



## Tourism collaboration for sustainability in face of climate change and digital transformation

Maria de Lurdes Calisto

Filipe Segurado Severino – [filipe.severino@eshte.pt](mailto:filipe.severino@eshte.pt)

Teresa Costa

Miguel Belo

Ana Teresa Machado



## About the project



**SHIFT = Sustainability-oriented, Highly-interactive, and Innovation-based Framework for Tourism marketing**

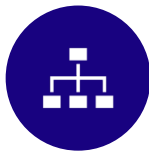
- 4 Higher-education institutions
- 10 researchers (Tourism, Business, Computer Sciences, ...)
- 3 years
- Funded by the “Fundação para a Ciência e Tecnologia” of Portugal – €249 888,76 ; Supported by Turismo de Portugal

### Aims

- to bring a **new interdisciplinary approach** to the challenges that tourism SMEs face.
- to develop a **new collaborative tourism marketing model** oriented towards sustainability and supported by digital technologies (includes the development of a **prototype of a digital platform** for marketing collaboration).



# About the project



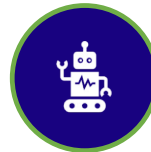
**WP1**

PROJECT  
MANAGEMENT



**WP2**

SCENARIOS FOR  
TOURISM



**WP3**

DEVELOPMENT OF  
A THEORETICAL  
MODEL OF  
COLLABORATIVE  
MARKETING FOR  
TOURISM



**WP4**

EMPIRICAL  
VALIDATION OF  
THE THEORETICAL  
MODEL



**WP5**

PROTOTYPE  
DEVELOPMENT OF  
A COLLABORATIVE  
MARKETING  
DIGITAL PLATFORM



**WP6**

DISSEMINATION



# Agenda

- Introduction
- Background
- Method
- Literature Review and Task 2 findings
- Findings - Demand Side
- Findings - Supply Side
- Discussion
- Conclusions



# Introduction

- **Tourism and Hospitality (T&H) firms are particularly vulnerable to the external environment** (the pandemic is a good example). In the next few years, **climate change and digital transformation** will be challenges (but also opportunities), which require **a transformative approach to tourism** (a paradigm shift). A paradigm shift **requires collective efforts**.
- Even though **collaborative efforts have been recognised as a source of competitive advantage** in T&H, previous research has recognised that **tourism marketing efforts are often made independently** by tourism entrepreneurs, SMEs and other tourism stakeholders.
- As a result, it is necessary to gain a deeper comprehension of the **viewpoints of tourism demand and supply with regard to collaborative efforts at the destination level in light of climate change and digital transformation**.



# Background

## *Tourism SMEs and the external environment*



**Political and legal factors** (Aguinis et al., 2023; Demiralay & Kilincarslan, 2019)

- Positive: Influence in tourism development, competitiveness, infrastructures, support business and establish regulation.
- Negative: Instability and conflicts influence investments and reputation.



**Economic factors** (Badulescu et al., 2021; Duyen et al., 2022)

- Economic conditions influence tourism.
- Economic growth, structure, and exchange rate affect stakeholders.
- Relationship between economic development, income growth and tourism demand.



**Social-Cultural factors** (Dong et al., 2020; Zhuang et al., 2019)

- Positive: Encourage to explore new places, growing awareness, changes in social norms and values.
- Direct influence on quality and attractiveness.



**Technological factors** (Cadle et al., 2010; Hitt et al., 2007)

- Information technology and improvements affects tourism activity.
- Technological development lead to tourism innovation.



**Natural environment** (Buckley et al., 2017; Fossgard & Stensland, 2021)

- Resources are important to tourism, particularly the natural resources.
- Relation in tourism resource volume, nature, and value with tourism activity scale, nature, attractiveness, or seasonality.
- Problems related with pollution and waste disposal.



# Background

## Tourism SMEs and collaboration

Advantages of collaboration:

-  Collaboration is crucial for: tourism product portfolio, product aggregation, cost reduction and efficiency, single marketing program, broader market reach, and greater economic impact on the region (Wang et al., 2009).
-  Motivations for collaboration can vary, including: the desire to share costs; the need to increase the destination's competitiveness and the ambition to gain a competitive advantage (Wang et al., 2013).
-  Emphasis on a balanced collaborative marketing approach: business success and community development (Ngo et al., 2018).
-  Collaborative marketing raises awareness of all destination elements, including SMEs (Yünc and Yüncü, 2016).





## Method

Literature review and background of outputs from SHIFT Project Task 2



Focus Groups to Demand-side (Brazil, Germany and Italy) and to Supply-side (Italian and Spanish tourism professionals)

Abductive approach (Aliseda, 2006), where the analytical framework was successively reoriented when confronted with the empirical world (Dubois & Gadde, 2014).





