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# on Resilience and Sustainable Regions

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### Keynote Speakers

Hannes Raffasaeder, Lead Coordinator European University E<sup>3</sup>UDRES<sup>2</sup>, on the topic "Open Innovation and Collaboration for Resilient and Sustainable Regions"

Antje Disterheft, Researcher and Integrated Member at CENSE/NOVA School of Science and Technology, on the topic "Resilience from within - why our inner worlds matter for transformative change"

Pedro Dominginhos, President of the National Recovery and Resilience Plan (RRP) Monitoring Commission, "Contribuição do PRR para os Objetivos de Desenvolvimento Sustentável"



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## EDITORIAL

### Editorial

Research on sustainability has gained relevance in recent decades. Since the 1980s, the awareness in the management of human, social, and ecological systems have increased. Being a transdisciplinary theme, it relates to the most varied topics, namely resilient economy, entrepreneurship and innovation, collaboration, governance and networks, technological, engineering and environmental solutions, which are transversal to different sectors such as agriculture, fisheries, tourism, or other services. The contribution of these topics to regional development and sustainability is consensual. In fact, and regarding research on sustainable development goals (SDG), and business, management, and innovation, it is evident the increased attention of research not only on themes of economic growth and consumption, but also of social development and environmental protection.

These proceedings represent the work of contributors to the 1<sup>st</sup> **International Conference on Resilience and Sustainable Regions (ICRSR24)**, hosted by Instituto Politécnico de Setúbal, Portugal. The conference Chair is Professor Maria Teresa Costa and Nelson Carriço, from Business School and School of Technology of Barreiro respectively. This work refers to several contributions from academics and researchers from 9 countries (Austria, Belgium, Brazil, Check Republic, Germany, Italy, Netherlands, Poland, and Portugal).

The success of the conference was a result of several important participations and commissions.

### Contributions

Authors with different backgrounds and institutions joined efforts to reflect, discuss, and share advances and trends on different scientific areas that contribute to the social development and environmental protection and consequently to the development and sustainability of the regions. These contributions were organized by topics, on two types of sessions, parallel and special, as shown below.



## Parallel sessions

### Topic: Regional Development and Sustainability

- Ludovico-Marques, Marco A; Paz, Maria Catarina. Source of stones on walls of Santiago fortress in Sesimbra
- Medeiros, Eduardo. How impactful was the period 2014-20 towards environmentally sustainable regions in Portugal?
- Ludovico-Marques, Marco A; Castro, Marcela S. Leveraging portuguese higher education institutions for regional development through decarbonization
- Mourato, Fausto; Martins, Helena G; Piteira, Martinha; Moreira, Sandrina B. Playing for the planet: a state of the art on gamification and serious games for raising awareness about responsible use of natural resources
- Simões, Luis; Reis, Leonilde; Galvão, Susana; Couto, Maria; Mata, Carlos; Caria, Maria Helena. Sustainability and regional development@IPS: a pilot experience
- Quintela, Joana; Costa, Carlos; Correia, Anabela. Sustainability in health and wellness tourism – the creation of health regions
- Carla Viana; Duarte Xara Brasil. Digital Transformation in Healthcare: Consumer Experience in Portugal's Health Sector
- Esengulova, Nazgul; Paziienza, Pasquale; Lopolito, Antonio; Morsilli, Michele; Balena, Pasquale. UNESCO Geopark to boost regional development?: A scenario for the marginal area of Gargano Promontory, Italy
- Fernandes, Mauro; Neves, Rui D. Assessment of mechanical performance of corroded steel fiber reinforced concrete
- Porcaro, Angelo. Blockchain and Tourism in rural areas: Its Potential and Implementation in the Gargano National Park
- Salah Uddin, Muhammad; Kabasakal, Ali; Lucia, Caterina De; Pasquale, Paziienza. Drivers and barriers to the shadow economy: do natural resource endowment and institutional quality matter
- Ranieri F., Santoro D., Grilli L., De Lucia C., Paziienza P. Evaluation of the tourism carrying capacity for sustainable management at the Tremiti Islands, Italy

**Topic: Resilient Economy, Entrepreneurship and Innovation**

- Pitacho, Liliana A; Cordeiro, João; Lima, Daniela; Martins, Helena G. Team Resilience Dynamics in High-Performance Teams: a systematic literature review
- Pedro Mares; Costa, Teresa Gomes da; Lima, Maria João. Antecedents of Entrepreneurial Intention in students of Polytechnic Institute of Setubal (Portugal).
- Ferreira, Inês A.; Mendes, Ana; Carriço, Nelson. Digital transformation in berth planning operations – a bibliometric analysis
- Teresa Gomes da Costa; Pedro Mares; Maria Lima. Entrepreneurship Education in International Context: Skills, Attitudes and Competencies that Promote Student Resilience
- Nuno Costa; João Lourenço. Process and product's resilience
- Dias, Rui Teixeira; Reis, Leonilde; Pardal, Pedro; Carvalho, Luísa; Russo, Nelson. Resilient companies in the region of Setúbal: an insightful reflection in times of uncertainty
- Duarte Xara Brasil; Pedro Pardal; João Pedro Cordeiro; Luísa Cagica Carvalho .Buying Local Products: Municipal Markets vs. Modern Trade. A Portuguese Case Study
- Baleizão, Ana Raquel; Miguel, Fernanda; Gomes, Ana Gabriela G.N.; Justino, Marta. Optimisation of viral RNA extraction with an extraction kit using sample poolings: case study for SARS-COV-2 Virus

