sustentáveis.

Palavras-chave | Obsolescência programada; Resíduos eletrônicos; Sustentabilidade ambiental.

A INSTITUCIONALIZAÇÃO DA ESPECIALIZAÇÃO INTELIGENTE EM PORTUGAL: ANÁLISE COMPARADA DA PRODUÇÃO NORMATIVA E DO DISCURSO PARLAMENTAR (2011-2025)

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Resumo

Objetivo | A especialização inteligente (S3) consolidou-se como um princípio estruturante das políticas europeias de inovação e desenvolvimento regional, assumindo relevância no acesso e execução dos fundos estruturais. Em Portugal, o conceito foi progressivamente incorporado nos sistemas jurídico e político. Todavia, a forma como a especialização inteligente se distribui, evolui e diferencia entre os espaços normativo e discursivo permanece pouco explorada. Este artigo analisa, de forma longitudinal e comparada, a presença do termo “especialização inteligente” no sistema jurídico e no discurso parlamentar nacional, entre 2011 e 2025.

Metodologia | O estudo adota uma abordagem predominantemente quantitativa de análise documental, complementada por interpretação contextual dos padrões observados. A análise incide em dois tipos de documentos oficiais, contendo a expressão exata “especialização inteligente”: atos jurídicos e diários dos debates parlamentares. Foram contabilizados o número de documentos (225 atos jurídicos, 69 diários) e o número total de ocorrências (631 em atos jurídicos, 172 em diários), e definidos indicadores derivados, como a densidade de ocorrências e a distribuição temporal por períodos analíticos (emergência, consolidação e estabilização). Procedeu-se igualmente à análise da correlação temporal entre as perspetivas normativa e discursiva.

Resultados | A análise empírica evidencia predominância da dimensão normativa. A trajetória normativa revela um crescimento consistente e sustentado a partir de 2014, com um pico acentuado em 2020, indiciando uma integração robusta e contínua da especialização inteligente no ordenamento jurídico português, como instrumento técnico-programático. Em contraste, o discurso parlamentar apresenta um padrão mais cíclico e irregular, com picos de atenção e períodos de descontinuidade. A fraca sincronização entre as duas séries sugere que a produção normativa e o debate político seguem lógicas temporais e trajetórias distintas, com padrões de institucionalização díspares.

O estudo contribui para a literatura sobre políticas públicas e governação e para o estudo das políticas públicas de inovação ao fornecer uma análise sistemática da presença da especialização inteligente em duas arenas institucionais centrais e reflexões sobre o processo de institucionalização da especialização inteligente, relevantes para decisores políticos.

Palavras-chave | Especialização Inteligente, produção normativa, discurso parlamentar, institucionalização.

THERMALISM AND HEALTHY LONGEVITY: ACCESSIBILITY AS A DETERMINANT OF INCLUSIVE TERRITORIAL DEVELOPMENT**Joana A. Quintela**REMIT – Research on Economics, Management and Information Technologies, Portucalense University (Portugal)
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Purpose | This paper aims to conceptualise the relationship between thermalism and longevity, positioning thermal territories as strategic environments for promoting healthy ageing within the broader framework of sustainable and inclusive territorial development. In the context of rapidly ageing societies and increasing public health pressures (Khan et al., 2024), thermalism is examined not only as a tourism activity but as a preventive and health-promoting practice that contributes to maintaining functional ability, well-being and social participation across the life course. Building on ethical considerations of equity in ageing (Gebremariam & Sadana, 2019), the study further explores how accessibility conditions shape the extent to which thermal resources can effectively support longevity, particularly among older adults and other vulnerable populations.

Methodology/Approach | The research adopts a qualitative and conceptual approach, grounded in an interdisciplinary framework that integrates perspectives from public health, human geography and tourism studies. It combines: (i) a critical literature review on thermalism, longevity, active ageing and accessibility; (ii) the development of a conceptual model linking thermal practices to the determinants of healthy ageing; and (iii) the integration of accessibility as a mediating factor within this relationship. Particular attention is given to the “tourism accessibility chain” (López-del-Pino et al., 2026), emphasising how barriers across mobility, infrastructure and service provision affect the capacity of individuals to benefit from thermal experiences. The framework also incorporates insights on perceived accessibility and destination image (Leiras et al., 2025), as well as empirical evidence on exclusionary dynamics in nature-based tourism contexts (Groulx et al., 2024), alongside policy guidance on accessible tourism (UN Tourism et al., 2023).

Expected Results | The paper is expected to advance the understanding of thermalism as a health-supporting system that actively contributes to longevity, rather than merely a complementary leisure activity. It argues that thermal territories can function as enabling environments for healthy ageing by integrating therapeutic resources, wellness practices and social interaction opportunities. However, the extent of this contribution is contingent upon accessibility conditions across the entire tourism system. The findings are expected to demonstrate that accessibility is not only a matter of inclusion but a fundamental determinant of the effectiveness of thermalism in promoting longevity. By addressing cumulative and systemic barriers, thermal destinations can enhance both health outcomes and territorial cohesion. The study ultimately proposes a reconceptualisation of thermal territories as “longevity-supporting systems”, where accessibility, health promotion and sustainable development are intrinsically interconnected.

Keywords | Thermalism, Longevity, Accessibility, Healthy Ageing, Territorial Development.

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PERCEÇÕES DE GESTORES DE UNIDADES DE ALOJAMENTO E DE RESTAURAÇÃO SOBRE AS DIMENSÕES AMBIENTAL, SOCIAL E ECONÓMICA DA SUSTENTABILIDADE

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Resumo

Objetivo | O aumento da pressão sobre os recursos naturais, associada, em grande parte, aos impactes das alterações climáticas, torna cada vez mais imperativa a necessidade de adoção, em grande escala, de práticas sustentáveis no setor do turismo (Lopes et al., 2022). Neste contexto, o presente estudo, desenvolvido no âmbito do projeto SUSTENTUR, avalia de que forma é realizada a adoção de práticas de sustentabilidade por gestores das atividades turísticas nos municípios de Barcelos, Braga, Guimarães e Vila Nova de Famalicão, para uma subsequente definição de estratégias e barreiras a ultrapassar.

Metodologia | A abordagem metodológica adotada assenta num desenho de investigação do tipo mixed-methods, com a combinação de métodos quantitativos e qualitativos. Numa primeira fase, foram recolhidos dados, através de 399 inquéritos por questionário aplicados aos proprietários, gerentes e funcionários de unidades de alojamento e restaurantes, cujos resultados já foram publicados (Vareiro et al., 2025). Numa fase subsequente, que sustenta a presente comunicação, foram realizadas 12 entrevistas semiestruturadas a gestores de unidades de alojamento (n=8) e de restauração (n=4), distribuídas pelos quatro municípios referidos. As entrevistas foram, posteriormente, transcritas e tratadas com recurso ao software MAXQDA e à Análise de Conteúdo, permitindo a identificação de padrões e perceções dos entrevistados, associados às dimensões ambiental, social e económica da sustentabilidade.

Resultados | Os resultados indicam a adoção crescente de práticas sustentáveis, particularmente ao nível da eficiência energética, gestão de resíduos e a otimização do consumo de recursos, frequentemente motivadas por razões económicas, como a redução de custos operacionais. Ao nível social, evidenciam-se práticas de inclusão e envolvimento com a comunidade local, enquanto a dimensão económica surge como tema central na preocupação com a qualidade do serviço e a fidelização de clientes. No entanto, persistem desafios relevantes, nomeadamente barreiras financeiras, resistência à mudança de paradigma e limitações estruturais e fiscais que condicionam a implementação de estratégias mais robustas. Adicionalmente, os resultados evidenciam uma perceção ainda limitada da sustentabilidade como resposta direta às alterações climáticas, sendo frequentemente encarada numa perspetiva operacional e económica. O estudo contribui para a compreensão das práticas e dos desafios da sustentabilidade no turismo à escala local com a definição e a reflexão das estratégias de adaptação e mitigação, bem como para o reforço da competitividade e a resiliência dos destinos turísticos, através de uma maior articulação entre os diferentes agentes do setor.

Palavras-chave | Turismo, Práticas sustentáveis, Alterações climáticas, Gestores turísticos, Transição para a Sustentabilidade no Turismo.

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O PAPEL DAS CCDR E DAS CIM NO CICLO DAS POLÍTICAS PÚBLICAS EM PORTUGAL: O CASO DAS POLÍTICAS DE MOBILIDADE URBANA**Carlos Barros Abreu**

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Objetivo | As Comissões de Coordenação e Desenvolvimento Regional (CCDR) e as Comunidades Intermunicipais (CIM) operam num sistema administrativo marcado pela ausência de um nível intermédio de governação com legitimidade democrática, recursos próprios e mandato territorial integrado (Ferrão, 2015). As CCDR e as CIM têm funcionado como respostas adaptativas a esse vazio: as primeiras com funções de planeamento regional e gestão de fundos; as segundas como entidades associativas municipais com competências delegadas de coordenação supramunicipal. Pretende-se analisar o papel efetivo de ambas no ciclo das políticas públicas, tomando a mobilidade urbana como exemplo. A Lei n.º 52/2015 e a Lei n.º 50/2018 atribuíram às CIM competências de autoridade de transportes intermunicipais, tornando a mobilidade um teste à arquitetura de governação existente. Assim, pretende-se identificar qual o papel que desempenham as CCDR e as CIM no ciclo das políticas de mobilidade, e em que medida a heterogeneidade da sua intervenção revela custos da ausência de um nível intermédio da governação em Portugal?

Metodologia | A metodologia articula três componentes. O enquadramento teórico mobiliza o ciclo de políticas públicas (Howlett, Ramesh & Perl, 2009; Hill & Hup, 2002), a governação multinível e o vazio intermédio (Hooghe & Marks, 2003; Ferrão, 2015), a abordagem place-based (Barca, 2009) e a governação de transportes (Marsden & Reardon, 2017; Lucas, 2012; Verilinghieri & Scwanen, 2020). A análise institucional e documental que reconstitui o quadro normativo, designadamente, a Lei n.º 52/2015, o DL n.º 21/2024, a Lei n.º 50/2018 e o Portugal 2030, mapeando funções formais e reais das CCDR e CIM por fase do ciclo. Por fim, a análise empírica que compara a implementação das políticas de mobilidade pelas CIM, correlacionando a intensidade da governação intermédia com indicadores de acessibilidade (IMT, AD&C, INE, AMT).

Resultados esperados | Os resultados organizam-se em dois planos. No plano analítico, espera-se revelar que as CCDR e CIM intervêm predominantemente nas fases de programação e execução, com presença residual na agenda-setting, monitorização e avaliação. No plano empírico, a mobilidade demonstrará que a heterogeneidade de implementação das CIM é estruturalmente determinada pela ausência de governação intermédia, nomeadamente através da análise de procedimentos com resultados diversos como, por exemplo, a contraposição do VAMUS, a concessão de serviço público de transporte coletivo intermunicipal da CIM Algarve (AMAL, 2021), com o MobiViseuDãoLafões, a Concessão de serviço público de transporte coletivo intermunicipal da CIM Viseu Dão Lafões (CIM Viseu Dão Lafões, 2025). A contribuição central é demonstrar que a ausência de um nível intermédio de governação em Portugal constitui um vazio institucional com custos na eficácia e equidade das políticas territoriais, usando as políticas de mobilidade urbana como ponto de partida para a demonstração empírica.

Palavras-chave | Governação Multinível, Mobilidade Urbana, Coesão Territorial, Comissões de Coordenação e Desenvolvimento Regional, Comunidades Intermunicipais.

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**UNESCO DESIGNATION AS A FACTOR OF TERRITORIAL COHESION?
RESIDENTS' PERCEPTIONS OF THE IMPACTS OF THE CREATIVE CITY
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Purpose | In the context of contemporary cultural policies, international distinctions are often presented as instruments of territorial valorisation, external projection, and economic dynamization. However, their effects are not distributed equally across the territory and may give rise to unequal forms of appropriation among different groups and places. From this perspective, the present study analyses the perceptions of Barcelos residents and the ways in which they assess the impacts of the municipality's designation as a UNESCO Creative City in the field of Crafts and Folk Art. It discusses the extent to which this recognition contributes to territorial cohesion or reveals inequalities in the social appropriation of its benefits.

Methodology/Approach | The study is based on 619 questionnaires administered to residents of the municipality of Barcelos between June 2024 and September 2025, with statistical processing carried out in SPSS using descriptive statistical analysis and non-parametric tests.

Expected Results | The results show that 67.5% of respondents are aware of the UNESCO designation, while 32.5% reported being unfamiliar with it, indicating a socially significant, though still incomplete, level of diffusion. Among the most widely recognized impacts are the increase in the number of visitors (mean=4.06 on a five-point Likert scale), the valorization and recovery of local traditions (mean=3.97), and the strengthening of Barcelos' image and visibility (mean=3.97). By contrast, the economic and social effects, particularly job creation and improvements in living conditions, are viewed with greater caution and uncertainty. This pattern suggests that the designation generates more visible symbolic and cultural effects than material transformations clearly perceived by the resident population. In addition, prior knowledge of the title influences how these impacts are interpreted: informed residents tend to assess its positive effects more favorably, whereas a lack of awareness reinforces the gap between the city promoted institutionally and the city experienced in everyday life. The UNESCO designation functions as a partial factor of territorial cohesion. Although it contributes to the symbolic, cultural, and identity-based reinforcement of the territory, it does not, in itself, ensure a balanced distribution of benefits or a homogeneous perception of its effects among residents. Rather than operating as an automatic mechanism of cohesion, the title emerges as an opportunity whose translation into more balanced territorial development depends on inclusive local policies, wider circulation of information, and more effective involvement of the population.

Keywords | Municipality of Barcelos; Residents' perceptions; impacts; UNESCO Creative City.

**TERRITORIAL RETAKINGS AND ALTERNATIVE TERRITORIAL PRACTICES:
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Abstract

Purpose | Territorial inequalities remain a central concern in debates on regional development and sustainability. In Latin America, these inequalities are strongly connected to historical processes of land dispossession and uneven territorial development that continue to shape contemporary spatial dynamics. Within this context, Indigenous territorial movements have emerged as important actors in reconfiguring territories and seeking alternative forms of development. This paper discusses territorial retakings promoted by Kaingang communities in southern Brazil, focusing on two Indigenous territories located in the state of Rio Grande do Sul. These processes arise in response to long-standing territorial expropriation and ongoing land disputes, revealing tensions between dominant development models and Indigenous territorial practices. The Kaingang experience demonstrates that territorial retakings are not only political actions aimed at recovering land, but also processes that reactivate collective memory, cultural practices, and forms of territorial organization. Particular attention is given to practices related to traditional resource management and food systems, which are embedded in Kaingang social life and express relationships between territory, culture, and environment. By examining these experiences, the study contributes to discussions about territorial inequalities and sustainability by highlighting how Indigenous territorial practices may reveal alternative pathways of territorial organization and development.

Methodology/Approach | The research adopts an interdisciplinary approach that combines contributions from regional studies, Indigenous research, and economic geography. Methodologically, the study is grounded in ethnohistorical research and oral history, allowing the reconstruction of historical processes of territorial dispossession and Indigenous resistance. The analysis also incorporates ethnographic observation, documentary analysis, and recorded interviews conducted with Kaingang community members and local leaders. Fieldwork focuses on two territorial retakings located in the municipalities of Farroupilha and Canela, in the state of Rio Grande do Sul, Brazil. These territories represent important contemporary expressions of Kaingang territorial agency and provide insights into how Indigenous communities negotiate land rights, territorial governance and cultural continuity. The ethnohistorical perspective allows the articulation of historical documentation, Indigenous narratives and contemporary territorial dynamics. This methodological approach makes it possible to analyze how Indigenous territorial practices relate to broader socio-spatial processes, including land conflicts, regional development and environmental sustainability.

Expected Results | The study expects to demonstrate that Kaingang territorial retakings represent processes of reterritorialization that combine historical memory, cultural continuity and collective action. These experiences reveal how Indigenous communities actively reshape territorial relations through practices rooted in ancestral knowledge and collective organization. The analysis also suggests that traditional resource management and Indigenous food practices can function as forms of territorial innovation grounded in cultural traditions and community knowledge. In this sense, Indigenous territorial movements challenge dominant paradigms of development and reveal alternative approaches to sustainability and territorial

organization. By examining the Kaingang case, the research contributes to broader debates on territorial inequalities by highlighting the role of historically marginalized actors in shaping territorial development and sustainability transitions.

Keywords | Territorial inequalities, indigenous territoriality, Kaingang, ethnohistory, sustainability.

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ART AS A LANGUAGE OF BELONGING: INCLUSION OF MIGRANT CHILDREN
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Purpose | This paper presents integrARTE, a social innovation project that uses art-based methodologies to promote the social inclusion of migrant children and their families in rural and low-density territories in Portugal. Migration has increased significantly in Portugal in recent years, particularly in rural areas that face demographic decline and aging populations. However, migrant communities in these territories often face social exclusion, language barriers, and difficulties in integration. The integrARTE project aims to address these challenges by fostering intercultural dialogue, improving language skills, strengthening the sense of belonging, and promoting social cohesion through art education and art therapy practices. The project is designed as a pilot intervention that can later be replicated in other rural territories.

Methodology/Approach | The project is based on an interdisciplinary and participatory approach that combines art therapy, non-formal education, and the CLIL methodology (Content and Language Integrated Learning), integrating artistic expression with Portuguese language learning. The intervention includes monthly artistic workshops involving migrant and local children, intercultural community sessions, and the co-creation of artistic outputs such as exhibitions, murals, and audiovisual productions. The project is implemented in partnership with local institutions, schools, municipalities, and academic partners responsible for monitoring and impact assessment. Impact evaluation is conducted using qualitative and quantitative methods, including questionnaires, interviews, focus groups, and linguistic progress assessment before and after the intervention. The project is currently being implemented in a primary school in Seia, involving 25 students from 8 different nationalities (Portugal, Angola, Morocco, France, Wales, Brazil, India, and the United States), providing an ongoing pilot case study for analysis.

Expected Results | The expected results include improved Portuguese language skills among migrant students, increased well-being and self-expression, stronger social bonds between migrant and local communities, and a greater sense of belonging among participants. The project also aims to reduce stereotypes and promote intercultural understanding within the local community. Preliminary results from the ongoing implementation show a very positive reception from students, teachers, and school staff. Participation has been increasing over time, with new students joining the sessions regularly, indicating strong engagement and interest. These early results suggest that art-based and participatory methodologies can be effective tools for promoting inclusion, emotional well-being, and intercultural dialogue in educational and community contexts, particularly in rural and low-density territories.

Keywords | Social inclusion, migration, art therapy, non-formal education, rural territories.