# Task 2 outputs from SHIFT Project



WP2

SCENARIOS FOR  
TOURISM

## Identification of key factors affecting tourism on a five-year horizon

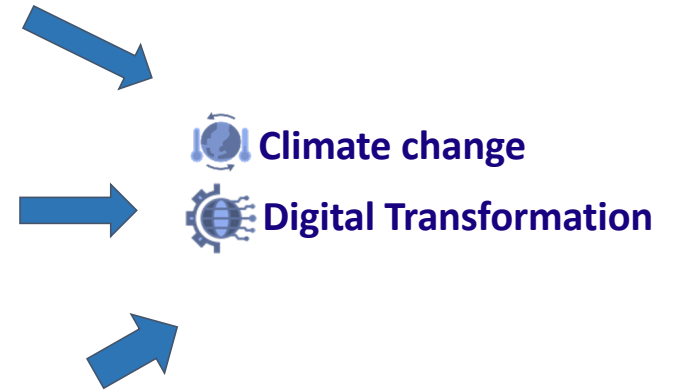
- **Systematic literature review**
- Interviews with multidisciplinary experts
- Round tables

## Scenario generation

- Survey to international experts.

## Scenarios formulation

- CATWOE interviews with experts in tourism.





# Literature Review and Task 2 Findings

## Tourism SMEs and the external environment

(Scenario – 5-year horizon)

### Climate Change

#### Supply side:

- Sazonality change
- Stakeholders' adaptation
- New opportunities/experiences
- New energy sources
- Contingency plans

#### Demand side:

- Sazonality change
- Changes on destination selection
- *Last-chance destinations*

Air travel reduction (regulation)



(Lake Tahoe, USA)

**Climate change increasingly unpredictable and prone to exacerbate global warming.**



# Literature Review and Task 2 Findings

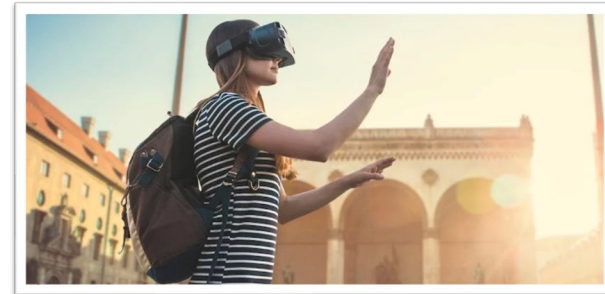
## *Tourism SMEs and the external environment*

(Scenario – 5-year horizon)

### Digital Transformation

#### Supply side:

- Supplementary tool
- Investments in AI, AR & VR
- Enhanced decision-making capacities
- Process simplification
- Product customization
- Innovation / New experiences
- Virtual promotion
- Easier forecasting
- Partnership establishment



#### Demand side:

- Digital Platforms increasing trend
- Real-time digital interaction
- Information accessibility
- Interest in face-to-face service
- AI important for demand
- Decrease in business travel
- Increased connectivity





## Findings on the Demand-side



Concerns: security, political issues, cultural and social sustainability.



Travel decisions: monetary considerations, cultural hospitable societies and destinations travel amenities.



Internet, opinion-sharing websites, and word-of-mouth influence the decisions-making.



Collaboration: transparency, recommendations and bundle activities.



Future: digital transformation and the expansion and facilitation of air travel, as well as the simplification of travel procedures and reduction of travel costs.










Environmental sustainability: not the primary factor influencing visitors' travel decisions.

↳ Eco-fatigue



## Findings on the Supply-side

-  Collaboration: complex, but ensures advancement = favorable outcomes.
-  It must consist of a coordinated effort toward an integrated objective
-  Raises consciousness regarding sustainability concerns.
-  Investments in digital transformation are crucial.
-  Enables a change of perspectives and the removal of opposition to digital transformation.
-  By using more sustainable tools and strategies, technology enables process control.
-  **Climate change can be influenced by the implementation of technological advancements that promote environmental sustainability.**



# Discussion

Scenarios for the future



Demand-side



Digital Transformation



Climate change



Possible solution:

Product driven behaviour

Scenarios for the future



Supply-side



Digital Transformation



Collaboration



Climate change mitigation



Although digital transformation has major future implications, how sustainability is prioritized in climate change mitigation on tourist demand is unclear. However, the tourism supply must collaborate and incorporate intrinsic measures into their products and services to influence sustainability on demand-side.



Project reference: PTDC/EDE-OGE/2146/2021





## Conclusions

- Collaboration is essential for sustainable tourism and yields many benefits in sustainability.
- Stakeholders must manage challenges in a dynamic environment impacted by digital transformation and climate change.
- Collaboration success depends on commitment, mutual goals, social values, and facilitative factors like public support, ethical agreements, and resource sharing.
- "Eco-fatigue" and digital advancements generate complex trade-offs between environmental and technological concerns.
- Through collaboration, the tourism industry can overcome these challenges and thrive.

### Next Steps:

Development of a research study examining the phenomenon of "eco-fatigue" and "product-driven behavior", the saturation point of sustainability, its impact on tourist demand, and identify the most successful solutions.



## Tourism collaboration for sustainability in face of climate change and digital transformation

Maria de Lurdes Calisto

Filipe Segurado Severino – [filipe.severino@eshte.pt](mailto:filipe.severino@eshte.pt)

Teresa Costa

Miguel Belo

Ana Teresa Machado



This research is supported by "Fundação para a Ciência e Tecnologia" (FCT), Portugal, through the SHIFT project (Sustainability-oriented, Highly interactive, and Innovation-based Framework for Tourism marketing), reference number PTDC/EDE-OGE/2146/2021.



Project reference: PTDC/EDE-OGE/2146/2021