**Topic: Technological, Engineering and Environmental Solutions**

- Rucha, Madalena; Piçarra, Susana; Sena da Fonseca, Bruno; Ferreira Pinto, Ana Paula; Mégre, Sofia. Advancing sustainability in built heritage conservation
- Piçarra, Susana; F. Silva, Hugo; Coelho, José; Araújo, Lara; Silva, Nelson; Oliveira, Cristina; Matos, Manuel; Barreiros, Ana. Circular use of water in agriculture: solution or threat?
- Santos, Carla A.; Coelho, Claudia; Gomes, Ana Gabriela G.N.; Tudella, Joana; Serralha, Maria Fátima; Dias, Nilmara; Santos, Sónia; Osório, Natália; Justino, Marta. Closing the loop: microalgae-based solutions for agroindustrial waste in Setúbal



- Castro, Marcela S; Lisboa, Leonardo; Barcaui, Andre; Navarro, Carlos. Unveiling the landscape of Artificial Intelligence in corporate management: insights from professionals
- Shabir, Maria. Does energy democracy really affect growth and environmental quality? early evidence from upper middle-income countries during 1997-2020
- Gameiro, Maria Lurdes; Gomes, Ana Gabriela G.N.; Justino, Marta; Serralha, Maria Fátima; Tudella, Joana. Recovery of precious metals from electronic wastes – a review
- Garcia, João Miranda; Soares, Aldina; Ruivo, Celestino. Smart solar vegetable dehidratation, a way to support a sustainable activity
- Lopes, Rodrigo; Reis, Leonilde; Dourado, Alcina. Technological solutions for a more resilient world: a contribution to responsible consumerism

#### **Topic: Society, Education, People and Behaviour**

- De Coninck, Sarah; Reulens, Ann. “Nothing about us without us”: results of a literature review and delphi study on engagement models for research
- Martins, Helena G; Rodrigues, Ana Cláudia; Lehmann, Melanie; Dolmann, Lisa Maria. From panic to panorama: globais insights into crisis training
- Lampreia, Paula; Martins, Helena G. Leading the charge: how workers’ views on leadership can shape culture shifts, a case study
- Martins, Helena G; Cordeiro, João Pedro; Carvalho, Luísa; Pitacho, Liliana A. Simmering success: a bibliometric approach to the literature and research agenda on entrepreneurial chefs
- Komino, Aline. The moral dimension in the consumption of organic foods

#### **Topic: Finance, Investments and Funding**

- Dias, Rui Teixeira; Chambino Ramos, Mariana. Analyzing The Nexus: Stock Indexes and Cryptocurrencies During the Russia-Ukraine War
- Bicho, Susana PR; Heliodoro, Paula A. Comparative Analysis of the Financial Performance of Companies in PSI20 and IBEX35, before and during Covid-19 Crisis



- Chambino Ramos, Mariana; Dias, Rui Teixeira. Interconnected markets: examining spillovers between stock indexes in the travel, hotels, restaurants, and leisure sector
- Chambino Ramos, Mariana; Dias, Rui Teixeira. Side effects and interactions: exploring the relationship between dirty and green cryptocurrencies and clean energy stock indexes

### Special sessions

#### Topic: Entrepreneurship and Innovation

- Analice Barbosa Pereira Carvalho, Stélia Braga Castro, Bioeconomy in the Brazilian Amazon: Advances and Challenges in Innovation for Sustainability
- Bruno Cesar Porsini Mangili, Camila Keila Magno Leonel, Sustainability of Cultivated Meat Production
- Camila Keila Magno Leonel, Laís Marques da Silva, Relationship Between Entrepreneurship and Geographical Indications (IGs): A Literature Review
- Frederico Eugênio Fernandes Filho, Entrepreneurial Behavior reflexes in Effectuation on Dynamic Capabilities: A Bibliographic Review
- Mariana Cristina da Silva, Rafael Vieira Alves Pinto, Transformational Leadership as a Critical Success Factor in Organizations
- Rafael Christofoletti, How to facilitate the Transfer of technology from the University to industry? A Systematic review
- Rosângela Monteiro, Bioplastic Reuse on Beaches
- Victor Haruo Nitatori Rodrigues Lourenço, the relationship Between Intellectual Capital and Financial Performance: A comparative analysis Between China and Japan
- Yan Figueiredo Foresti, Innovations on the Altitude Simulators Technologies: A Patent review

#### Topic: Resilience and Sustainability in Events: Innovative Approaches for Tourist Destinations

- Filipe Severino, ESTHE
- Franciso Silva, ESTHE



- Susana Gonçalves, ESTHE

**Topic: Circular Economy**

- Costa, Nuno RP; Santos, Carla A. Measurement system analysis of microalgae cell culture concentration – a contribution for innovative technologies
- Isabelle Lacourt, Accounting food waste composting GHG emissions and carbon in living soils in a fork to farm perspective