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O USO DAS PLATAFORMAS DIGITAIS NA PROMOÇÃO DA ACCOUNTABILITY: EVIDÊNCIA EMPÍRICA NOS MUNICÍPIOS PORTUGUESES**Carla Caetana**Management School, IPCA (Portugal)
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Objetivo | A accountability e a transparência assumiram um papel central no debate sobre a gestão pública, em particular no contexto da New Public Management e da New Public Governance. No governo local, estas exigências são ainda mais relevantes, uma vez que os municípios constituem o nível de governação mais próximo dos cidadãos e, por isso, desempenham um papel decisivo na promoção da confiança pública, da participação cívica e do escrutínio democrático. Neste enquadramento, o presente estudo tem como objetivo analisar o papel das plataformas digitais na promoção da accountability nos municípios portugueses, procurando compreender em que medida os websites institucionais disponibilizam informação financeira e não financeira que favorece a transparência, o acesso à informação e a responsabilização pública.

Metodologia | O estudo adota uma abordagem quantitativa, baseada na análise do conteúdo dos websites institucionais dos municípios portugueses. A investigação centra-se na construção de um índice de divulgação de informação financeira e não financeira, permitindo avaliar o grau de transparência digital praticado pelos municípios. Em concreto, pretende-se: i) medir o nível de divulgação de informação nos websites municipais; ii) identificar os itens com maior e menor nível de divulgação; e iii) analisar as características organizacionais que influenciam esse padrão de divulgação. A análise procurará ainda relacionar os resultados com a literatura sobre transparência, participação pública e transformação digital na administração local.

Resultados Esperados | Espera-se que os resultados revelem diferenças significativas entre municípios quanto ao nível de divulgação de informação, seja financeira ou não financeira. É provável uma divulgação mais consistente de informação de natureza obrigatória ou tradicionalmente valorizada, contrastando com uma menor presença de informação de cariz não financeiro, estratégico ou orientada para a sustentabilidade e o desempenho. A dimensão dos municípios será um fator determinante dos níveis de divulgação. Os resultados deverão contribuir para identificar boas práticas de transparência digital, bem como fragilidades na comunicação pública local, reforçando a discussão sobre a necessidade de plataformas mais interativas, acessíveis e orientadas para uma accountability mais dialógica e multidimensional.

Palavras-chave | *Accountability*, transparência, websites, municípios.

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ALGARVE'S SOCIAL INNOVATION LABORATORY: FROM MONCHIQUE TO CALDEIRÃO

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Abstract

Purpose | The Algarve region, in southern Portugal, has been affected by a series of frequent and severe forest fires in recent decades, which have determined high social, economic and environmental impacts. Extensive areas of forest territories in this region are now classified as high-risk fires in the period 2020-2030. There is limited local capacity and lack of association among forest owners to effectively manage forests, and low engagement of local communities in decision-making processes, notably related to forest policies. Participatory approaches to give voice and foster the active role of local communities in collaborative forest management have been generally absent.

Methodology/Approach | To face up to this huge challenge, a Social Innovation Laboratory (InnoLab) approach was first developed in the context of the Bridge Project (Bridging science and local communities to wildfire risk reduction) (FCT research project PCIF/AGT/0072/2019), implemented in Serra de Monchique. It was subsequently scaled out as InnoBRIDGE project (Raising awareness and local communication towards fire ignitions reduction in the region of Algarve), in Serra do Caldeirão, also in the Algarve region. The InnoLab is a participatory and collaborative approach that represents a collective and novel space where a set of multiple actors are engaged in dialogue and sharing of different types of knowledge, visions and experiences. The InnoLab contributes to the process of social learning and co-creation of new knowledge and practices focused on key aspects of forest fires risk reduction and sustainable forest management. Since 2022, the InnoLab has been involving representatives of forest-related public agencies, local governments, groups and associations, forest producers' organizations, companies, private forest owners and residents in a set of participatory sessions. Inspired by the Strategic Thinking for Sustainability approach – ST4S (Partidário, 2021), the InnoLab was designed and implemented through a sequence of participatory sessions, with a set of sequential purposes, namely: map territorial vulnerabilities and risks, create a community vision, identify the priorities for action, define the existing and necessary capacities and responsibilities to act upon, define the strategies for action, and lastly develop an Action Plan, collectively built by the local group and tailored to each context and local expectations of the forest community (Dias et al., 2024). In both Monchique and Caldeirão cases, before the first participatory session of the InnoLab, a biophysical characterization of the territories was developed providing for a diagnosis of the territorial conditions and dynamics (Antunes et al., 2025).

Subsequently several strategies for community involvement and information are developed to enhance local discussions on forest fires and to stimulate the participation of communities and their local representatives.

Expected Results | The InnoLab approach has contributed significantly to address two major challenges in reducing the fire risk and promoting a sustainable and resilient development in Monchique and Caldeirão forest territories: the need to strengthen actors' networks (Saad, 2022) and to increase the adaptive capacity of local communities (Soares, 2023). Currently, the InnoBRIDGE is (i) supporting the Monchique's Local Action Group in their journey to be committed and autonomous towards their Action Plan implementation, which has been tailored to the young population of that territory, aiming to attract them to the forest territories and uses; and (ii) implementing the InnoLab process in Caldeirão, now entering a final stage. This presentation aims to share the main results of these experiences, namely with evidences on the opportunities and challenges led by the scaling out of the social innovation laboratory approach, and on future barriers to scale up this towards broader systems and to different contexts.

Keywords | Social Innovation; Collaborative Laboratories; Scaling; Forest territories; Portugal.

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O PAPEL DA INTEROPERABILIDADE NA GESTÃO DA INFORMAÇÃO BANCÁRIA: O CASO DO MUNICÍPIO DE VILA NOVA DE FAMALICÃO**Florbela Martins**Management School, IPCA (Portugal)
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Objetivo | O presente artigo analisa o papel da interoperabilidade na melhoria do processo de conciliação bancária, através da proposta de um modelo de sistematização aplicado ao Município de Vila Nova de Famalicão. Partindo da constatação de que o processo de conciliação continua, em grande medida, dependente de procedimentos manuais, da consulta de múltiplos ficheiros e da interpretação de nomenclaturas bancárias não uniformizadas, o estudo procura demonstrar como a padronização da informação pode reduzir a morosidade, os erros e a dependência de conhecimento tácito. Pretende-se, assim, contribuir para uma gestão mais eficiente, fiável e automatizada da informação financeira municipal e sugerir uma metodologia replicável.

Metodologia | Trata-se de um trabalho aplicado, de natureza descritiva e analítica, com base em observação de procedimentos, análise de folhas de cálculo, extratos bancários e código VBA utilizado nos serviços financeiros. A investigação incidiu no levantamento e na caracterização do processo de conciliação atualmente em uso, na identificação das nomenclaturas adotadas por diferentes instituições bancárias e na construção de tabelas de correspondência entre sistemas. Com base nesse diagnóstico, foi desenvolvido um modelo de sistematização da conciliação bancária, parametrizado por tipo de movimento e por instituição bancária, com vista à futura automatização do processo e à integração entre o ERP municipal e os sistemas bancários.

Resultados Esperados | Os resultados evidenciam que a interoperabilidade constitui um fator decisivo para a melhoria da conciliação bancária, permitindo reduzir o tempo de processamento, aumentar a fiabilidade do registo contabilístico e diminuir a intervenção manual. Da interoperabilidade de todo o processo de conciliação bancária é esperada uma redução do tempo médio de conciliação perto de 100% e a eliminação de erros no cenário automatizado, o que mostra bem os ganhos expressivos de eficiência operacional da solução testada. Espera-se ainda que o modelo proposto contribua para a consolidação de práticas mais uniformes, para a valorização do papel dos profissionais administrativos e para a replicação futura da solução noutros municípios que utilizem o mesmo ERP, reforçando a transformação digital dos serviços públicos locais.

Palavras-chave | Interoperabilidade, conciliação bancária, automatização, eficiência operacional, municípios.

Agradecimento | Este estudo foi desenvolvido no Centro de Investigação em Contabilidade e Fiscalidade (CICF) e foi financiado pela Fundação para a Ciência e a Tecnologia (FCT) através de fundos nacionais com a referência UID/04043/2025 e doi <https://doi.org/10.54499/UID/04043/2025>.

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MAPPING THE INVISIBLE: AN SLAB-NETWORK APPROACH TO UNDERSTANDING INFORMAL NETWORKS IN SOCIAL LABS

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Abstract

Purpose | Social Laboratories, commonly called Social Labs (SLabs), represent collaborative, experimental platforms where diverse actors co-create and develop solutions to complex societal challenges in real-world settings (Hassan, 2014; Marschalek et al., 2022). Over the past decades, a wide range of Social Labs emerged under different labels, such as Living Lab (Galway et al., 2023; Hossain et al., 2018), Social Innovation Lab (Westley & Laban, 2014), and Real-World Lab (Schäpke et al., 2018), each carrying its own theoretical and methodological underpinnings. All these SLab-based initiatives are widely recognised as network-building spaces (Hassan, 2014; Kok et al., 2023) which bring together diverse actors, including government, civil society organisations and communities, to foster collaboration and strengthen informal, community networks to co-develop flexible, sustainable and context-based solutions to complex challenges. SLab capacity to build and strengthen informal actors' networks is structurally embedded in their core logic as network-based labs (Pawlicka Deger, 2020). Despite growing academic interest in SLab-Network approaches, in-depth investigation into how informal and community-based networks emerge and evolve within Social Labs settings remains unexplored (Kim et al., 2024). To fill this gap, this research developed a SLab-Network approach, combining Social Labs and Social Network Analysis (Borgatti et al., 2018; Wasserman & Faust, 1994), enabling to map, identify and evaluate SLabs' network structure, connectivity and dynamics, actors' structural positions, and how these informal networks evolve over time. SLab-Network approach was applied in two initiatives in Portugal: 1) Social Innovation Lab (InnoBRIDGE)³ with forest communities in fire-prone areas towards sustainable forest management; and 2) Landscape Living Lab (TOPIO)⁴ with rural communities to foster sustainable management of local landscapes. Through a mixed-method design combining systematic network analysis (SNA) and qualitative interviews, research enables theoretical, methodological and practical contributions. It advances understanding of Social Labs as active network-building spaces to strengthen informal network while addressing SLab-Network gaps within sustainability transitions perspective.

Methodology/Approach | Case Study Design (Stake, 2005; Yin, 2018), undertaking in-depth empirical investigation of Social Labs as network-building spaces to support and strengthen informal, community-based networks to address complex societal challenges. SLab-Network approach was applied in lab-based initiatives: SIlab (InnoBRIDGE) and Living Lab (TOPIO) through a mixed-method design combining systematic network analysis and in-depth interviews. Multi-method logic was adopted to ensure structural rigour, interpretive depth and methodological triangulation through Archival and Documentary Analysis, Network Mapping Technique (Net-Map) and Semi-structured Interviews. Collected data were analysed using two complementary procedures: Social Network Analysis (SNA) to identify SLab network's structure, connectivity and dynamics, evolution over time, and structural roles of actors within this informal, community networks, and Thematic Analysis to analyse key processes and patterns linked to the research purpose.

Expected Results | Communication will present findings from a comparative analysis (within- and cross-cases) of lab-based initiatives in Portugal, revealing structural properties of SLab-network (connectivity

³ InnoBRIDGE – Connecting People: <https://innobridgealgarve.wixsite.com/innobridge>

⁴ TOPIO – Towards democratic landscape observation through geoinformatics and public participation: <https://topioproject.eu/>

patterns, resource flows, and actor roles), and how these evolve over time. Findings are expected to demonstrate how Social Labs function as active network-building spaces that progressively strengthen informal, community ties. Results will validate SLab-Network as a replicable approach, contributing to advance the understanding of SLab-initiatives in strengthening informal networks towards sustainability transitions in Portugal, Europe and beyond.

Keywords | Social Labs, Informal Community Networks, Social Network Analysis, Sustainability Transitions.

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METODOLOGIAS DE AVALIAÇÃO DAS BIO-REGIÕES: EVIDÊNCIAS, LACUNAS E PROPOSTA DE INDICADORES ALINHADOS COM OS ODS E O PACTO ECOLÓGICO EUROPEU**Rui Lagoa**

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O surgimento das Bio-Regiões como modelos territoriais de sustentabilidade coloca desafios significativos aos instrumentos convencionais de planeamento e avaliação de políticas públicas, particularmente em territórios de baixa densidade. Apesar do crescente interesse internacional, persiste uma lacuna metodológica devido à ausência de quadros integrados de avaliação capazes de articular os Objetivos de Desenvolvimento Sustentável (ODS) com o Pacto Ecológico Europeu, tendo em conta as especificidades territoriais. Este estudo visa desenvolver um quadro de avaliação integrado e territorialmente sensível para Bio-Regiões, alinhado com os ODS e o Pacto Ecológico Europeu.

Para tal, foi realizada uma revisão sistemática de 118 artigos científicos e documentos institucionais para identificar as principais dimensões avaliativas, abordagens metodológicas e tipos de indicadores utilizados na literatura. Os resultados revelam uma forte predominância de abordagens qualitativas, uso limitado de indicadores mensuráveis e concentração nos ODS 2, 11, 12, 13 e 15. Uma análise de coocorrência dos ODS identifica um núcleo altamente interligado centrado nos ODS 2, 11, 12, 13, 15 e 17, com o ODS 12 a assumir um papel fundamental de articulação, reforçando a coerência empírica do quadro proposto.

Ao combinar um mapeamento sistemático das práticas de avaliação com uma análise relacional da coocorrência dos ODS, o estudo propõe uma matriz integrada de avaliação que liga explicitamente dimensões de sustentabilidade, agendas globais e contextos de governação. A matriz está estruturada em torno das dimensões ambientais, sociais e económicas da sustentabilidade, incorporando aspetos institucionais e territoriais como fatores transversais. O quadro proposto destina-se a apoiar o desenho, monitorização e avaliação de políticas públicas em processos de transição ecológica sensíveis ao contexto, contribuindo para uma governação territorial sustentável.

Palavras-chave | Bio-Regiões; Objetivos de Desenvolvimento Sustentável; Pacto Ecológico Europeu; Matriz de Avaliação; Indicadores de sustentabilidade.

ALINHANDO GESTÃO INTER-REGIONAL E SUSTENTABILIDADE: UM MODELO DE *BALANCED SCORECARD* PARA O TRANSPORTE PÚBLICO**Patrícia Quesado**

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Objetivo | O presente estudo tem como objetivo propor a implementação do *Balanced Scorecard* (BSC) numa empresa concessionária de transporte público de passageiros, enquadrando esta ferramenta no contexto da gestão, da coesão territorial e da sustentabilidade, com vista à melhoria da gestão estratégica e da eficiência organizacional. Pretende-se demonstrar como o BSC pode contribuir para reduzir desigualdades territoriais, promovendo um acesso mais equitativo à mobilidade e alinhando a estratégia organizacional com objetivos operacionais e promovendo o desenvolvimento sustentável, a qualidade do serviço e a criação de valor público.

Metodologia | A investigação adota uma abordagem qualitativa, baseada num estudo de caso desenvolvido na empresa Guimabus. A recolha de dados foi realizada através de análise documental e de entrevistas semiestruturadas a decisores-chave (*Chief Financial Officer* (CFO) e *Chief Executive Officer* (CEO)), permitindo analisar os mecanismos de gestão estratégica e controlo de desempenho no setor dos transportes públicos.

Resultados | Espera-se que a implementação do BSC contribua para reforçar o alinhamento entre políticas de mobilidade, objetivos estratégicos e necessidades territoriais, promovendo maior coesão e eficiência na prestação do serviço público. Os resultados evidenciam o potencial do BSC para integrar indicadores financeiros e não financeiros, apoiar decisões orientadas para a sustentabilidade e melhorar a acessibilidade e qualidade do serviço, reduzindo assimetrias regionais. Contudo, identificam-se desafios relacionados com a complexidade da implementação, a articulação entre níveis de governança e a necessidade de adaptação organizacional.

Palavras-chave | *Balanced Scorecard*, gestão inter-regional, coesão territorial, mobilidade sustentável, gestão estratégica.

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PORT DECARBONIZATION AS A SYSTEMIC INNOVATION PROCESS: A COMPLEXITY-PARADOX PERSPECTIVE ON TERRITORIAL GOVERNANCE AND GREEN HYDROGEN IN EUROPEAN COHESION

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Abstract

Purpose | This paper examines port decarbonization as a systemic innovation process within the broader context of European territorial cohesion and energy transition. Positioned within the thematic domain of Energy Transition, it advances a conceptual and empirical understanding of how ports evolve from logistical infrastructures into multi-functional energy and governance nodes. By integrating Complexity Theory and Paradox Theory, the study analyses how smart ports contribute to multi-level governance systems and emerging green energy ecosystems, with particular attention to their role in structuring territorial cohesion through energy transition pathways.

Methodology/Approach | The study adopts a qualitative, theory-informed comparative case study design focusing on the Portuguese ports of Sines and Leixões. The methodological approach combines:

- Secondary data from strategic plans, institutional reports, policy frameworks, and academic literature;
- Primary data derived from a semi-structured expert interview conducted in prior research by Veloso-Carvalho and Sarkar (2026a);
- A triangulation strategy to enhance analytical robustness and empirical grounding.

The analysis is structured around five key dimensions influencing decarbonization strategies: (1) targets, (2) technological pathways, (3) public policy alignment, (4) partnerships, and (5) expected outcomes.

Sines and Leixões represent contrasting yet complementary systems:

- Sines operates as a large-scale industrial and logistics hub embedded in international energy corridors;
- Leixões functions as a regional, innovation-driven port closely integrated with urban-industrial ecosystems.

The analytical framework is further supported by a dual theoretical lens:

- Complexity Theory, framing ports as adaptive, non-linear systems;
- Paradox Theory, explaining how competing strategic demands are simultaneously managed.

Expected Results | Findings demonstrate that port decarbonization unfolds as a non-linear, adaptive, and multi-scalar process shaped by interactions among heterogeneous actors and institutional levels. Three main empirical insights emerge.

First, decarbonization pathways are structurally differentiated. Sines prioritizes large-scale infrastructure, hydrogen production, and global energy positioning, whereas Leixões emphasizes operational efficiency, regional integration, and innovation ecosystems. Interview evidence reinforces that “scale determines feasible decarbonization strategies,” highlighting the territorial embeddedness of technological choices.

Second, decarbonization is driven by persistent strategic tensions. Ports must simultaneously balance growth and sustainability, global integration and local embeddedness, and centralized strategy with distributed collaboration. These tensions are not resolved but leveraged as drivers of innovation, supporting a paradox-based interpretation of strategic management.

Third, green hydrogen emerges as a key territorial opportunity vector. The analysis identifies a functional complementarity system:

- Sines as a production and export hub,
- Leixões as a distribution, application, and innovation node.

Interview insights highlight that hydrogen operates as a systemic connector across territories, enabling new value chains, inter-port complementarities, and integration into European energy corridors.

Building on these findings, the paper proposes the **Complexity–Paradox–Territorial Cohesion Model**, which conceptualizes decarbonization as emerging from the interaction between systemic complexity and strategic paradoxes within a multi-level governance framework. At the core of the model lies “Decarbonization as a systemic innovation process,” supported by two interacting layers—Complexity and Paradox—whose integration explains adaptive outcomes in port systems. Digitalization is positioned as a secondary enabling factor, facilitating coordination, efficiency, and system integration.