**Topic: Network and Cooperation in Higher Education – IBW**

- Danielle Bouwman, RUAS, IBW coordinator
- Martina Chalupová, College of Polytechnics Jihlava, IBW coordinator
- P.J.M. Koevoet-Sonneveld, RUAS, IBW coordinator
- Jaroslaw Tomaszewsk, IWSB University, BW coordinator
- Stef Mannaerts, UCLL, IBW coordinator
- Teresa Costa, ESCE/IPS, IBW coordinator
- Tim Colberg Hochschule Kaiserslautern, in representation of IBW coordinator

**Topic: Sustentabilidade e Resiliência**

- Jorge Gaspar – Associação Industrial Portuguesa
- Mário Parra da Silva – APEE e UN Global Compact Network Portugal
- Paula Guimarães – The Navigator Company



## SUSTAINABILITY IN HEALTH AND WELLNESS TOURISM – THE CREATION OF HEALTH REGIONS

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## EXTENDED ABSTRACT

### **Purpose**

Health and wellness tourism has been an area of research with several approaches in different geographical contexts (Cooper et al., 2023; Letunovska et al., 2020), although not with a very clear link to sustainability or its potential for territorial development. From a perspective of sustainability, this type of tourism has the potential to facilitate and contribute to the quality of life of communities from the moment it combines their different interests with those of visitors and respects the natural, cultural and economic resources of the territories. This balanced combination of factors is crucial for local and regional development, which is even more important for inland regions. Based on this assumption and considering that the Central region of Portugal is a centre of attraction for health and wellness tourism - where 50% of the country's thermal spas are located - the main aim of this research is to highlight the potential of health and wellness tourism for local and regional development.

### **Theoretical framework**

This research is based on the concept of 'health region', proposed by Pforr, Pechlaner, Locher, and Jochman (2014). Considering the demographic and psychographic changes point to growing awareness and concern with health issues, an emerging health tourism market that seeks new products and services related to health in a leisure environment (Pforr et al., 2014; Smith & Puczkó, 2015). According to Illing (2009), the focal points for regional health-based development as a key competence factor do not have to be restricted to the areas of elderly care services, medical technology, rehabilitation, biotechnology or the pharmaceutical industry, as regional competence in health can also be built on prevention, medical tourism, sport and fitness, as well as wellness products and services. In this sense, health assumes strategic importance, not only for the development of Health and Wellness Tourism, or even for Medical Tourism, but also appears as a key element for regional development in Portugal (Mota et al., 2023). From this perspective, the concept of "health region" emerges.



### **Design/methodology/approach**

This study consists of a theoretical and conceptual approach, based on an analysis of the characteristics of the Centro region destination, essentially in terms of its strategic location and the abundance of its thermal resources and respective exploitation structures. However, it is intended to contribute to the advancement of knowledge in the field of health and wellness tourism, demonstrating and providing evidence, in the future, through empirical research, of its potential for conversion into a 'health region'.

### **Findings**

This study shows that the Centro region of Portugal, and others with similar characteristics in terms of endogenous resources, has the right conditions to become a 'health region'. However, for a 'health region' to emerge and develop, it will be necessary to offer a variety and quality of health products and services, as well as its resources and endogenous potentials to create a specific regional profile for health with a view to regional development. This development also depends on establishing a network of regional knowledge, skills, abilities, and resources focused on health, creating networks with both individual companies and public institutions.

### **Research, practical & social implications**

In practical and social terms, this study can serve as a guiding thread for a more concerted policy among the various stakeholders to offer both residents and tourists an opportunity to safely access alternative healthcare, especially in a post-Covid-19 era when there are increasing concerns and constraints in the health sector. At the same time, this proposal serves as an alternative, promoting the sustainable development of the territory, both in terms of attracting visitors, promoting the quality of life, particularly of the older population that characterizes European demographics, and in terms of retaining the population in the territory through the creation of stable employment, which contrasts with the typical seasonality of health and wellness tourism. Besides that, according to Pforr et al. (2014), health regions that integrate a tourism dimension, other factors are considered to increase the attractiveness of a location, such as the natural landscape, clean air or a favourable climate can play an important role as factor conditions, complemented by local resources, the type, quality and cost of available infrastructure and also any cultural resources in the sense of heritage.

### **Originality/value**

The main contribution of this study is to highlight the potential of a territorial development model for the development of a specific health region, founded on thermal and wellness tourism, demonstrating that, according to their local profiles and resources, regions can be seen as competitive units capable of attracting specific target markets (Beritelli, Reinhold & Laesser, 2014). Although not many studies have yet been carried out on the effectiveness of operations in these regions, Germany has been adopting this model since the early 2000s, with the *Kneipp- und Unterallgäu* health region in Bavaria being of particular interest, a model that can be replicated in similar territories, namely in the Central region of Portugal.

**Keywords** - tourism, sustainability, health and wellness, health regions.



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