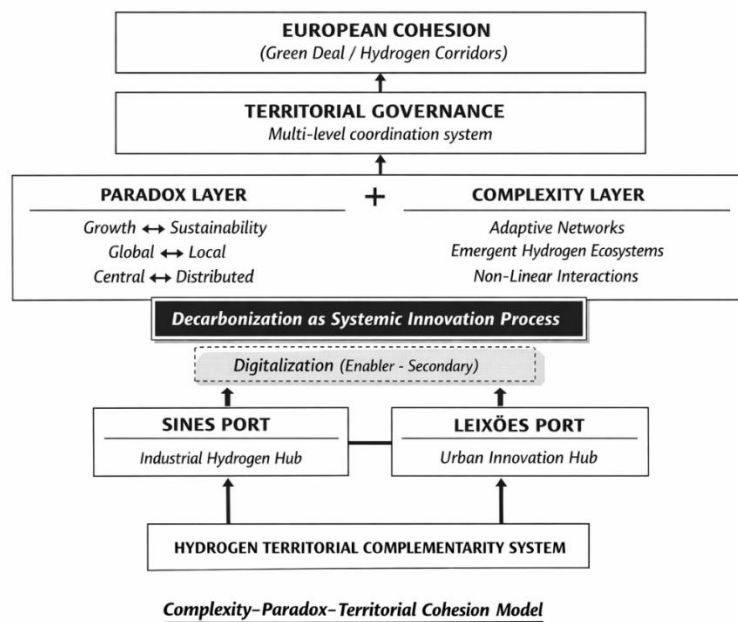


Figure 1: Complexity–Paradox–Territorial Cohesion Model.

Source: Author’s own elaboration

The conceptual model represents port decarbonization as a systemic innovation process resulting from the interaction between two analytical layers—Paradox Layer and Complexity Layer—whose integration (depicted by the “+” symbol) explains the emergence of adaptive solutions in smart ports. Digitalization is represented as a secondary enabling factor. At the territorial level, the model highlights the functional complementarity between the Port of Sines (large-scale production/export hub) and the Port of Leixões (regional innovation/distribution hub) within the green hydrogen value chain, forming a hydrogen territorial complementarity system. This system is embedded within a multi-level territorial governance framework, contributing to European cohesion in the context of the energy transition (Green Deal and hydrogen corridors).

The model further highlights the emergence of a **hydrogen territorial complementarity system**, linking differentiated port functions into a coherent spatial configuration embedded within European cohesion dynamics. Ports are thus conceptualized as critical nodes in the development of green hydrogen corridors and integrated energy-logistics systems.

Contribution and Implications

The study contributes to the literature in three ways:

- (i) by reconceptualizing port decarbonization as a systemic and multi-level innovation process;
- (ii) by integrating Complexity and Paradox perspectives to explain strategic dynamics;
- (iii) by identifying green hydrogen as a territorial structuring vector enabling functional complementarity between ports.

From a policy perspective, the findings highlight the importance of coordinated multi-level governance frameworks capable of leveraging territorial differentiation rather than homogenizing strategies. The results also suggest that fostering complementarities between ports can enhance both energy transition effectiveness and regional cohesion.

Future research should expand primary data collection, further investigate governance mechanisms, and empirically validate hydrogen-based complementarities across European port systems.

Keywords | Port Decarbonization, Energy Transition, Territorial Governance, Green Hydrogen, European Cohesion.

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ENVELHECIMENTO, CUIDADOS DE LONGO PRAZO E DISPARIDADES TERRITORIAIS: EVIDÊNCIA DE REGIÕES TRANSFRONTEIRIÇAS EM PORTUGAL E ESPANHA**Patrícia Martins**

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Resumo

Objetivo | O envelhecimento populacional está a reconfigurar os territórios europeus, intensificando as desigualdades demográficas e socioeconómicas e agravando as disparidades entre regiões urbanas dinâmicas e territórios de baixa densidade. Estas assimetrias colocam desafios relevantes ao Estado social: o aumento da longevidade pressiona a despesa social e, simultaneamente, fragiliza a capacidade produtiva e diminui a receita pública fiscal. Neste contexto, a organização dos cuidados de longo prazo assume um papel central nas políticas públicas, constituindo o objeto de estudo principal do presente trabalho. Embora os cuidados institucionais permaneçam essenciais, os modelos de base comunitária e domiciliária (“ageing in place”), articulando sistemas de suporte social formais e informais e o contributo de tecnologias de assistência, podem constituir respostas mais eficientes e sustentáveis, sobretudo em regiões periféricas,

Metodologia | Este trabalho assenta numa análise estatística territorial comparativa entre Portugal e Espanha, com especial enfoque nas regiões transfronteiriças do Douro, Salamanca e Zamora. O trabalho analisa de que forma a interação entre envelhecimento, baixa densidade populacional e elevados níveis de dependência gera pressões diferenciadas sobre os sistemas de cuidados de longo prazo. A análise incide sobre as taxas de cobertura e utilização das respostas sociais, bem como o respetivo financiamento público, evidenciando diferenças estruturais entre territórios.

Resultados Esperados | Os resultados sugerem que o reforço dos cuidados baseados na comunidade pode contribuir não só para a sustentabilidade da despesa pública, mas também para a coesão territorial, ao fortalecer redes locais de cuidado e ao permitir que a população idosa envelheça nas respetivas regiões.

Conclui-se que a resposta às desigualdades territoriais em sociedades envelhecidas exige abordagens de política pública territorialmente informadas e coordenadas, assentes na articulação entre governação multinível, capacidade institucional local e co-construção de place-based policies. Estes fatores são fundamentais para promover um desenvolvimento territorial mais equilibrado, inclusivo e sustentável.

Palavras-chave | Envelhecimento populacional, Desigualdades territoriais, Cuidados de longo prazo, Governação multinível.

Financiamento | Cofinanciado por Fundo Europeu de Desenvolvimento Regional (FEDER) através do Programa de Cooperação Interreg VI-A Espanha-Portugal (POCTEP) 2021-2027.

DETERMINANTES DEMOGRÁFICOS DA DESPESA PÚBLICA SOCIAL NA UNIÃO EUROPEIA

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Objetivo | A União Europeia (UE) enfrenta importantes desafios demográficos, sociais, ambientais e geopolíticos aos quais tem de dar resposta num contexto em rápida transformação. A atual estrutura demográfica da UE, caracterizada pelo envelhecimento populacional e pelo aumento dos movimentos migratórios, tem importantes implicações ao nível das finanças públicas, na medida em que a resposta a estes desafios demográficos apela a uma maior intervenção do Estado, colocando maior pressão política sobre a despesa pública social, ao nível da saúde, educação e proteção social.

Metodologia | Este estudo tem como objetivo investigar a evolução da despesa pública social na UE, bem como os efeitos decorrentes de uma Europa mais envelhecida e que acolhe um número crescente de trabalhadores estrangeiros e respetivas famílias. Em concreto, analisam-se as determinantes demográficas da despesa pública social, nos 27 países da UE desde a criação da zona euro em 1999. Em termos metodológicos, foram usadas diferentes especificações estimadas pelo método de efeitos fixos aplicado a dados em painel. São exploradas duas hipóteses: (1) o enquadramento da política económica europeia afeta a relação entre a evolução das componentes da despesa social (saúde, educação e proteção social) e as variáveis económicas e orçamentais; (2) os diferentes modelos de Estado Social contribuem para diferentes relações entre a evolução das componentes da despesa social e as variáveis demográficas (envelhecimento e imigração).

Resultados Esperados | Em geral, os resultados obtidos indicam que o aumento do envelhecimento se traduziu numa diminuição da taxa de crescimento real das despesas em saúde nos países da velha Europa e nos países do leste europeu, o que parece sugerir que os cuidados de saúde não estão a acompanhar o aumento da longevidade da população. Adicionalmente, apontam para uma relação negativa entre imigração e despesas em educação nos países da velha Europa e para a existência de uma relação inversa entre imigração e proteção social nos países do leste europeu. As relações estimadas sublinham a necessidade de investigação adicional, sendo de particular interesse no domínio das escolhas políticas relativamente à dimensão do Estado Social e à respetiva carga fiscal. Essas escolhas desempenham um papel importante no futuro da Europa porque determinam a coesão social e o apoio dos eleitores a políticas democráticas.

Palavras-chave | Estado social, desafios demográficos, despesa pública, UE.

Financiamento | Este trabalho é financiado por fundos nacionais através da FCT – Fundação para a Ciência e a Tecnologia, I.P., no âmbito do projeto UID/04011/2025.

MOBILE APP AVAILABILITY IN PORTUGUESE MUNICIPALITIES: AN ANALYSIS BY URBAN TYPOLOGIES AND TEMPORAL EVOLUTION

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Abstract

Purpose | Globally, governments have been relying on mobile apps as a complementary means of providing public services, given that they facilitate access to services and are available 24 hours a day via the internet (Sharma et al., 2018). However, not all the population has internet access or sufficient digital literacy to master technology, particularly in rural areas with older populations (Idrus et al., 2025). In this sense, this study aims to characterize the Portuguese territory in terms of app use, highlighting the disparities between urban, semi-urban and rural typologies. The period analyzed covers 2018 to 2023, allowing analysis of the effect of the COVID-19 pandemic, which boosted the use of technology in the public sector (Mutambik & Almuqrin, 2024).

Methodology/Approach | This study presents a quantitative methodology for statistical analysis and exploratory geographic analysis of secondary data on the availability of mobile apps to users across the 308 Portuguese municipalities. Among other aspects, maps are produced to identify areas that invest in mobile apps, recognizing that geographically close municipalities may exert mutual influence or share characteristics that lead to greater or lesser investment in technology. Statistically, the analysis is segmented into urban, rural, and semi-urban municipalities, according to the typology of the National Institute of Statistics, to assess the influence of geographic context on digitalization. In addition, annual growth rates in app availability are calculated to assess the pandemic's impact.

Results | Nationally, the results show that, from 2018 to 2022, the availability of municipal mobile apps increased, with a slight decrease in 2023. The year 2021 recorded the highest annual growth rate, around 12%, attributed to the effects of the pandemic the previous year, which heightened the need to digitize public services. In the semi-urban and rural typologies, this year also saw the highest annual rate of municipalities making mobile applications available, while in the urban context, the maximum rate was recorded in 2022. This may indicate that urban municipalities, despite being generally more developed, responded later to the pandemic's impacts. Regarding the weight of municipalities that invested in mobile applications within their respective typology, it is observed that, from 2018 to 2023, this weight is greater in the urban context, followed by the semi-urban, and finally the rural. These results provide a basis for future research to understand why municipalities in rural contexts invest the least in mobile applications.

Keywords | Mobile apps, smart government, municipalities, urban-rural divide, digital transformation.

Acknowledgments | This research was funded by FCT – Fundação para a Ciência e a Tecnologia, I.P., and the Ministério da Educação, Ciência e Inovação, under the project 2024.03416.BD.

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GOVERNANÇA MULTINÍVEL E ESPECIALIZAÇÃO INTELIGENTE EM PORTUGAL

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Resumo

Desde a Estratégia de Lisboa (2000), a União Europeia (UE) tem sido confrontada com a necessidade de superar um défice de inovação, que limita o desenvolvimento regional, condicionado a coesão territorial. Gradualmente, esta preocupação consolidou-se na defesa de que as regiões deveriam considerar e enfatizar as características sociais e económicas que lhes são distintivas, tomando-as como elementos propulsores de uma visão estratégica de desenvolvimento. É a partir desta ideia que o conceito de especialização inteligente ganha espaço na agenda pública e decisória, entendido como âncora subjacente a uma estratégia multianual, assente na concentração de recursos num número limitado de prioridades. O Relatório Barca (2009) contribuiu para enquadrar este conceito, encarando-o como uma abordagem possível para reformar a Política de Coesão da UE, algo que se materializou no Quadro Financeiro Plurianual (QFP) do período 2014-2020, o qual posicionou a especialização inteligente como uma condição *ex ante* para a obtenção de fundos. A consolidação desta abordagem conduziu à sua continuidade e reforço no QFP subsequente (2021-2027), agora como condição habilitadora para o acesso a fundos. Ao longo destes anos, estas estratégias têm sido implementadas a partir de múltiplos modelos de governação. Em Portugal, a sua concretização ocorreu a partir de uma desagregação a dois níveis – com uma Estratégia Nacional de Especialização Inteligente e sete Estratégias Regionais de Especialização Inteligente, associadas a cada uma das NUTS 2 de Portugal⁵. Neste contexto, tendo como base uma análise documental de políticas públicas, a presente comunicação propõe-se enquadrar e analisar a evolução da implementação destas estratégias em Portugal, nomeadamente no que concerne aos arranjos de governação e de diálogos multinível que lhes estão subjacentes. Destaca-se a organização da ENEI em três níveis funcionais – coordenação política, coordenação técnica e acompanhamento –, bem como a diversidade de modelos associados a cada EREI, adaptados às especificidades institucionais e territoriais de cada Região. De igual forma, esta comunicação pretende posicionar as estratégias de especialização inteligente em relação a políticas percursoras – caso particular das Estratégias de Eficiência Coletiva (EEC) no âmbito do Quadro de Referência Estratégico Nacional (QREN), bem como face a estratégias ou políticas que, nos últimos anos, vêm orientando o desenvolvimento económico de Portugal e da UE – casos das Agendas Mobilizadoras provenientes do Programa de Recuperação e Resiliência (PRR) ou da Plataforma de Tecnologias Estratégicas para a Europa (STEP), oriunda da UE. Esta análise procurará evidenciar o que se considera ser a consolidação da especialização inteligente enquanto abordagem multinível, potencialmente promotora de um desenvolvimento territorialmente mais coeso e inclusivo (Rodrigues & Ramos, 2018), destacando igualmente a sua relevância no contexto dos debates contemporâneos em curso na UE em torno do tema da competitividade, tal como explicitados nos Relatórios Letta e Draghi (2024).

Palavras-chave | Agendas mobilizadoras, desenvolvimento regional, especialização inteligente, estratégias de eficiência coletiva, governança multinível.

⁵ Baseada na classificação de NUTS 2 de 2013: Região Norte, Região Centro, Área Metropolitana de Lisboa, Região do Alentejo, Região do Algarve, Região Autónoma dos Açores e Região Autónoma da Madeira

DETERMINANTS OF CASSAVA AND CASSAVA-BASED PRODUCTS CONSUMPTION IN ANGOLA: A COMPARATIVE ANALYSIS USING PROBIT MODELS

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Abstract

Purpose | This study analyzes the socioeconomic, behavioral, and perceptual determinants of cassava and its derivatives consumption in Angola, with a comparative focus on distinct territorial contexts: urban (Luanda) and peri-urban/rural (Malanje). The research is grounded in a microeconomic and behavioral perspective, aiming to understand how individual characteristics, product attributes, and perceived value dimensions influence the probability of a consumer being associated with an urban residence profile.

Methodology | The analysis is based on primary data collected from 416 consumers, adopting a quantitative approach structured in two complementary stages. In the first stage, descriptive statistics and analysis of variance (ANOVA) are employed to characterize sociodemographic profiles and identify statistically significant differences between the two territorial contexts. In the second stage, four independent Probit models are estimated for the consumption of fresh cassava, bombó, roasted cassava flour, and fuba de bombó, using maximum likelihood estimation with robust standard errors. This approach allows capturing the relationship between explanatory variables and the probability of belonging to an urban context.

Expected Results | The ANOVA results reveal structurally significant territorial differences, with urban consumers exhibiting higher levels of education and income, while peri-urban/rural consumers are characterized by larger household sizes and a higher number of dependents. The econometric results show consistent patterns across the different products: product attributes, certification, health perceptions, and functional value significantly increase the probability of urban residence, whereas food security concerns and social value are more strongly associated with the peri-urban/rural context. Bombó emerges as a hybrid product, combining traditional consumption characteristics with attributes valued in urban markets.

From an analytical perspective, the findings suggest the existence of territorial segmentation in cassava consumption, reflecting structural differences in food systems and consumer behavior patterns. In terms of implications, the study provides relevant empirical evidence for the design of territorially differentiated public policies, particularly in the areas of food security, support for family farming, and the development of cassava value chains.

Keywords | Cassava and derivatives; Food consumption; ANOVA; Probit models; Territorial segmentation; Angola.

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BEER AS A SUSTAINABLE TERRITORIAL DRIVER: PRODUCTIVE LINKAGES, GASTRONOMY AND VALUE CAPTURE IN CHILE (2014 - 2021)

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Abstract

Against a backdrop of three consecutive years of volume decline in Chile's beer industry - with per capita consumption reaching 52.5 litres and total output of 10.5 million hectolitres at the close of 2025 (ACECHI, 2026) - the question of how to sustain the territorial economic value of this activity has become increasingly urgent. This contraction, attributed to both cyclical factors and structural shifts in consumption patterns among younger generations, reinforces the need to examine whether the industry's prior expansion - from approximately 100 breweries in the early 2000s to over 1,000 productive units by 2021 - generated sustainable productive linkages with the local economy, and to what extent the value created was effectively retained within the territory.

This paper analyses the productive structure of beer manufacturing in Chile through a sectoral input-output framework, drawing on the 2021 National Input-Output Matrix published by the Banco Central de Chile and complementary data from Aduana Chile and CORFO innovation programmes, covering the period 2014 - 2021. The analysis is organised around three dimensions. First, we map the industry's backward linkages, identifying its main intermediate inputs - road freight transport (USD 230.7M), metal product manufacturing (USD 163.6M), and glass production (USD 73.3M) - alongside an import dependency in key inputs (malt, hops) of USD 168.8M, revealing structural sustainability vulnerabilities in the supply chain. Second, we examine the industry's forward linkages, highlighting its connections with restaurants (USD 21.5M) and entertainment activities as upstream links to the gastronomic-tourism sector, while final household consumption constitutes the primary destination of production (USD 1,344.4M). Third, we calculate and compare output, income and employment multipliers for beer, wine and spirits between 2014 and 2021: the income multiplier for beer rose from 4.76 to 5.10 - the highest among the three beverages and consistent with international patterns observed in Germany, Belgium and Brazil - while the employment multiplier declined from 68.8 to 46.4, reflecting a process of productive modernisation with direct implications for territorial labour development.

The results reveal a structural paradox with consequences for territorial sustainability: the industry generates high multiplier effects yet retains relatively limited value added (USD 281.1M on USD 1,472.3M gross output), constrained by dependence on extra-regional and imported inputs. In a market environment trending towards premiumisation and greater consumer selectivity rather than volume growth, this paradox becomes especially relevant: sustaining the territorial economic value of the beer industry requires deepening local linkages - including import substitution of malt and hops, greater integration with local gastronomy and tourism, and the valorisation of by-products such as spent grain in agri-food chains - rather than relying on aggregate consumption expansion. The paper also examines the historical asymmetry in public innovation support: wine has received USD 69.5M compared to USD 6.0M allocated to beer through CORFO, raising questions about the equity of sectoral development policies within the framework of sustainable regional development goals.

Keywords | Input-output analysis; beer industry; gastronomy; territorial sustainability; value chains; low-density territories; regional development; Chile.

FATORES DETERMINANTES DA OPINIÃO DO AUDITOR: ANÁLISE DOS MUNICÍPIOS DO MINHO E DA ÁREA METROPOLITANA DO PORTO

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Resumo

Objetivo | Os municípios portugueses são obrigados, desde 2013, à revisão legal das suas contas, da qual resulta a Certificação Legal das Contas (CLC). No âmbito desta temática, este estudo visa aferir o tipo de opinião emitida pelos auditores nas Certificações Legais das Contas (CLC) dos municípios do Minho e da Área Metropolitana do Porto (AMP), bem como os fatores (individuais e institucionais) que determinam variações na opinião emitida.

Metodologia | Com base na análise de conteúdo às CLC dos municípios do Minho e da AMP procedeu-se à elaboração de uma base de dados em Excel, referentes ao período de 2018 a 2020, resultando numa amostra com 114 observações. Posteriormente, procedeu-se a uma análise descritiva dos dados, que caracteriza o tipo de opinião emitida em função das características dos municípios, e a uma análise do modelo de regressão logística desenvolvido para testar os fatores que determinam o tipo de opinião.

Resultados Esperados | Os resultados obtidos permitiram concluir que mais de metade das CLC emitidas contemplam opiniões modificadas, principalmente nos municípios com média e grande dimensão. Os resultados permitiram, ainda, concluir que a probabilidade de emissão de opinião modificada é superior nos municípios de maior dimensão e com maior orientação política de esquerda. A deterioração do desempenho financeiro, também, aumenta a probabilidade de uma opinião modificada.

Estes resultados revelam que os políticos e gestores locais devem estar mais atentos aos sinais e alertas emitidos nas CLC, para introduzirem medidas e procedimentos internos que conduzam à melhoria da qualidade e transparência da informação.

Palavras-chave | Auditoria, Certificação Legal das Contas, Municípios, Opinião modificada, estudo empírico.

Agradecimento | Este estudo foi desenvolvido no Centro de Investigação em Contabilidade e Fiscalidade (CICF) e foi financiado pela Fundação para a Ciência e a Tecnologia (FCT) através de fundos nacionais com a referência UID/04043/2025 e doi <https://doi.org/10.54499/UID/04043/2025>.

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AUDITORIA E DIVULGAÇÃO DE INFORMAÇÃO FINANCEIRA ONLINE:
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Klemos@ipca.pt**Resumo**

Objetivo | O presente estudo tem como objetivo analisar a divulgação de informação financeira online dos municípios portugueses, procurando aferir a influência do auditor e do tipo de opinião, emitida na Certificação Legal das Contas (CLC), sobre o referido nível de divulgação.

Metodologia | A metodologia adotada estruturou-se em duas etapas fundamentais: a recolha de dados e o respetivo tratamento estatístico. O levantamento de dados abrangeu a informação financeira divulgada pelos 308 municípios portugueses relativa a 2023, bem como a caracterização das entidades responsáveis pelas auditorias externas e emissão da Certificação Legal de Contas (CLC), através de uma análise de conteúdo aos seus *websites*. Com base nestes dados, procedeu-se à construção do índice de divulgação de informação financeira online. Posteriormente, efetuou-se a análise descritiva dos dados, que foi complementada pela análise estatística de dois modelos de regressão linear, calculados no *Statistical Package for the Social Sciences* (SPSS).

Resultados Esperados | Em 2023, os municípios portugueses apresentaram uma média de divulgação de informação financeira online de 57,5%, evidenciando, no entanto, uma elevada disparidade entre eles (0% a 97%). No primeiro modelo de regressão linear, verificou-se que a emissão de opinião sem reservas na CLC e o género do auditor não apresentam significância estatística, não se confirmando a sua influência sobre o nível de divulgação de informação financeira online. Em contrapartida, a atuação de Sociedades de Revisores Oficiais de Contas (ROC) especializadas em auditorias a municípios apresenta um efeito negativo e estatisticamente significativo. Adicionalmente, o tipo de auditor revela um efeito positivo, indicando que municípios auditados por Sociedades de ROC, face a ROC individuais, apresentam níveis mais elevados de divulgação de informação financeira online. O segundo modelo, que incorpora a variável distrito, apresenta maior poder explicativo. Os resultados evidenciam efeitos negativos e estatisticamente significativos de alguns distritos sobre a divulgação de informação financeira online. Contudo, a inclusão desta variável elimina a significância do efeito associado às Sociedades de ROC especializadas em auditoria aos municípios.

Palavras-chave | Auditoria, Divulgação de informação financeira; Internet; Municípios.

Agradecimento | Este estudo foi desenvolvido no Centro de Investigação em Contabilidade e Fiscalidade (CICF) e foi financiado pela Fundação para a Ciência e a Tecnologia (FCT) através de fundos nacionais com a referência UID/04043/2025 e doi <https://doi.org/10.54499/UID/04043/2025>.

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REIMAGINING RURAL FUTURES: TORRÃO LAB IN PRACTICE

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Purpose | Building on the framework presented by Foundation DaST at the 2025 APDR Congress, its Torrão LAB project continues to evolve as a territorial living laboratory, deepening its approach to rural regeneration through practice-based implementation. Located in the village of Torrão (Alentejo, Portugal), the initiative addresses structural challenges common to low-density territories, including demographic decline, ecological degradation, and the erosion of cultural identity. While the initial framework emphasised the integration of conservation and regeneration as contributing strategies in our holistic approach to the challenge, and while our ongoing research projects in key areas complement these endeavours, the current phase introduces their operationalisation through place-based practices.

This paper aims to examine how Torrão LAB is transitioning from concept to practice, contributing to debates on territorial cohesion by proposing a replicable model grounded in ecological restoration, cultural heritage activation, within a context of community participation. It positions rural territories not as peripheral spaces in decline, but as active sites for sustainability transitions aligned with post-growth and regenerative development paradigms.

Methodology/Approach | The research adopts a qualitative, practice-based case study approach, analysing Torrão LAB as a living lab in formation. Building on the multidisciplinary and participatory methodology outlined in 2025, the current phase incorporates a set of interconnected initiatives developed by Foundation DaST. These include eco-artistic programmes such as Como Amar um Rio, heritage activation processes linked to Convento da Terra, and participation in European cooperation frameworks, including Erasmus+ projects focused on regenerative skills and knowledge transfer.

The methodology combines document analysis, project-based observation, and participatory processes involving local communities, artists, researchers, and institutional partners. It integrates ecological restoration, conservation of tangible and intangible heritage, circular and regenerative economy principles, and cultural practices within a co-design framework. Particular emphasis is placed on the integration of carbon metrics and biodiversity indicators as tools for monitoring impact and gauging the success of adaptive territorial strategies.

The project maintains its phased structure, with an initial research and co-design phase (2025–2028), followed by a long-term implementation phase (2028–2035), ensuring continuity between conceptual development and practical application.

Expected Results | The paper demonstrates the progression of Torrão LAB from a conceptual model to an operational living laboratory, evidencing how conservation and regeneration can be integrated into a coherent territorial strategy. It highlights the capacity of combining ecological restoration, heritage reactivation, and cultural production to generate environmental, social, and economic value.

Preliminary outcomes indicate the strengthening of community engagement, the activation of cultural and natural assets, and the establishment of a framework for measuring impact through carbon and biodiversity metrics. The research contributes to the development of a transferable model for rural regeneration, offering insights for policy design and application in low-density territories.

By aligning local initiatives with broader European agendas, including the Green Deal and the New European Bauhaus, the paper reinforces the role of rural territories as laboratories for innovation, resilience, and sustainability transitions.

Keywords | Rural regeneration, territorial cohesion, living labs, cultural heritage, regenerative development.

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DESENVOLVIMENTO E COESÃO EM PORTUGAL: O IMPACTO DA PRODUTIVIDADE E DO EMPREGO NAS CONVERGÊNCIAS REGIONAIS**Pedro Marques**

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Resumo

Num contexto em que Portugal e todas as suas regiões NUTS II, atravessam um processo de convergência com a média da União Europeia em termos de evolução do Produto Interno Bruto *per capita* (PIBpc), impõe-se identificar os fatores que potenciam esta evolução, nomeadamente o papel da produtividade e do emprego.

A presente comunicação enquadra-se no “II Relatório do Desenvolvimento & Coesão”, produzido pela AD&C – Agência para o Desenvolvimento e Coesão, I.P., assumindo como objetivo apresentar os resultados da análise realizada à decomposição da evolução do PIBpc, explorando o impacto de fatores como a variação da produtividade e da taxa de emprego ou a evolução da estrutura económica nacional e regional. Recorrendo a dados atualizados do INE e do Eurostat, procede-se a uma análise de diferentes indicadores, entre 2016 e 2024, identificando e decompondo os principais resultados observados.

Neste âmbito, procuramos contribuir para o debate entre os processos de convergência e de criação de riqueza e a evolução da produtividade nacional e da sua estrutura/especialização produtiva, num período de maior incerteza e de crescente debate em torno do papel da Política de Coesão na promoção da competitividade regional, nacional e europeia.

Os resultados indicam que a economia portuguesa assenta os seus relevantes processos recentes de convergência em elevadas taxas de emprego, ainda que esta seja acompanhada de um processo de aumento da produtividade nacional e regional, decorrente de alterações significativas na sua estrutura produtiva – aproximando a distribuição setorial do emprego nacional e regional daquela registada pela média da UE27.

Procurando contribuir para a compreensão das dinâmicas de convergência e coesão das regiões portuguesas na última década, esta análise destaca ainda as implicações da recuperação económica no pós-Covid 19 e o seu impacto no crescimento económico nacional e regional.

Palavras-chave | Convergência económica, PIB per capita, produtividade, política de coesão, emprego, estrutura produtiva.

ANÁLISE DE CONFIGURAÇÕES SOCIOTÉCNICAS EM EXPERIÊNCIAS AGROALIMENTARES DE BASE COMUNITÁRIA NA AMAZÔNIA PARAENSE (BRASIL)

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Resumo

Objetivo | Este trabalho tem como objetivo analisar as configurações sociotécnicas associadas a experiências amazônicas de base comunitária no município paraense de Belém (Brasil), considerando dois contextos territoriais distintos: a região insular, representada pela Associação de Mulheres Extrativistas do Combu (AME), e o espaço urbano, por meio da Iacitata Amazônia Viva e do Grupo de Consumo Responsável (GRUCA). A pesquisa busca compreender como se estruturam as relações entre produção extrativista, redes de comercialização agroecológica e consumo solidário (Levidow, Sansolo e Schiavinatto, 2023), investigando em que medida essas interações configuram nichos de inovação capazes de impulsionar transições para sistemas agroalimentares mais sustentáveis e inclusivos. Nesse sentido, enfatiza-se a articulação entre diferentes escalas e territorialidades como elemento central na conformação dessas dinâmicas sociotécnicas.

Metodologia/Abordagem | A pesquisa adota uma abordagem quali-quantitativa, fundamentada na Análise de Configurações Sociotécnicas (ACST), baseado em Miörner, Binz e Fuenfschilling (2021) e Heiberg, Truffer e Binz (2022), no âmbito da geografia das transições (Hansen e Coenen, 2014; Truffer, Murphy e Raven, 2015). O estudo será desenvolvido em dois momentos complementares. O primeiro consiste no levantamento e análise documental (artigos, relatórios, conteúdos digitais, dentre outros) sobre as experiências investigadas, com delimitação temporal de até dois anos. O segundo envolve trabalho de campo, com a realização de entrevistas semiestruturadas com atores-chave nos dois contextos territoriais (insular e urbano). A partir dos dados coletados, serão construídas matrizes de relações ator-ator, ator-conceito e conceito-conceito, organizadas em bancos de dados. Essas matrizes subsidiarão a construção de redes sociotécnicas, analisadas com o uso do *software Visone*, possibilitando a aplicação de métricas como densidade, centralidade e intermediação, a fim de identificar os alinhamentos, mediações e hierarquias presentes nas configurações sociotécnicas.

Resultados esperados | Espera-se evidenciar a constituição de uma configuração sociotécnica que articula diferentes territorialidades através da integração entre produção extrativista, circuitos curtos de comercialização e redes de consumo responsável. A pesquisa deverá identificar o grau de conectividade e densidade dessas redes, bem como a centralidade de atores e conceitos na organização sociotécnica analisada. Como contribuição, pretende-se demonstrar o papel das relações de cooperação, das práticas territoriais e da organização comunitária na consolidação de nichos de inovação, além de apontar limites e potencialidades dessas experiências no processo de transição para sistemas agroalimentares sustentáveis. Destaca-se, ainda, a relevância da articulação multiescalar dessas iniciativas, evidenciando como diferentes espaços e práticas sociais se conectam na construção de alternativas ao regime agroalimentar dominante, especialmente frente aos desafios de institucionalização e de apoio às políticas públicas (Tartaruga et al., 2025; Costa, 2025).

Palavras-chave | Território paraense, política pública, AME, Itacitata, Gruca.

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DEVELOPMENT AND PREDICTION OF RURAL TOURISM INDICATORS IN SLOVAKIA

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Purpose | This paper aims to evaluate the development of capacity and performance indicators of rural tourism and agritourism in Slovakia between 2017 and 2024, and through short-term forecasting to estimate their trajectory in 2025–2026. The paper further compares the growth dynamics of studied indicators in rural tourism zones against national-level statistics, thereby assessing the competitiveness of rural tourism within the broader Slovak tourism sector.

Methodology/Approach | The analysis draws on official data from the Statistical Office of the Slovak Republic (SOSR) covering the period 2017–2024. Four indicators are examined: number of visitors, number of overnight stays, number of accommodation establishments, and number of beds. Short-term predictions for 2025 and 2026 were generated using the Forecast function in Microsoft Excel, applied to a three-year base period (2022–2024). The years 2020 and 2021 were deliberately excluded owing to the severe distortions caused by the COVID-19 pandemic. The predicted values for rural tourism zones were subsequently compared with equivalent national indicators to quantify relative growth differentials.

Expected Results | The results demonstrate that rural tourism zones exhibit consistently more dynamic growth across all four monitored indicators relative to the national totals. In terms of visitor numbers, rural tourism zones are projected to record a 22.5% increase by 2026 compared with the 2019 baseline, outpacing the national figure by nearly 11 percentage points. The projected growth differential in overnight stays is even more pronounced, exceeding 23 percentage points in favour of rural tourism zones. These findings confirm the growing competitiveness and strategic potential of rural tourism as a pillar of the Slovak tourism sector.

Keywords | Rural tourism, forecasting, Slovakia, performance indicators.

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ONE-STOP SHOPS AS COLLABORATIVE INFRASTRUCTURES FOR SUSTAINABILITY TRANSITIONS: INSIGHTS FROM THE GUARDIANS PROJECT

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Abstract

Purpose | There is a growing need to advance sustainability transitions in food systems through coordinated action across the entire farm-to-fork chain. In line with the United Nations (2015), such transitions require the engagement of all actors in reshaping production, distribution, and consumption patterns. The European Commission's recent "Vision for Agriculture and Food" (EC, 2025) reflects this shift by seeking to make the agri-food sector more attractive for future generations while responding to the sector's multiple and interconnected challenges, particularly in rural areas. Within this transition, digital innovation emerges as a key enabler, supporting small and medium-sized farms in maintaining productive, resilient, and more sustainable food production systems. (Maffezzoli, F., et.al. 2022.) GUARDIANS (2023) aim to support sustainability transitions in food systems by strengthening the capacity of small- and medium-sized rural farm owners also by reducing the growing technological gap that widens the disparity between smaller and larger farms. It does so through a portfolio of practical, human-centred digital solutions designed to be affordable, scalable, and effective, coupled with several engagement, training and capacity building activities that empower farmers to navigate the current market landscape. This paper explores the potential of a One-Stop Shop (OSS) approach as a collaborative infrastructure for sustainability transitions in agriculture. Building on the GUARDIANS project, the study investigates how OSS models can act as enabling platforms for inclusive digital transition in rural areas.

Methodology/Approach | The paper adopts a qualitative, project-based case study approach grounded in the implementation of the GUARDIANS project. The project advances the OSS concept by positioning agricultural cooperatives as local innovation hubs that mediate between farmers, technology providers, researchers, and policy actors (OECD, 2025). Empirical inputs include surveys conducted across 6 cooperatives to assess farmers' needs, existing service provision, and readiness to adopt digital technologies and regenerative agricultural practices. These insights were complemented by multi-actor co-creation processes, including 18 local workshops, 3 Social Innovation sessions, and continuous stakeholder engagement activities. Workshops with project partners further contributed to refining the OSS model and its operational design. The approach draws on socio-technical systems thinking and participatory methods to

examine how knowledge circulates, how trust and usability shape technology adoption, and how collaborative dynamics support the integration of digital tools and regenerative practices (Metcalf, 2024). Pilot sites, testbeds, and agile development processes support iterative validation across diverse territorial contexts.

Expected Results | The study shows that cooperative-led One-Stop Shops can operate as hybrid collaborative laboratories, going beyond experimental settings into practical, scalable infrastructures that support sustainability transitions. By centralizing and facilitating access to digital tools, knowledge, and support services, OSS models are expected to reduce barriers, enhance coordination, and strengthen the resilience and competitiveness of small- and medium-sized farms. The findings also highlight the role of OSS in facilitating the uptake of regenerative practices, such as no-tillage, cover crops, crop rotation, and integrated grazing, within broader socio-technical systems. In doing so, GUARDIANS aligns with key European policy priorities, including the European Green Deal and its Farm-to-Fork initiative, promoting sustainability, digitalisation, and inclusiveness of food systems across EU. Overall, the paper contributes to the ongoing debate on collaborative laboratories by demonstrating how OSS approaches can support more inclusive and adaptive sustainability transitions in agriculture.

Keywords | Sustainability transition, Digitalisation, Social Innovation, farming cooperatives, One-Stop-Shop.

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DIZ-ME COMO VOTAS, DIR-TE-EI QUANTO ESTUDASTE: NÍVEIS DE ESCOLARIDADE E POPULISMO POLÍTICO EM PORTUGAL**Conceição Rego**

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Quando Rodríguez-Pose no artigo "*The revenge of the places that don't matter (and what to do about it)*" (Rodríguez-Pose, 2018) evidenciava a relação entre a fragilidade da qualidade de vida, o declínio económico e a expressão eleitoral da direita populista, em Portugal ainda não haviam sido constituídos e autorizados partidos de direita radical populista. De 2019, até hoje, este fenómeno eleitoral aumentou de forma muito expressiva e o partido político que corporiza esta expressão ideológica é o que tem a segunda maior representação parlamentar em Portugal, na sequência do ato eleitoral de maio de 2025. Esta tendência verificada em Portugal acompanha o que sucede em diversos países do Ocidente. A literatura acerca do crescimento do voto populista tem ilustrado as razões para tal. Questões como a falta de habitação, a dificuldade de acesso à saúde, os baixos salários, a falta de expectativa de melhoria da qualidade de vida, mas também o aumento da presença de imigrantes ou de residentes de minorias étnicas, como por exemplo a cigana. Os partidos da direita nacionalista, capturam o descontentamento com “o futuro incerto, o envelhecimento e despovoamento de extensas regiões e a ausência do estado” (Almeida & Rodríguez-Pose, 2025), obtendo a preferência dos “eleitores brancos mais idosos, de classe trabalhadora, com baixos rendimentos e poucas qualificações, que, por isso, têm mais dificuldade em prosperar na atual economia europeia” (Madeira et al., 2021, p. 470). Um olhar para o mapa português mostra que nem todas as regiões, com características económicas e sociais semelhantes, registam o mesmo comportamento eleitoral. Compreender algumas das razões das diferenças de comportamento dos eleitores, nas diversas regiões, é o objetivo deste estudo. Em particular, avaliar se diferenças na qualificação da população residente, medidas por distintos níveis de escolaridade, se traduzem em opções eleitorais distintas, em particular no que respeita à votação no partido de direita radical populista. Procura-se avaliar se os residentes em territórios com níveis de educação formal mais elevados votam de forma menos expressiva no Partido Chega. Os dados utilizados neste estudo são os resultados eleitorais das mais recentes eleições legislativas, em Portugal, por municípios. O tratamento da informação será de natureza estatística e econométrica, a partir de variáveis explicativas relativas à qualificação da população, qualificação do emprego e estrutura do emprego e poder de compra. A expectativa remete-nos para a validação dos mais recentes estudos empíricos que revelam uma relação negativa entre os níveis de educação e as características das escolhas eleitorais.

Palavras-chave | Direita radical populista, comportamento eleitoral, níveis de escolaridade, Portugal, geografia do descontentamento, desigualdades territoriais.

WAGES AND WITHIN-OCCUPATION SKILL COMPLEMENTARITY

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Purpose | Automation alongside rapid technical progress in AI, is driving a significant structural transformation of the labor market. This entails Material and asymmetric implications across occupations and regions for employment and wages, contributing to increased wage inequality (Haltiwanger et al., 2024). However, the role of the relationship between skills, particularly within-occupation skill complementarity, is often neglected when analysing this topic, with the existing literature more focused on capital-skill complementarity (Acemoglu and Restrepo, 2022) or on binary classifications such as socio-cognitive skills (Alabdulkareem et al., 2018). In this paper we posit the existence of a wage premium resulting from within-occupation skill complementarity: which we measure as the average complementarity between each skill used effectively by an occupation and the seven skills with the highest complementarity which are also used effectively in the same occupation. Automation can lead to an erosion of this premium for some workers as skills become redundant. Furthermore, workers face increased difficulty with occupational mobility as occupations tend to cluster together with similar automation probabilities (del Rio-Chanona et al., 2021), leading to a large number of skills remain unused in the new occupation, which can lead to permanently lower earnings in case of occupational changes (Neffke et al., 2024).

Methodology/Approach | We adapt a task-based approach (Autor, 2013), and apply Economic complexity (Hidalgo, 2021) methods to analyse a dataset of Portuguese workers covering a period of eight years between 2010-2018, the Personnel Records database (Quadros de Pessoal). We use the ESCO occupation-skill matrix classification at a 4 digit level to build an occupation(skill) space, that expresses the relatedness between different occupations(skills). We use this to estimate an occupation-space-augmented Mincerian wage equation with two-way worker and firm fixed effects following Abowd et al. (1999).

Expected Results | Our findings show that higher within-occupation skill complementarity yields a statistically significant wage premium, suggesting benefits to specialization in a more related set of skills. This result is robust to different model specifications and controls for the unobserved heterogeneity of both the worker and the firm. Furthermore, this benefit is not correlated to other network-based variables such as the use of more socio-cognitive skills use or complementarity to regional labor markets. Our results support the idea that in the event of a negative shock that alters skill requirements, workers suffer a double loss: they lose both their wage premium and face significant barriers to transitioning into less related activities.

Keywords | Within-Occupation Skill Complementarity, Economic Complexity, Mincerian Wage Equation, Occupation Space, Skill Networks.

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BACK TO THE COMMONS: HOW PORTUGUESE MOUNTAIN VILLAGES ARE REINVENTING SUSTAINABLE AND RESILIENT COMMUNITIES

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Abstract

Purpose | Portuguese mountain villages have been facing a steady population loss since mid-1950s, mainly due to emigration and rural-urban migrations. Expanding employment opportunities in industrializing and urbanizing economies in Portugal and other European countries played an important role. But it is also important to relate these trends with the huge afforestation program carried out by Salazar's dictatorial regime from the 1930s to the 1960s (Freire, 2004). The second half of the XX century witnessed the dismantling of traditional agropastoral systems, which were deeply anchored in the communitarian use and management of common lands (baldios), mainly for grazing, but also as source of multiple nature-based resources (Baptista, 2014). In 1976, fifty years ago, the commons land were restituted to the local communities. Since then, communities have progressively recovered some of previous uses and management practices, although struggling with vulnerable socioeconomic conditions, a different landscape and new environmental risks such as rural fires and invasive plants (Hespanha, 2019; Nogueira et al. 2023; Skulska et al., 2023). However, some mountain villages are experiencing promising changes, involving younger generations as well as innovative practices around common lands (Hespanha, 2019; Nieto-Romero, 2023). These changes appear to resemble other collective movements that are reclaiming the "commons" and local collective action, both in rural and urban contexts, and around the world, as responses to the social and ecological crises of the 21st century (Bollier, & Helfrich, 2019). The purpose of this article is to describe and analyze these recent transformations and to reflect on their potential to revitalize mountain villages by increasing local communities' attractiveness, sustainability, and resilience.

Methodology/Approach | We will focus on case study methodology, comprising the study of four villages in the Peneda-Gerês National Park. Data was collected using qualitative and quantitative techniques: participative observation, surveys, and interviews, carried out during the timeframe of a research-action project (Projeto Bem Comum).

Expected Results | The results include an exploratory characterization of the most innovative actors, their goals, strategies and practices. Particular attention was paid to community-building and common-land management practices, to the interactions between long-time residents and newcomers, traditions and innovations and nature and culture. By comparing these case studies with recent findings around other innovative trends around commons, we intend to gain insights into emergent social innovations that, with adequate policies and support, may represent a positive and substantial transformation in mountain villages.

Keywords | Commons, community-based development, mountain villages, social innovation.

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INCLUSION, UNCERTAINTY, AND GEOGRAPHY IN SUSTAINABILITY TRANSITIONS: AGRI-FOOD AND FAMILY FARMING IN QUESTION

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Abstract

Purpose | The sociotechnical transition framework has been employed to understand environmental and development issues by analysing relationships and conflicts between niches, regimes, and landscapes in transitions concerning eco-innovations and sectoral changes. We explored the transition approach in a geographical perspective known as the geography of sustainability transitions (GEOST). In this regard, Binz et al. (2025) highlight the need for better attention to social justice in these transitions. In the context of growing uncertainties and multiple, intersecting hazards that jeopardise especially the more vulnerable people in marginal regions (Scoones, 2024). This study aims to theoretically discuss the role of the inclusion of economically vulnerable social groups in sociotechnical transition trajectories and to empirically illustrate this role in the agri-food sector. Furthermore, it seeks to understand how the notion of uncertainty is perceived in this debate over socioeconomic development.

Methodology/Approach | Methodologically, we follow research findings about GEOST in the Brazilian agri-food system with family farmers' participation (Tartaruga et al., 2025). We studied two regions in the Northeast of Brazil and applied a version of the Sociotechnical Configuration Analysis to analyse the alignments among actors, technologies, and institutions. The research was carried out in the following order: semi-structured interviews with key actors in the territories (primary data), discourse analysis, and social network analysis to determine the congruence of concepts within the sociotechnical configurations.

Expected Results | This research set out to conclude implications for better socioeconomic development and policies. One was the social and technical innovative capacity of the studied social groups to overcome or adapt to contexts of high uncertainty. In effect, these marginal groups are acquainted with uncertain settings and, arguably, stakeholders and policymakers can learn from them (Scoones, 2024). In conclusion, it is necessary to create and manage public policies that not only ensure the adequate and respectful consideration of vulnerable people and places, but also build new place-based policies that are truly focused on developing and adopting information and knowledge from below.

Keywords | Inclusive innovation, geography of sustainability transitions, uncertainty, agri-food systems, family farming.

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MOPLAND: APLICAÇÃO WEBSIG DE APOIO À COCONSTRUÇÃO DE CENÁRIOS DE USO E OCUPAÇÃO DO SOLO

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Resumo

Objetivos | O projeto nacional MOPLAND trabalhou na lógica de democratização da temática de transformação do uso e ocupação do solo e de promoção da governação participada em territórios costeiros à escala municipal (European Commission, 2020; MOPLAND). A investigação foca-se no reforço da interligação entre a ciência e a construção de políticas públicas, assente na Modelação Espacial Participativa (MEP) como ferramenta central para o desenvolvimento de estratégias de Ordenamento do Território, mais representativas e transparentes.

Metodologia | Metodologicamente, foi estabelecida uma abordagem de modelação espacial quantitativa de transformação de uso do solo, que integrou workshops participativos *online* com cerca de oitenta participantes e ferramentas geoespaciais avançadas. Destaca-se a utilização de formulários geoespaciais *online* (ArcGIS Survey123) para a recolha de dados em tempo real e o desenvolvimento de uma ferramenta inovadora para a avaliação das atividades pelos participantes, inspirada no modelo *Dartboard*. O modelo convencional de Autómatos Celulares utilizado consistiu numa matriz retangular de células quadradas com sete estados possíveis de uso e ocupação do solo, incluindo o tecido edificado contínuo, o tecido edificado descontínuo, outros territórios artificializados, as áreas naturais e semi-naturais, as áreas agrícolas e os corpos de água. A probabilidade de ocorrência de cada categoria foi calculada através de Regressão Logística, e a quantidade de transformação entre categorias de uso e ocupação do solo foi simulada através das Cadeias de Markov. A partir dos fatores de pressão do sistema de transformação de uso do solo das áreas costeiras identificados durante a realização dos workshops participativos foi possível explorar trajetórias distintas de uso do solo para 2030. Os agentes públicos e privados foram, também, incluídos nos processos de calibração e validação do modelo. Os resultados da modelação apresentaram valores significativos de precisão.

Resultados Esperados | Os principais resultados da investigação foram disponibilizados numa aplicação WebSIG (disponível em mopland.fcs.unl.pt), que designamos por MOPLAND, desenvolvida através da ferramenta ArcGIS *experience builder*. A aplicação integra a narrativa geográfica do projeto, ferramentas de análise, como o *swipe* que permite comparar cenários de diferentes anos, e a análise detalhada dos cenários. O projeto conclui que a antecipação de uso e ocupação do solo à luz dos grandes desafios atuais através de

abordagens de MEP é crucial para a cocriação de estratégias de planeamento de uso do solo mais robustas, assim como para a promoção da literacia territorial.

Palavras-chave | MOPLAND, Visualizador de cenários de uso e ocupação do solo, Áreas Costeiras.

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A ANTECIPAÇÃO DAS TRANSFORMAÇÕES DE USO E OCUPAÇÃO DO SOLO: UMA ABORDAGEM DE MODELAÇÃO ESPACIAL PARTICIPATIVA APLICADA A ÁREAS COSTEIRAS PORTUGUESAS

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Resumo

Objetivos | Estudos recentes destacam a relevância de implementação de medidas e abordagens de apoio à tomada de decisão mais representativas e transparentes no que respeita ao Planeamento e Ordenamento do Território, com particular enfoque na componente espacial (Domingo et al., 2023; Faria de Deus et al., 2023). No entanto, no contexto português, as práticas de participação pública revelam-se frequentemente insuficientes, restringindo-se a processos consultivos, que contribuem de forma limitada para uma colaboração efetiva no desenho de soluções futuras de planeamento de uso do solo. Esta fragilidade é acentuada pela resistência do poder executivo à participação no processo de decisão, pela dificuldade em assegurar o seu envolvimento continuado, e pela predominância de uma participação técnica em detrimento do envolvimento cívico mais alargado (Neves, 2020; Faria de Deus, 2025).

Metodologia | Este trabalho apresenta os resultados da aplicação de uma abordagem de Modelação Espacial Participativa (MEP) a dois municípios portugueses, Portimão e Almada. Estas áreas costeiras caracterizam-se por dinâmicas intensas e aceleradas de transformação de uso e ocupação do solo. A abordagem metodológica consistiu (1) na modelação espacial quantitativa de transformação de uso e ocupação do solo entre 2007 e 2018, baseada em Autómatos Celulares, e (2) na incorporação de processos de decisão colaborativa através de *workshops* participativos. Foram coconstruídos três cenários prospetivos de uso e ocupação do solo para 2030, a saber o *Business as Usual*; o Planeamento de uso do solo Sustentável; e o Mercado Imobiliário e Turismo Desregulados.

Resultados Esperados | Os resultados da investigação mostram que a aplicação de abordagens MEP enfrenta desafios estruturais, nomeadamente a gestão de conflitos de interesse ligados aos setores da construção e do turismo, os quais exercem forte pressão na transformação de uso e ocupação do solo. Os resultados da simulação indicam que, na ausência de um planeamento de uso do solo sustentável, a artificialização do solo continuará a realizar-se, especialmente através de categorias de uso do solo urbano de baixa densidade junto à linha de costa. Os resultados também revelam que a integração de ferramentas WebSIG e modelos espaciais quantitativos no processo de planeamento de uso do solo permite aprofundar o debate técnico e político sobre a antecipação de transformações territoriais. No entanto, para que estas ferramentas sejam efetivamente

implementadas, é necessário superar a cultura enraizada de participação maioritariamente consultiva, no sentido de promover uma convergência real entre a investigação científica sobre o uso do solo, o planeamento e o envolvimento social ativo (Faria de Deus, 2025).

Palavras-chave | Coconstrução de Cenários, Participação Pública, Planeamento e Ordenamento do Território, Sustentabilidade.

Agradecimentos | Este trabalho foi financiado por fundos nacionais através da FCT—Fundação para a Ciência e a Tecnologia, I.P., no âmbito (1) do projeto «UIDB/04647/2020» do CICS.NOVA—Centro Interdisciplinar de Ciências Sociais da Universidade Nova de Lisboa, (2) do projeto «MOPLAND: A Co-construction Conceptual Model for Participatory Land-Use Modelling in Spatial Planning» (Referência: 2023.00110.RESTART), e (3) da Norma Transitória—DL57/2016/CP1453/CT0105 (DOI:10.54499/DL57/2016/CP1453/CT0105).

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ANÁLISE DE ABORDAGENS DE MODELAÇÃO ESPACIAL PARTICIPATIVA EM ORDENAMENTO DO TERRITÓRIO: UMA REVISÃO SISTEMÁTICA DE LITERATURA BASEADA NA METODOLOGIA PRISMA**Raquel de Deus**

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Resumo

Objetivos | A Modelação Espacial Participativa (MEP) é, atualmente, uma prática fundamental para a gestão e para o planeamento de uso do solo sustentável (Zellner, 2024). Esta abordagem integra múltiplos agentes públicos e privados, e o conhecimento local, promovendo um processo de aprendizagem social, que culmina na construção de modelos coletivos, os quais visam dar resposta a fenómenos espaciais complexos (Eitzel et al., 2020; Vukomanovic et al., 2019).

Metodologia | O presente trabalho apresenta uma revisão sistemática da literatura, baseada na metodologia PRISMA (Anthony, 2024; Vigna et al., 2021). Foram analisadas e validadas 66 publicações científicas internacionais, com revisão por pares, publicadas entre 2014 e 2024, recorrendo às bases de dados Scopus e WoS. O objetivo central consistiu em avaliar o estado da arte e os avanços na investigação sobre as abordagens de MEP, com especial enfoque (1) na componente metodológica; (2) nos níveis de envolvimento dos agentes públicos e privados; (3) no impacto direto na tomada de decisão e na governança territorial; (4) e nas tendências recentes nesta área.

Resultados Esperados | Os resultados revelam um crescimento significativo na produção científica sobre esta temática, em particular, nos anos mais recentes do período em análise, evidenciando a sua relevância para a definição de políticas públicas e para a sustentabilidade territorial, nomeadamente através da cocriação de cenários de uso e ocupação do solo. Esta análise mostra que as abordagens de MEP fortalecem o envolvimento das comunidades, promovendo políticas espaciais mais inclusivas e eficazes.

No entanto, a aplicação da MEP enfrenta ainda barreiras muito significativas. Ao nível metodológico, existem limitações muito específicas relacionadas com os modelos espaciais e a disponibilidade e qualidade da informação geográfica. Destaca-se também a complexidade técnica da incorporação de expectativas e intenções dos diversos agentes públicos e privados nos modelos de simulação. O estudo revela divergências entre os efeitos esperados da aplicação destas abordagens e a sua efetiva implementação no contexto de planeamento de uso do solo, prevendo-se que estas metodologias venham a impactar positivamente a implementação de estratégias de planeamento e gestão do território, nomeadamente através da promoção de governança.

O estudo propõe, também, uma agenda de investigação futura, a qual aborda os constrangimentos existentes mais significativos e que condicionam a implementação destas abordagens nos processos de planeamento e Ordenamento do Território.

Palavras-chave | Metodologia PRISMA, Metodologias espaciais quantitativas, Políticas Públicas, Sustentabilidade Territorial, Governança.

Agradecimentos | Este trabalho foi financiado por fundos nacionais através da FCT—Fundação para a Ciência e a Tecnologia, I.P., no âmbito (1) do projeto «UIDB/04647/2020» do CICS.NOVA—Centro Interdisciplinar de Ciências Sociais da Universidade Nova de Lisboa, (2) do projeto «MOPLAND: A Co-construction Conceptual Model for Participatory Land-Use Modelling in Spatial Planning» (Referência: 2023.00110.RESTART), e (3) da Norma Transitória—DL57/2016/CP1453/CT0105 (DOI:10.54499/DL57/2016/CP1453/CT0105).

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BREAKING DOWN ENTREPRENEURIAL ECOSYSTEMS: PANEL EVIDENCE ON CAUSATION MECHANISMS DRIVING INNOVATIVE STARTUPS IN ITALY**Andrea Caragliu**

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Abstract

Purpose | Firm formation exhibits significant spatial and temporal variation. Over the past two decades, Entrepreneurial Ecosystems have been used as a conceptual framework to interpret the microfoundations of the mechanisms driving firm formation. (Wurth, Stam, & Spigel, 2022) identified four main classes of causation mechanisms: intra-layer mechanism; inter-ecosystem mechanism; upward mechanism; downward mechanism.

Methodology | This paper provides the first empirical evidence on their relative strength using panel data for Italian NUTS3 regions covering the period 2014-2020. We explain the generation of new innovative startups with a measure of intensity of EE, and new analyses for each of the four causation mechanisms.

Expected Results | Results highlight synergies among EE elements (intra-layer), positive maturity effects on startups (upward mechanism), moderate neighboring influences (inter-ecosystem mechanism), and feedback loops (downward mechanism). Beyond validation, our findings extend (Wurth, Stam, & Spigel, 2022)'s framework by identifying an *attraction effect* among proximate startups, contributing to theories of Entrepreneurial Ecosystems as complex systems with emergent dynamics.

Keywords | Entrepreneurial ecosystems, startup, firm formation, NUTS3.

JEL classification codes | R11, M21, L16.

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INSTITUTIONAL CAPACITY AND EMERGING TECHNOLOGIES IN THE DUAL TRANSITION: AN EXPLORATORY REGIONAL GOVERNANCE PERSPECTIVE ON LOW-DENSITY TERRITORIES IN PORTUGAL**Rita Santos**

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Abstract

Purpose | In the context of the dual digital and sustainable transition, increasing attention is being paid to digital infrastructures and policy instruments designed to improve traceability, circularity, and information availability across value chains. This shift is particularly relevant for low-density territories, where demographic change, service pressures, and governance constraints call for place-sensitive responses (Ahlmeyer & Volgmann, 2023; OECD, 2025). This paper examines, in the Portuguese context, the conditions under which emerging technologies may acquire territorial relevance in low-density settings. More specifically, it discusses how institutional capacity and multilevel governance may shape the territorial appropriation of such technologies within the current European policy and regulatory framework. Within this broader debate, blockchain is approached as one relevant example of an emerging digital infrastructure associated in the literature with traceability, trusted data exchange, and coordination among multiple actors, including in rural and public-sector contexts (Kaur & Parashar, 2022; Merrell, 2022). The paper also considers the growing regulatory prominence of the Digital Product Passport under Regulation (EU) 2024/1781, 2024; Regulation (EU) 2024/3110, 2024.

Methodology/Approach | The study adopts a qualitative and exploratory approach. It combines documentary analysis of European and national institutional and regulatory sources with a selective review of the literature on rural regeneration, territorial innovation, multilevel governance, and digital transformation in public and regional contexts (Mahula et al., 2022; OECD, 2025). The discussion is situated in the Portuguese context and framed by the current European agenda for the dual transition. Particular attention is given to the Ecodesign for Sustainable Products Regulation, which establishes the broader framework for digital product-related information, and to the Construction Products Regulation, which provides for a construction digital product passport system aligned with that wider architecture. In this framework, blockchain is not examined as an isolated technological solution, but as an illustrative example of the broader set of emerging digital infrastructures associated with traceability, trusted data exchange, and value-chain coordination. The analysis therefore addresses the institutional and governance conditions that may enable emerging technologies to acquire meaningful territorial relevance in low-density contexts.

Expected Results | The paper is expected to show that the territorial relevance of emerging technologies depends less on technological novelty than on the institutional and governance conditions that support their appropriation. Rather than assuming a direct relationship between technological innovation and territorial development, the discussion highlights the importance of organizational capacity, coordination across scales, and articulation with broader territorial development strategies. It is also expected to show that blockchain should not be understood as a necessary or universal solution, but as one possible component within a wider

ecosystem of digital arrangements associated with the dual transition. In this sense, the paper contributes to bringing the debate on emerging technologies closer to regional science and public policy design, while maintaining analytical prudence and avoiding deterministic claims about territorial effects.

Keywords | Institutional capacity, emerging technologies, dual transition, multilevel governance, low-density territories.

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GESTÃO DE RESÍDUOS E RECURSOS HÍDRICOS EM CONTEXTO TURÍSTICO

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Objetivo | O crescimento sustentado da atividade turística em destinos insulares coloca desafios significativos à gestão eficiente de recursos naturais e serviços urbanos, nomeadamente no tratamento de resíduos sólidos urbanos e na gestão dos recursos hídricos. Este estudo analisa a relação dinâmica entre a procura turística, a produção de resíduos municipais e o consumo de água num destino sujeito a elevada pressão turística.

Metodologia | Com base em séries temporais mensais, aplicam-se metodologias econométricas de raiz, incluindo testes de estacionariedade, modelos VAR e técnicas de cointegração, com o objetivo de identificar relações de equilíbrio de longo prazo entre as variáveis. A análise é complementada com modelos de correção de erro (VECM), permitindo captar os ajustamentos de curto prazo.

Resultados Esperados | Os resultados evidenciam a existência de relações de longo prazo entre a intensidade turística, a geração de resíduos e a utilização de recursos hídricos, sugerindo que o turismo constitui um determinante estrutural da pressão ambiental. Em termos de política pública, os resultados reforçam a necessidade de estratégias integradas de gestão sustentável que considerem os ciclos turísticos e a capacidade de carga dos sistemas urbanos.

Palavras-chave | Economia do turismo, destinos insulares, resíduos sólidos urbanos, recursos hídricos, modelos VAR, sustentabilidade ambiental.

PERSISTÊNCIA E MEMÓRIA NA PROCURA TURÍSTICA: EVIDÊNCIA DE DEPENDÊNCIA TEMPORAL EM VOLUMES DE PROCURA

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Resumo

Objetivo | A dinâmica da procura turística apresenta frequentemente padrões de persistência que refletem a influência de volumes passados sobre a evolução futura. Este estudo investiga a existência de memória temporal na procura turística, explorando a hipótese de que choques na procura têm efeitos duradouros.

Metodologia | Utilizando séries temporais de fluxos turísticos, aplicam-se técnicas de análise de dependência temporal, incluindo modelos ARIMA, testes de raiz unitária e extensões que permitem captar persistência de longo prazo. A abordagem permite distinguir entre processos estacionários com memória curta e processos com memória longa.

Resultados Esperados | Os resultados sugerem que a procura turística apresenta um elevado grau de persistência, sendo fortemente influenciada pelos seus valores passados, o que pode refletir fenómenos como reputação do destino, efeitos de repetição de visitas e dinâmicas de informação. Estes resultados têm implicações relevantes para a previsão da procura e para a definição de políticas de promoção turística, indicando que intervenções pontuais podem ter efeitos prolongados.

Palavras-chave | Procura turística, memória temporal, séries temporais, modelos ARIMA, persistência de longo prazo, previsão turística.

DETERMINANTES DO CRESCIMENTO DA ECONOMIA REGIONAL
MADEIRENSE: UMA ANÁLISE EM SÉRIES TEMPORAIS

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Resumo

Objetivo | A compreensão dos fatores que impulsionam o crescimento económico em regiões insulares é essencial para o desenho de políticas de desenvolvimento sustentado. Este estudo analisa os determinantes do crescimento económico da Região Autónoma da Madeira, com recurso a metodologias de séries temporais.

Metodologia | São consideradas variáveis macroeconómicas relevantes, incluindo investimento, turismo, emprego e indicadores de abertura externa. A análise empírica recorre a modelos VAR/VECM e testes de causalidade de Granger, permitindo identificar relações dinâmicas e interdependências entre as variáveis.

Resultados Esperados | Os resultados apontam para o papel central do turismo como motor do crescimento regional, bem como para a importância do investimento e da integração externa. Adicionalmente, evidenciam-se relações de longo prazo entre as variáveis, sugerindo a existência de equilíbrios estruturais na economia regional. Este trabalho contribui para o debate sobre desenvolvimento regional em economias insulares, oferecendo evidência empírica que pode apoiar a formulação de políticas públicas orientadas para a diversificação económica e a resiliência.

Palavras-chave | Crescimento económico, Região Autónoma da Madeira, economias insulares, turismo, modelos VAR/VECM, desenvolvimento regional.

TRIBUTAÇÃO DA INTELIGÊNCIA ARTIFICIAL, SEGURANÇA SOCIAL E SUSTENTABILIDADE FISCAL: UMA PROPOSTA DE REPOSIÇÃO CONTRIBUTIVA PARA PORTUGAL

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Resumo

Objetivos | Em Portugal, as contribuições sobre os rendimentos do trabalho financiam 65,5% da Segurança Social (Tribunal de Contas, 2024). À medida que os Agentes de Inteligência Artificial (AIA) — sistemas autónomos baseados em aprendizagem automática, capazes de executar tarefas antes desempenhadas por trabalhadores sujeitos a contribuições sociais — se instalam no tecido empresarial a um ritmo que o quadro normativo ainda não acompanha, a base contributiva começa a estreitar-se progressivamente. A Nova School of Business and Economics & Confederação Empresarial de Portugal (2019) estimam que a adoção de 26% do potencial de automação até 2030 equivale à eliminação de 1,1 milhões de postos de trabalho. O impacto não se distribui de forma homogénea: a produção fabril regista uma taxa de substituição de 37% e o comércio de 28%, precisamente os sectores com maior peso no emprego nacional — e concentrados no Norte e no Centro do país. O Regulamento da Inteligência Artificial (UE) 2024/1689 foca-se na gestão de risco e não prevê qualquer mecanismo fiscal. Os sistemas nacionais também não colmatam essa lacuna. O capital algorítmico substitui trabalho tributável sem suportar encargos contributivos equivalentes, e nenhum quadro regulatório em vigor aborda essa assimetria. A questão desta investigação é direta: como garantir a viabilidade do Estado Social nessas condições?

Metodologia | A investigação parte do conceito de *Fiscal Displacement Externality* (FDE) — a externalidade fiscal negativa gerada quando capital algorítmico, sem obrigações contributivas, substitui trabalho humano tributável (Guerreiro et al., 2022). Acemoglu & Restrepo (2022) identificaram o efeito do deslocamento tecnológico sobre o emprego e os salários; esta investigação analisa esse efeito por um ângulo que a literatura tem ignorado: a erosão da base de financiamento do Estado Social. A evidência empírica abrange as empresas não financeiras portuguesas, desagregadas em 21 sectores NACE, entre 2015 e 2023. O efeito causal da adoção de AIA sobre as contribuições para a Segurança Social é estimado por meio de modelos ARDL e VAR, com variáveis instrumentais construídas a partir de fluxos de importação de robótica em economias comparáveis. Os coeficientes obtidos alimentam um modelo de gerações sobrepostas (Diamond, 1965), calibrado para Portugal, que projeta a solvabilidade do sistema de pensões até 2050. Dessa evidência emerge a proposta central: o *EU-FDE Tax*, uma tributação europeia dos AIA ancorada no artigo 115.º do Tratado sobre o Funcionamento da União Europeia (TFUE), concebida para repor a receita contributiva perdida sem onerar o investimento tecnológico.

Resultados Esperados | Esta é, tanto quanto é do nosso conhecimento, a primeira quantificação macrossetorial do impacto da adoção de AIA na base contributiva da Segurança Social em Portugal. Com base nos coeficientes de deslocamento setorial disponíveis na literatura, estima-se que a erosão da receita contributiva, associada ao cenário de adoção moderada, até 2030, situe-se entre 9% e 17% do total anual — equivalente a entre €2.400 milhões e €4.300 milhões —, concentrada nos setores de manufatura e comércio, os de maior peso nas contribuições sociais. A investigação quantifica essa trajetória com rigor macrossetorial e projeta a sustentabilidade financeira do sistema de pensões em quatro cenários até 2050, incluindo um com a introdução do *EU-FDE Tax*, avaliando a capacidade do instrumento de gerar receita equivalente à erosão estimada, sem comprometer os incentivos à inovação. Portugal é um caso de exposição particular. O Conselho das Finanças Públicas (2023) projeta-o como o segundo país da União Europeia (UE) com o rácio de

dependência mais elevado em 2070, numa estrutura de financiamento quase inteiramente baseada em contribuições — e sem qualquer instrumento fiscal, nacional ou europeu, que responda ao problema.

Palavras-chave | Agentes de Inteligência Artificial; Fiscal Displacement Externality; EU-FDE Tax; Segurança Social; Tributação da Automação.

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**O ENVELHECIMENTO NO LOCAL COMO PROCESSO TERRITORIAL:
REPENSAR OS CONTEXTOS URBANOS, RURAIS E PERIURBANOS****Dalila Oliveira**Universidade de Trás-os-Montes e Alto Douro, Escola de Ciências Humanas e Sociais (Portugal)
al80597@alunos.utad.pt**Hermínia Gonçalves**Universidade de Trás os Montes e Alto Douro (Portugal)
hgoncalves@utad.pt**Resumo**

Proposta | O envelhecimento demográfico tem vindo a reconfigurar as dinâmicas territoriais, acentuando desigualdades espaciais e colocando novos desafios ao desenvolvimento regional. A literatura tem-se centrado sobretudo nos contextos urbanos e, em menor escala, nos contextos rurais, permanecendo os espaços periurbanos amplamente subexplorados. Neste contexto, o presente estudo tem como objetivo analisar o *aging in place* enquanto processo territorial, explorando as suas implicações para a coesão territorial e o desenvolvimento regional, e identificando as dimensões que estruturam o envelhecimento no local nos diferentes contextos territoriais.

Metodologia/Abordagem | O estudo baseia-se numa revisão integrativa da literatura, sustentada numa pesquisa nas bases de dados Scopus e Web of Science e num processo de seleção inspirado no modelo PRISMA. Após aplicação de critérios de inclusão e exclusão, foi constituído um corpus final de 42 artigos científicos. A análise foi desenvolvida através de uma abordagem temática, permitindo identificar padrões analíticos e estruturar o fenómeno em dimensões fundamentais.

Resultados Esperados | Os resultados evidenciam que o *aging in place* resulta da interação dinâmica entre três dimensões estruturantes — território, qualidade de vida e governança — sendo fortemente condicionado pelas características dos contextos territoriais. A análise revela a predominância de abordagens centradas na dicotomia urbano-rural e destaca a limitada atenção atribuída aos contextos periurbanos, que apresentam dinâmicas híbridas e desafios específicos ao nível da mobilidade, do acesso a serviços e da coesão social. O estudo propõe um modelo conceptual que integra estas dimensões, contribuindo para uma compreensão mais abrangente do envelhecimento no local e das suas implicações para a coesão territorial.

Palavras-chave | *Aging in place*, desenvolvimento territorial, governança, coesão territorial, contextos territoriais.

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DA FRAGMENTAÇÃO À INTEGRAÇÃO EM POLÍTICAS DE PROMOÇÃO DO SUCESSO EDUCATIVO: ANÁLISE PRELIMINAR DA TRANSIÇÃO DOS PIICIE (PT2020) PARA OS PIPSE (PT2030)

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Resumo

Objetivo | Este trabalho visa analisar a transição dos Planos Integrados e Inovadores de Combate ao Insucesso Escolar – PIICIE (Portugal 2020) – para os Planos Intermunicipais de Promoção do Sucesso Escolar – PIPSE (Portugal 2030) – enquanto política pública cofinanciada no domínio das intervenções territoriais orientadas para a educação, que terá evoluído de acordo com os princípios da Teoria da Mudança. Procura-se compreender de que forma as aprendizagens resultantes dos ciclos anteriores de financiamento, implementação e avaliação foram incorporadas no desenho de novos programas, em particular no que respeita à monitorização e abordagens de avaliação baseadas na teoria.

Metodologia/Abordagem | O estudo segue uma abordagem qualitativa de análise comparativa de políticas, com base em documentação programática e relatórios de avaliação dos PIICIE e PIPSE. Recorre-se a um quadro analítico informado pela teoria, incidindo em dimensões-chave como a definição de públicos-alvo, a lógica de intervenção e a natureza das atividades, os modelos de governação e os sistemas de monitorização e acompanhamento orientados para resultados.

Resultados esperados | Os resultados preliminares sugerem uma evolução de intervenções fragmentadas e baseadas em projetos (PIICIE) – mesmo quando desenvolvidos à escala intermunicipal – para programas mais estruturados, integrados e informados pela teoria (PIPSE). O novo enquadramento incorpora uma definição mais clara de públicos-alvo, uma conceção multinível das intervenções, um maior alinhamento com os fatores socioeducativos e sistemas de monitorização reforçados, com indicadores explícitos à priori e metas de resultado viáveis. Estas mudanças refletem a integração de recomendações provenientes da avaliação, nomeadamente no que se refere à coerência das intervenções, à sua sustentabilidade e à orientação para o impacto, contribuindo para bases mais robustas de monitorização e avaliação futuras.

Não obstante, esta evolução parece antecipar uma tensão analítica interessante: se, por um lado, o desenho dos PIPSE reforça uma lógica de gestão orientada para resultados, por outro, os seus objetivos fundamentais aparentam estar ancorados em preocupações de natureza sobremaneira social e relacional, como o bem-estar, a inclusão e a equidade, colocando desafios à sua operacionalização e avaliação.

Palavras-chave | Promoção do sucesso educativo, Governação intermunicipal, Monitorização e avaliação de políticas públicas, Investimento territorial integrado, PT2020 e PT2030.

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THE REPAIR INDUSTRY AND THE TERRITORIAL CIRCULAR ECONOMY. AN ASSESSMENT OF SOCIO-ECONOMIC EMBEDDEDNESS**Francisco López-Bermúdez**Universidade de Santiago de Compostela (Spain)
francisco.lopez.bermudez@usc.gal**Xavier Vence**Universidade de Santiago de Compostela (Spain)
xavier.vence@usc.gal**Abstract**

Purpose | The purpose of this research is to study the potential contribution of repair practices to local and regional development. Interest in the circular economy (CE) is increasing through policy implementation and also in academia as definitions become more aligned (Kirchherr et al., 2023, 2017). Despite the increasing popularity of the CE, the field of territorial CE remains relatively unexplored (Bourdin & Torre, 2024; Chembessi et al., 2025; Niang et al., 2020). This means that the consequences of the CE to regional development and the impact of economic geography on the implementation of the CE are not fully developed (Veyssi re et al., 2022; Vence, 2023). The paper aims at contributing to the field by studying repair, one key CE activity, from a territorial perspective (Chembessi et al., 2024). This study asks: is repair employment more dispersed territorially than employment in linear activities and how integrated are repair activities with the regional economy? The assumption has been often made that repair takes place mostly in proximity (Stahel, 2013). In fact, most studies implicitly assume proximity to consumers (e.g. Riisgard et al., 2016). However, these assumptions have seldom been tested empirically (L pez-Berm dez & Vence, 2023, 2026; Vence & L pez P rez, 2022; Llorente-Gonz lez & Vence, 2020). Similarly, repair, as an actual economic practice, maintains connections with their economic surroundings. The nature of the embeddedness in the local economy has not been studied before.

Methodology/Approach | In order to answer the research question two quantitative methods are employed covering both of its dimensions. The study is conducted at the local and regional level in the region of Galicia (ES11), which is peripheral region with an average level of development and availability of data at the local level. The first method addresses dispersion of repair employment using concentration indices: the Herfindahl–Hirschman index, the Theil index and Krugman’s relative concentration index (Brulhart and Traeger, 2005; Lazniewska and G recki, 2012). These indices are calculated at the county level, which better reflect labour market areas (Meekes & Hassink, 2023). The second method uses regional input output tables to assess the profile and degree of embeddedness of repair in the regional economy (Instituto Galego de Estat stica or IGE, 2010).

Expected Results | Preliminary results indicate that repair employment is indeed more dispersed than most economic sectors. This would suggest that expanding the repair market in the framework of the transition towards the CE could result in labour creation which would additionally be highly dispersed at the local level. The analysis of the input output table shows that most repair activities show an average or below average level of insertion within the regional economy and higher than average dependence upon imports. It also shows that intermediate demand constitutes more than half of total demand. This adds nuance to the location patterns observed, since it shows that proximity refers to potential demand which includes both consumers and other firms. In the case of repair of cars or electronics critical mass is concentrated around urban areas, while repair of machinery is concentrated around industrial hubs.

Keywords | Circular economy, repair, regional development, territorial cohesion, sustainability.

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THE DIVERSIFICATION OF OCCUPATIONS IN BRAZIL: MECHANISMS OF RELATEDNESS AND THEIR DIFFUSION ACROSS CITIES

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Abstract

Purpose | Diversification of occupations in cities is well known to be a path-dependent process driven by relatedness (Farinha et al., 2019; Muneeppeerakul et al., 2013). The literature has identified different mechanisms by which occupations may be related: similar skills (similarity-based relatedness); similar due to sharing complementary tasks (complementary relatedness); or relatedness due to their spatial co-location (local synergy) (Farinha et al., 2019). From a theoretical perspective, these are the three dimensions through which jobs can relate to one another and generate positive agglomeration effects (Duranton and Puga, 2003). However, regions can also go beyond their local capabilities by diversifying and accessing productive capabilities from other regions through non-local connections and interregional relationships, depending on their complementary linkages (Balland and Boschma, 2021) and regional spillover effects (Gao et al., 2021). External connections have become even more important for urban development due to advances in communication and transportation technologies, which increasingly interconnect cities. This trend has given rise to a growing body of research on the urban economy, grounded in the notion that agglomeration economies extend beyond local boundaries—both in their geographical reach and through urban networks (Glaeser et al., 2016; Liang, 2024; Meijers et al., 2016; Capello, 2000). Here, we analyze the extent to which job diversification in Brazilian cities is related to the mechanisms of relatedness present in other cities during 2006–2019. New local jobs may be related to existing jobs in neighboring or connected cities that share similar skills, perform complementary functions, or exhibit local synergies.

Methodology/Approach | To that end, we use data from the *Annual Social Information Report* (RAIS) at the municipality–occupation level for the period 2006–2019, according to the *Brazilian Classification of Occupations* (CBO). Occupational entry and exit are analyzed using five-year windows, forming a panel data structure. Logit and Linear Probability Model (LPM) estimations are employed in the main specifications. Relatedness metrics are computed using the methodologies of Hidalgo et al. (2007) and Hausmann and Klinger (2007), while the approach of Farinha et al. (2019) is used to distinguish among its three mechanisms. The influence of inter-city connections is captured using regional spillover indicators from Gao et al. (2021) and complementary linkages originally developed by Balland and Boschma (2021).

Expected Results | It is expected that the three mechanisms of relatedness will be key determinants of occupational diversification in Brazil, particularly confirming the roles of complementarity, similarity, and synergy of occupations across cities (i.e., the diffusion of productive capabilities). Both local capabilities and access to non-local capabilities are expected to have a stronger effect on diversification through local synergy within relatedness, followed by the clustering of similar skills, and finally by the combination of tasks and functions in input–output relationships. Lastly, the discussion of the results sheds light on the formulation of regional policies by addressing the division of labor across cities.

Keywords | Occupational diversification, Unpacking relatedness, Occupational space, Evolutionary Economic Geography, Brazilian cities.

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VALOR DE MERCADO VS. VALOR DO CAPITAL PRÓPRIO: APLICAÇÃO AO SETOR DO TURISMO EM PORTUGAL

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Resumo

Objetivo | O presente estudo tem como objetivo analisar a criação de valor económico nas empresas do setor do turismo em Portugal, comparando o valor contabilístico do capital próprio com o valor económico estimado pelo indicador *Economic Value Added* (EVA). Num contexto em que o turismo assume um papel estruturante no desenvolvimento regional sustentável, este setor destaca-se não apenas pela sua relevância económica, mas também pela sua resiliência face a choques externos e pela sua capacidade de adaptação a contextos de elevada incerteza. Neste sentido, torna-se fundamental compreender de que forma as empresas do setor geram valor económico e quais são os principais fatores que influenciam esse processo, contribuindo para a competitividade e sustentabilidade dos territórios.

Metodologia | A análise empírica incide sobre empresas portuguesas dos setores de alojamento (CAE 55) e restauração (CAE 56), com base em dados recolhidos na SABI para o período de 2012 a 2023, correspondendo a um painel com 161.950 observações e 27.720 empresas. Recorre-se a regressões de dados em painel, permitindo conjugar a dimensão temporal e transversal da amostra e, assim, aumentar a robustez estatística das estimativas. Os modelos são estimados com efeitos fixos ao nível da empresa e do ano, controlando a heterogeneidade não observada, e utilizam erros-padrão robustos clusterizados ao nível da empresa, permitindo mitigar simultaneamente problemas de heterocedasticidade e autocorrelação. O EVA constitui a variável dependente, sendo explicado por variáveis económico-financeiras, ativo não corrente, passivo não corrente, capital próprio e EBIT líquido de impostos, normalizadas pelo total do ativo, bem como pela dimensão da empresa. As variáveis explicativas são consideradas com um desfasamento temporal de um período (t-1), assegurando a correta ordem temporal entre causa e efeito e reduzindo potenciais problemas de endogeneidade, nomeadamente simultaneidade e causalidade reversa. Os resultados são obtidos para a amostra total e analisados adicionalmente por subperíodos, setores de atividade (CAE), dimensão empresarial e forma jurídica, permitindo captar heterogeneidade nos determinantes da criação de valor.

Resultados | Os resultados evidenciam que o desempenho operacional constitui o principal determinante positivo da criação de valor económico, enquanto variáveis associadas à estrutura de capital apresentam, em geral, um impacto negativo quando não acompanhadas por níveis adequados de rendibilidade. A análise por segmentos revela diferenças relevantes consoante o setor de atividade, a dimensão e a forma jurídica das empresas, bem como ao longo do tempo, evidenciando a existência de heterogeneidade nos mecanismos de criação de valor. Estes resultados reforçam a importância da eficiência operacional e da gestão do capital na sustentabilidade económica das empresas do setor do turismo. Do ponto de vista do desenvolvimento regional, o estudo contribui para uma melhor compreensão dos mecanismos de criação de valor num setor altamente relevante e resiliente, fornecendo evidência empírica útil para gestores, investidores e decisores públicos na definição de estratégias orientadas para o crescimento sustentável e a competitividade territorial.

Palavras-Chave | Economic Value Added (EVA), criação de valor, turismo, avaliação de empresas, desenvolvimento regional.

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A TRIBUTAÇÃO ECOLÓGICA COMO INSTRUMENTO DE ENFRENTAMENTO ÀS MUDANÇAS CLIMÁTICAS NAS CAPITALS DA REGIÃO NORDESTE DO BRASIL**Thayse Santos da Cruz**

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Resumo

Este estudo investigou a utilização da tributação ecológica como instrumento de enfrentamento às mudanças climáticas nas capitais da região Nordeste do Brasil. Para alcançar o objetivo proposto, foi realizado um estudo de abordagem qualitativa, de natureza aplicada e descritiva. Empregou-se a pesquisa documental como procedimento de coleta de dados. Sob esta perspectiva, analisou-se leis, tratados, decretos, normas complementares, dados sociodemográficos do IBGE e indicadores de enfrentamento às mudanças climáticas do Programa Cidades Sustentáveis nos municípios de Salvador, Aracaju, Fortaleza, João Pessoa, Maceió, Natal, Recife, São Luís e Teresina. As evidências indicam que a tributação ecológica ocupa uma posição de instrumento emergente de governança climática urbana, sobretudo por meio do IPTU. Estes achados coadunam como os pressupostos defendidos por Gelain, Rupp & Damião (2025), Nascimento & Souza (2025), Azevedo, Oliveira & Conceição (2025), Madureira, Oliveira & Dantas (2023), Endo (2020), Azevedo & Portella (2019), Azevedo (2017). Destaca-se ainda que Salvador foi a capital investigada que apresentou melhor indicador de emissões de CO²e per capita (1,25), bem como maior densidade normativa e de incentivos fiscais, com destaque para os Programas de Certificação do IPTU Verde e do IPTU Amarelo. Entretanto, a referida cidade ainda convive com desafios expressivos em termos de população exposta a riscos, proporção de domicílios em áreas vulneráveis e limitações nas estratégias de gestão de desastres. Em tal vértice, conforme pontuam Azevedo e Portella (2019) e Herculano (2008) estas populações em situação de risco, pertencem, em sua maioria, aos grupos socialmente mais vulneráveis — como negros, indígenas, comunidades ribeirinhas e quilombolas— são desproporcionalmente afetadas por problemas como a baixa qualidade do ar, a ausência de saneamento básico, a gestão inadequada de resíduos e as condições precárias de moradia. Além disso, essas populações figuram entre as principais vítimas de desastres “naturais”. Diante do exposto, constata-se que a eficácia da tributação ecológica no enfrentamento das mudanças climáticas depende da capacidade estatal, integração intersetorial e da justiça territorial e distributiva, sem a qual os benefícios ecológicos podem coexistir com aprofundamento de desigualdades socioespaciais. Espera-se que os resultados dessa investigação contribuam para promover discussões estratégicas alinhadas à promoção dos Objetivos de Desenvolvimento Sustentável nº 10, nº 11 e nº 13, bem como para fornecer subsídios para que pesquisadores, gestores públicos, formuladores de políticas públicas, usuários dos serviços públicos, membros de observatórios sociais e de órgãos de controle, possam discutir estratégias mais assertivas para o enfrentamento das mudanças climáticas nas cidades.

Palavras-chave | Tributação ecológica, enfrentamento, mudanças climáticas, capitais nordestinas, Brasil.

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INDUSTRY 5.0 PILLARS AND ORGANISATIONAL PERFORMANCE: EMPIRICAL EVIDENCE FROM MANUFACTURING COMPANIES

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Abstract

Purpose | This study investigates the relationship between human-centricity, environmental sustainability, and organisational resilience, identified in the literature as the three fundamental pillars of Industry 5.0, and the organisational performance of industrial companies. It contributes to the literature by providing organisation-level empirical evidence on the relative influence of these pillars, a domain that remains largely conceptual, particularly within the manufacturing sector.

Methodology/Approach | A quantitative methodology was adopted, grounded in a structured questionnaire survey. The target population comprised Portuguese industrial companies from the manufacturing sector located in the Northern region of Portugal. Using non-probabilistic convenience sampling, 76 valid responses were obtained. The questionnaire was organised into seven sections: organisational data, people-centred strategy, organisational resilience, environmental sustainability, technology use and humanisation, performance indicators, and standards, methodologies and challenges. Data were collected via online survey between September and November 2025. Five hypotheses were tested using Pearson and Spearman correlation analyses, simple linear regression, and multiple linear regression.

Results | The findings indicate that human-centricity is the dominant predictor of organisational performance, with recognition systems, a culture of continuous improvement and creativity identified as the most critical dimensions. Environmental sustainability showed a weak and statistically non-significant association with organisational performance, suggesting that sustainability practices may still be in an early stage of integration or may exert their influence indirectly. In contrast, organisational resilience also showed a positive and statistically significant association with organisational performance, though with a more moderate predictive capacity, explaining approximately 22% of the variance in organisational performance, a notably lower effect than that observed for human-centricity. In the integrated model, the three Industry 5.0 pillars jointly explain 39% of the variance in organisational performance, though only human-centricity remains statistically significant. These findings suggest that human-centred practices constitute the primary strategic driver for industrial organisations transitioning to Industry 5.0.

Keywords | Industry 5.0, Human-Centricity, Organisational Resilience, Sustainability, Organisational Performance.

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GC BR INDEX: UMA PROPOSTA DE RANKING BASEADO EM EVIDÊNCIAS PARA AVALIAÇÃO DE BOAS PRÁTICAS DE GOVERNANÇA A PARTIR DOS DADOS “PRATIQUE OU EXPLIQUE” DA CVM (BRASIL)

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Resumo

Objetivo | Desenvolver o protótipo GC BR Index, um modelo computacional para sistematizar e classificar dados de governança corporativa baseados em evidências (Sanderson, 2002) do mecanismo brasileiro "Pratique ou Explique" divulgados pela Comissão de Valores Mobiliários (CVM). Este estudo está ancorado na perspectiva teórica do *decoupling* institucional (Meyer & Rowan, 1977; Bromley & Powell, 2012), com ênfase em duas perspectivas analíticas: o *policy-practice decoupling*, citado na literatura como a distância entre políticas formalmente declaradas e práticas implementadas; e o *means-ends decoupling*, compreendido como a desconexão entre os mecanismos adotados e os objetivos pretendidos pelas práticas de governança declaradas pelas companhias Brasileiras de capital aberto.

Metodologia | A pesquisa adota uma abordagem qualitativa, combinando análise documental e discursiva das justificativas corporativas declaradas no mecanismo brasileiro "Pratique ou Explique". O estudo considera requisitos normativos associados à ISO 37002:2021, relativa à gestão de canais de denúncia, e à Lei nº 12.846/2013, que dispõe sobre a responsabilização administrativa e civil de pessoas jurídicas por atos contra a administração pública brasileira. O protótipo utiliza variáveis dos informes (dataset em Excel Microsoft) de governança da CVM, referentes aos anos de 2024 e 2025. A modelagem tecnológica está em fase de desenvolvimento com apoio de ferramentas de inteligência artificial generativa (IAGen) e interfaces, visando à atribuição de indicadores com base no grau de adoção formal, qualidade da justificativa, coerência argumentativa, evidências de implementação e impactos institucionais esperados.

Resultados esperados | Espera-se que o GC BR Index permita distinguir evidências entre conformidade real e cerimonial nas práticas de governança das companhias analisadas. E por fim, casos em que a adesão formal aos mecanismos recomendados não se traduz em implementação operacional efetiva. A análise e a codificação dos resultados por setor econômico, macrorregião e segmento de listagem possibilitarão a identificação de variações na intensidade do *decoupling* institucional (*policy practice ou means ends*), bem como de possíveis assimetrias territoriais na qualidade da governança corporativa brasileira.

Originalidade/valor | A proposta contribui ao transformar dados regulatórios públicos em indicadores comparáveis de governança corporativa, oferecendo uma ferramenta analítica útil para pesquisadores, reguladores, investidores e conselhos de administração. Ao relacionar governança corporativa, evidências regulatórias e desigualdades territoriais, o estudo amplia o debate sobre *accountability* e desenvolvimento institucional.

Palavras-chave | Governança Corporativa, Pratique ou Explique, Inteligência Artificial, Decoupling institucional, Desigualdades territoriais, GC BR Index.

Nota | Este trabalho contempla parte do escopo da tese em desenvolvimento do doutorando Altieres de Oliveira Silva, vinculada ao Programa de Doutorado do Centro Universitário UNICURITIBA. A tese encontra-se em fase de desenvolvimento e tem previsão de defesa em meados de 2027.

Declaração de Uso de IA | Os autores declaram o uso de ferramentas de inteligência artificial generativa, incluindo ChatGPT, Google Gemini e Claude AI, para apoio à revisão linguística, organização textual, estruturação do resumo e modelagem conceitual do protótipo GC BR Index (<https://gbrindex.com/>). As ferramentas foram utilizadas de forma auxiliar, sem substituir a responsabilidade intelectual e analítica dos autores. O conteúdo final foi revisado, validado e assumido integralmente pelos autores, reconhecendo-se as limitações dessas ferramentas, como possíveis vieses, imprecisões e geração de informações não verificadas.

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BRIDGING TERRITORIAL DIVIDES: INTERREGIONAL GOVERNANCE FOR COHESION, RESILIENCE AND SUSTAINABILITY**Emília Malcata Rebelo**

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Abstract

Urban green infrastructure is increasingly recognized as a strategic asset for smart and sustainable cities, contributing simultaneously to environmental quality, social well-being, and territorial competitiveness. This paper examines how urban green spaces influence real estate valuation and residential preferences in the parish of Paranhos, Porto, Portugal, while discussing their implications for digital transition and AI-supported urban governance. The research combines qualitative and comparative methods, including case studies of four residential developments, field observation, market data analysis, and surveys with residents and real estate professionals.

Findings show that proximity to high-quality green spaces significantly increases perceived property value, attractiveness, and willingness to pay. However, the results also demonstrate that valuation depends less on the mere existence of green areas and more on accessibility, maintenance, multifunctionality, safety, and social use. Poorly integrated or low-quality green areas generate weaker market effects.

The study highlights the risk of “green gentrification,” where environmental amenities raise housing prices and reinforce socio-spatial inequalities if not accompanied by inclusive planning measures. In this context, digital tools, GIS platforms, urban sensors, and AI-based decision systems can support more balanced territorial governance by identifying underserved areas, optimizing green infrastructure investments, and monitoring equity impacts in real time.

The paper concludes that smart cities should integrate green infrastructure into digital urban strategies not only as an ecological resource, but as a governance mechanism for cohesion, resilience, and sustainable development. AI-enabled planning can help transform urban greening into a driver of territorial balance and shared prosperity.

Keywords | Infraestrutura Verde, Cidades Inteligentes, Valorização Imobiliária, Inteligência Artificial, Gentrificação Verde, Paranhos (Porto).

DETERMINANTS OF REGIONAL UNEMPLOYMENT IN PORTUGUESE REGIONS

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Abstract

Purpose | Portugal was one of the European countries most affected by the international economic crisis of 2008, the internal sovereign crisis, and the subsequent austerity measures. Based on these facts, the present paper develops a theoretical model to study the determinants of regional unemployment in Portuguese NUTS II, which is empirically tested using a fixed effects model, using data between 2009 and 2019 of Portuguese regions. Based on these, the present paper develops a theoretical model to study the determinants of regional unemployment in Portuguese regions.

Methodology/Approach | A theoretical model is applied to study the determinants of regional unemployment in Portuguese regions, which is empirically tested by a panel data with fixed effects model, using data between 2009 and 2019 for Portuguese NUTS II regions.

Expected Results | The results suggest that regional GDP, population density, and regional innovation are determinants of unemployment in Portuguese regions. This study also has important implications for the impact of crises, helping researchers and regional policy makers to predict how regions can better respond to and withstand current and future crises.

Keywords | Economic crises; unemployment; regional economy; regional development; Portuguese regions.

JEL Code | E24, J01, R23.

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PRÁTICAS SUSTENTÁVEIS NA RESTAURAÇÃO

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A sustentabilidade tem vindo a assumir um papel central nas estratégias empresariais e territoriais, particularmente em setores com elevado impacto ambiental, como a restauração. Este setor enfrenta desafios relacionados com o consumo intensivo de recursos naturais, a produção de resíduos e o desperdício alimentar, assumindo um papel estratégico na transição para modelos de desenvolvimento mais sustentáveis. Segundo Băltescu *et al.* (2022), a restauração constitui um dos setores mais críticos da cadeia alimentar global devido ao elevado consumo de água, energia e matérias-primas, bem como à significativa produção de resíduos. Paralelamente, a crescente pressão de consumidores e entidades reguladoras tem impulsionado a adoção de práticas alinhadas com os Objetivos de Desenvolvimento Sustentável, nomeadamente o ODS 12 e o ODS 13 (Camelo & Nogueira, 2024).

Apesar do crescente interesse científico pela sustentabilidade na restauração, permanecem escassos os estudos centrados em territórios urbanos intermédios e na relação entre práticas sustentáveis, turismo gastronómico e desenvolvimento territorial. Neste contexto, a presente investigação analisa as práticas sustentáveis implementadas no setor da restauração nos municípios de Barcelos, Braga, Guimarães e Vila Nova de Famalicão.

O principal objetivo consiste em identificar e analisar as práticas sustentáveis adotadas pelos estabelecimentos de restauração, bem como compreender as motivações, desafios e obstáculos associados à sua implementação. Metodologicamente, o estudo adota uma abordagem quantitativa com a aplicação de questionários a gestores e responsáveis de estabelecimentos de restauração.

Espera-se que os resultados contribuam para a identificação de boas práticas e desafios no setor, fornecendo evidência empírica relevante para o desenvolvimento de estratégias de gestão mais sustentáveis, resilientes e alinhadas com os desafios da transição ecológica.

Palavras-chave | Sustentabilidade, Restauração, Práticas Sustentáveis, Quadrilátero Urbano, Turismo Sustentável.

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DETERMINANTES TERRITORIAIS, SOCIOECONÓMICOS E POLÍTICOS DA DIVULGAÇÃO ON-LINE SOBRE ODS NOS MUNICÍPIOS DO NORTE DE PORTUGAL E ESPANHA**Manuel Rieiro-García**

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Objetivo | A implementação da Agenda 2030 colocou os governos locais como atores-chave na promoção do desenvolvimento sustentável, dada a sua proximidade com os cidadãos e a sua capacidade de adaptar os Objetivos de Desenvolvimento Sustentável (ODS) ao contexto territorial. Neste sentido, os municípios assumem um papel central não só na definição e implementação de políticas públicas, mas também na divulgação de informação sobre o seu contributo para os ODS. Apesar desta relevância, existe uma lacuna significativa na investigação sobre contabilidade e relato associada aos ODS particularmente no contexto do setor público (Bebbington et al. 2023). No âmbito específico dos governos locais, a literatura existente sobre a divulgação de informação relacionada com os ODS apresenta um desenvolvimento ainda fragmentado e predominantemente centrado em contextos nacionais. No contexto europeu, evidenciam-se o estudo de Monteiro et al. (2025) em Portugal, bem como os trabalhos de Meschede (2019), na Alemanha, e de Ribeiro-García et al. (2023a-b), em Espanha. Adicionalmente, Nicolò et al. (2023) alargam a análise à Itália, desenvolvendo uma abordagem comparativa com Espanha.

Não obstante estes contributos, persiste uma lacuna relevante na compreensão dos fatores que influenciam a divulgação dos ODS ao nível dos governos locais, especialmente quando se adotam abordagens comparativas entre países e se considera o papel dos websites municipais como principal meio de divulgação. A evidência empírica existente aponta para uma significativa heterogeneidade nos níveis de divulgação de informação entre municípios, o que reforça a necessidade de identificar os determinantes subjacentes a essas diferenças.

Neste contexto, torna-se pertinente desenvolver análises mais aprofundadas que permitam comparar práticas de divulgação dos ODS entre países com características institucionais semelhantes, contribuindo para uma melhor compreensão deste fenómeno emergente de relato no setor público local. Para o nosso estudo, selecionaram-se os contextos de Portugal e Espanha, atendendo às suas semelhanças culturais, institucionais e administrativas. Acresce que, de acordo com Monteiro et al. (2023), ambos os países se destacam no contexto europeu pelos elevados níveis de compromisso empresarial com os ODS, o que sustenta a expectativa de que os governos locais destes países apresentem também níveis relevantes de compromisso com a Agenda 2030 e, por conseguinte, no relato das suas práticas.

Assim, este estudo tem como objetivo analisar de que forma os fatores territoriais, socioeconómicos, políticos e demográficos influenciam a divulgação de informação sobre os ODS nos governos locais, adotando uma abordagem comparativa entre municípios do Norte de Portugal e Espanha. A investigação baseia-se na teoria institucional e na teoria da legitimidade, que interpretam a divulgação de informação como uma resposta às pressões do ambiente institucional e à necessidade de alinhamento com as expectativas sociais.

Metodologia | Do ponto de vista metodológico, utiliza-se uma base de dados de municípios portugueses e espanhóis para o ano de 2023, construindo-se um índice de divulgação dos ODS a partir da análise de conteúdo da informação disponibilizada nos websites municipais. São estimados modelos de regressão que permitem avaliar o impacto de variáveis territoriais (localização geográfica e região), demográficas (dimensão populacional, densidade e estrutura etária), socioeconómicas (desemprego), financeiras (capacidade

económica municipal), políticas (ideologia e fragmentação política) e de governação (género do presidente da câmara e representação feminina).

Resultados esperados | Sendo este um trabalho em curso, não é ainda possível apresentar resultados empíricos. Contudo, com base na literatura existente, espera-se confirmar a relevância de fatores políticos, nomeadamente a ideologia governativa e a fragmentação política, bem como o papel da representação feminina na promoção de práticas de divulgação dos ODS. Adicionalmente, antecipa-se que fatores territoriais e financeiros também desempenhem um papel significativo na explicação das diferenças observadas entre municípios. Os contributos esperados deste estudo são duplos. Por um lado, procura-se integrar num único quadro analítico diferentes fatores que têm sido analisados de forma isolada na literatura. Por outro lado, pretende-se fornecer evidência comparativa no contexto ibérico, contribuindo para o avanço do conhecimento sobre a divulgação dos ODS nos governos locais. Numa perspetiva de políticas públicas, os resultados poderão apoiar a identificação de condições territoriais e institucionais que promovam uma maior transparência e compromisso com a Agenda 2030 ao nível local.

Palavras-chave | Objetivos de Desenvolvimento Sustentável (ODS), Agenda 2030, Websites, Governo local, municípios, Península Ibérica.

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A INVESTIGAÇÃO EM FISCALIDADE AMBIENTAL EM PORTUGAL: PAPEL INSTRUMENTAL NA PROMOÇÃO DA GOVERNANÇA FISCAL SUSTENTÁVEL**Fátima David**

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Resumo

Finalidade | As questões ambientais assumem um papel cada vez mais determinante na tomada de decisões de agentes económicos, decisores políticos e cidadãos, ocupando uma posição central nas agendas nacionais e internacionais, incluindo em Portugal. Neste contexto, a governança fiscal sustentável emerge como um domínio estratégico para promover modelos urbanos mais resilientes, inclusivos e ambientalmente responsáveis. Assim, o estudo da fiscalidade ambiental, com base na investigação académica registada na plataforma portuguesa RENATES (Registo Nacional de Teses e Dissertações), revela-se de elevado significado para investigadores, Instituições de Ensino Superior (IES) e para os territórios onde este conhecimento é produzido e aplicado, contribuindo para a transferência de conhecimento, fomentando a inovação e apoiando a formulação de políticas públicas informadas e eficazes. Assim, os principais objetivos são: analisar a evolução temporal da produção académica na área da fiscalidade ambiental; identificar padrões relativos a instituições, graus académicos e abordagens metodológicas, entre outros aspetos relevantes; identificar as principais tendências e temáticas predominantes no domínio da fiscalidade ambiental; e identificar lacunas de investigação que possam orientar futuras investigações. Ao concretizar estes objetivos, pretende-se fornecer uma visão abrangente do panorama académico neste domínio e do seu contributo para a formulação de políticas fiscais orientadas para a governança fiscal sustentável.

Metodologia/Abordagem | Através da análise de conteúdo, esta investigação identifica padrões na produção e disseminação do conhecimento científico, evidenciando tendências na investigação académica e a sua articulação com os desafios do desenvolvimento sustentável. Ao examinar o conteúdo das teses de doutoramento e dissertações de mestrado realizadas em Portugal, bem como os registos de teses de doutoramento em curso e de teses realizadas no estrangeiro e reconhecidas em Portugal – com foco nas temáticas predominantes, nos métodos de recolha de dados e nas perspetivas dos autores – pretende-se contribuir significativamente para o avanço teórico e para a aplicação prática. Complementarmente, será realizada uma revisão da literatura com o objetivo de consolidar o enquadramento teórico e reforçar a capacidade crítica necessária para uma participação ativa e proativa na definição de estratégias e soluções orientadas para a sustentabilidade fiscal.

Resultados | Compreender a fiscalidade ambiental é essencial para avaliar o quadro de governança fiscal sustentável e identificar fontes alternativas de receita, assegurando, simultaneamente, a neutralidade do sistema fiscal, a competitividade económica e a adesão ao princípio do poluidor-pagador. Paralelamente, o alinhamento das políticas fiscais com os objetivos do desenvolvimento sustentável é crucial para promover uma governação ambiental responsável e eficaz. Neste contexto, as conclusões desta investigação procuram contribuir para o reforço da literacia e capacitação dos cidadãos e decisores, incentivando uma abordagem mais informada, participativa e orientada para o desenvolvimento sustentável, em particular no domínio de fiscalidade ambiental.

Palavras-chave | Fiscalidade ambiental, Governança fiscal, Desenvolvimento sustentável, RENATES, Portugal.

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UNIVERSITIES AS STRATEGIC AGENTS IN ACADEMIC COOPERATION FOR SUSTAINABLE DEVELOPMENT IN THE GLOBAL SOUTH: A SYSTEMATIC REVIEW OF METHODOLOGICAL TRANSFER (2016–2026)

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Abstract

Purpose | This study presents the protocol and preliminary results of a systematic literature review examining the role of universities as strategic agents in academic cooperation for sustainable development in the Global South, with emphasis on methodological transfer as a driving mechanism. Despite the growing relevance of South-South and triangular cooperation frameworks in regional development policy, limited attention has been paid to how higher education institutions evolve from traditional knowledge generators into active development agents through cooperative methodological exchange. This research addresses that gap by systematically mapping evidence on academic cooperation modalities, methodological transfer processes, and their contributions to sustainable development across Africa, Latin America, and Asia (2016–2026). The study is further motivated by the Colombian IAD methodology — an action-oriented framework transferred from Humboldt University Berlin’s SLE to Universidad Autónoma de Manizales — which illustrates the transformative potential of methodological transfer through South-South academic cooperation.

Design/Methodology | Following PRISMA 2020 guidelines, a systematic search was conducted across five databases: Web of Science, Scopus, ERIC, and SciELO. The search strategy was iteratively refined through a stepwise diagnostic process. The final three-block equation combines contextual descriptors (Global South, developing countries, LMIC), cooperation terms (international cooperation, higher education, university, South-South cooperation), and methodological terms (action research, co-production, capacity building). Documents in English, Spanish, and Portuguese published between 2016 and 2026 were considered. A thematic narrative synthesis approach is applied to the final corpus.

Findings | Preliminary screening reveals a growing body of evidence on universities as non-traditional actors in international cooperation. The literature identifies enabling conditions for effective methodological transfer — including institutional trust, shared epistemological frameworks, and funding continuity — and documents models of university-driven cooperation oriented toward co-production and participatory action. Cases from Latin America, Africa, and Asia show how action research methodologies, transferred through sustained academic partnerships, generate measurable territorial impacts including public policy formulation and community-based governance platforms. Key gaps include the lack of longitudinal impact assessments and the underrepresentation of African and Asian institutional perspectives.

Practical and Theoretical Implications | This review contributes to debates on interregional governance, territorial cohesion, and the role of higher education in sustainable development. It advances a reframing of universities as strategic cooperation agents whose value lies not only in knowledge production but in facilitating methodological learning across territorial boundaries. For policymakers and development agencies, findings offer evidence for designing cooperation frameworks that incorporate methodological transfer as a capacity-building mechanism to reduce territorial inequalities.

Keywords | Academic Cooperation; Methodological Transfer; Global South; Universities as Development Agents; Systematic Review; South-South Cooperation; Sustainable Development; Territorial Cohesion.

5G PRIVATE NETWORK IMPLEMENTATION CHALLENGES IN THE SINES SEAPORT ECOSYSTEM: POTENTIALITIES AND STAKEHOLDER PERSPECTIVES

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Abstract

The seaports industry may greatly benefit from applications enabled by 5G technology, and it could be scaled up through private network deployments to meet increasingly stringent performance requirements for throughput, latency, reliability, availability, security, and device density. A private 5G network is a dedicated local network offering tailored connectivity, optimised services, and enhanced security, whose deployment relies on coordinated collaboration across multiple sectors and stakeholders.

The Sines seaport comprises five terminals and is Portugal's leading port in terms of cargo volume, capable of accommodating all types of ships. It is the country's main port for energy supplies, including oil, oil products, and natural gas, connecting maritime, industrial, and logistics players. Furthermore, Sines is positioning itself as a key player in the general and containerised cargo sector, with promising growth potential. Neighbouring and integrated with the seaport via a high-capacity road and rail system, the Industrial and Logistic Zone is the largest area on the Iberian Peninsula designated for logistics platforms.

Given the 5G private networks opportunities within seaport ecosystems, this work aims to explore and identify the drivers and challenges of a range of business opportunities and stakeholders poised to leverage the unparalleled capabilities of this cutting-edge technology implementation in the Sines seaport context. The study is based on the technological innovation system framework, used to investigate the emergence and growth of new technological fields and industries, and proposes the development of a stakeholder and challenges mapping. Additionally, a questionnaire was applied to identify the innovation strategies of key Sines seaport stakeholders and to gauge their relevance and interest in adopting and using an advanced mobile network, as well as the business potential of such a network in this regional ecosystem.

Findings showed that 5G opportunities may be diverse and involve different economic activities, as it enables future innovation initiatives that are highly dependent on real-time experience, massive interconnection, tracking and monitoring, data transfer, artificial intelligence, and privacy and security. It could significantly influence and impact regional and local economic activities, promoting spillovers and complementarities.

From a general perspective, the Sines seaport organisations express an aspiration to implement leading activities such as advanced voice, text, and image communication; remote inspection, maintenance, and monitoring; and asset lifecycle management. Nevertheless, the limited interest in outstanding technologies with great potential to support seaport activities reveals an inconsistency since. A few entities expressed interest in evaluating the 5G deployment despite challenges with the availability and quality of the mobile network across a wide coverage area that does not meet certain project requirements, as well as weak communication integration. The deployment of a private 5G network in the Sines seaport requires coordinated governance among stakeholders, careful economic planning, and infrastructure tailored to technical requirements, while balancing different deployment models and addressing regulatory and spectrum constraints. It must also consider the continued competitiveness of existing communication technologies and the need for strong collaboration to ensure economic viability and the development of a sustainable digital ecosystem.

Keywords | 5G private network; innovation strategies; Sines seaport ecosystem.

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OUTSOURCING AND WAGES IN EUROPE: NEW EVIDENCE FROM THE EUROPEAN WORKING CONDITIONS SURVEY 2024**Teresa Farinha**

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Abstract

As outsourcing and other fragmented employment arrangements become more widespread across European labour markets, concerns have grown regarding their implications for wages, job quality and labour market segmentation. Our paper examines how outsourcing is associated with wage differences across workers, occupations, and economic activities in Europe. Although direct data on outsourced workers remain very limited, making comparisons between outsourced and non-outsourced workers difficult, researchers have developed indirect approaches to identify jobs that are more likely to be outsourced. Using the 2024 European Working Conditions Survey (EWCS), we develop a novel outsourcing classification by combining detailed occupations (ISCO-08 4-digit) and sectors (NACE Rev. 2.1 3-digit), commonly associated with outsourcing, as a proxy for identifying potentially outsourced jobs. The classification builds on and extends previous approaches in the literature, while focusing on service activities where contractor-based work arrangements are more clearly identifiable in survey data.

The analysis focuses on employees and estimates wage differences associated with different types of outsourcing-related activities across the EU, revealing substantial heterogeneity across outsourceable jobs. Operational outsourcing activities (including cleaning, security, catering and logistics) are associated with significantly lower wages, while higher-skilled professional outsourcing activities (such as IT, accounting and consultancy services) are associated with higher wages. The findings also reveal important differences across demographic and territorial dimensions, including gender, workplace size, degree of urbanisation, and European macro-regions.

A central contribution of the paper is to examine the extent to which observed wage disparities persist within similar occupational structures. Once comparisons are restricted to workers within the same or similar occupations, wage differences become substantially smaller or statistically insignificant. This suggests that occupational composition and skill sorting play a major role in explaining observed disparities. However, this does not imply that outsourcing is neutral in its labour market effects. Rather, the findings seem to indicate that outsourcing is concentrated in particular occupations and economic activities characterised by lower wages and more precarious working conditions, pointing to a close connection between outsourcing and broader processes of labour market segmentation.

The paper contributes to emerging research on job quality, outsourcing and labour market restructuring in Europe by proposing a more granular approach to identifying outsourceable jobs in survey data. It also provides policy-relevant evidence on how outsourcing interacts with labour market segmentation, territorial disparities and occupational inequalities amid broader digital and organisational transformations across the EU.

Keywords | Outsourcing; Labour market segmentation; Wage inequality; Job quality; European Union.

QUALIDADE DE OFERTA DOS SERVIÇOS PÚBLICOS PARA DINAMIZAÇÃO
DO TURISMO CULTURAL NO MUNICÍPIO DE CABINDA / ANGOLA

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Resumo

A presente pesquisa consiste em estudar: *Qualidade de oferta dos serviços públicos para dinamização do turismo cultural no Município de Cabinda/Angola*, situa-se na problemática de elaborar um plano de melhoria da qualidade de oferta dos serviços públicos relacionados com o turismo cultural no município de Cabinda /Angola, com incidência para o sector turístico cultural. O trabalho tem como objetivo de estudar a qualidade de oferta dos serviços públicos relacionados com o turismo cultural no município de Cabinda/Angola. Entrevista foi a técnica utilizada para obtenção de dados secundários e análise de conteúdo para o seu tratamento. A incidência foi dados relativamente do ano 2024. Como resultados, deduziu-se que para se alavancar estímulo no turismo cultural, é necessário criação e melhorias das infraestruturas culturais e sociais no município, criação de centros de informação turística, mapas de localização geográfica do Município com a finalidade de garantir uma melhoria da qualidade de vida da população que possa incentivar os turistas estrangeiros.

Palavras-chave | Serviços Públicos. Turismo Cultural. Cabinda. Gestão Pública. Infraestruturas Culturais.



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