

# Academic publications on sustainable cultural tourism, resilience and the TALC model

## Smart CulTour

Smart Cultural Tourism as a Driver of  
Sustainable Development of European Regions

Deliverable  
**D4.3**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 870708

**Disclaimer:** The contents of this deliverable are the sole responsibility of one or more Parties of the SmartCulTour consortium and can under no circumstances be regarded as reflecting the position of the Research Executive Agency and European Commission under the European Union's Horizon 2020 programme.

**Copyright and Reprint Permissions:**

*"You may freely reproduce all or part of this paper for non-commercial purposes, provided that the following conditions are fulfilled: (i) to cite the authors, as the copyright owners (ii) to cite the SmartCulTour Project and mention that the EC co-finances it, by means of including this statement "Smart Cultural Tourism as a Driver of Sustainable Development of European Regions - SmartCulTour Project no. H2020-870708 co financed by EC H2020 program" and (iii) not to alter the information."*

---

**How to quote this document:**

Use the references of the specific academic publications, rather than quoting the amalgamated deliverable report.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.870708

## Deliverable D4.3

# Title: Academic publications on sustainable cultural tourism, resilience and the TALC model

**Due date:** April 2021

**Submission date:**

April 2021 (Version 1)

June 2021 (Version 2)

**Approved by Leader of Work Package:** Lidija Petrić (FEBT Split)

**Type:** Report

**Author List:** Lidija Petrić (FEBT Split)

Marko Hell (FEBT Split)

Jan van der Borg (KU Leuven)

Nicola Camatti (UNIVE)

Dario Bertocchi (UNIVE)

Hrvoje Carić (Institute for Tourism Zagreb)

Blanka Škrabić Perić (FEBT Split)

Blanka Šimundić (FEBT Split)

Vinko Muštra (FEBT Split)

Marijana Vugdelija (International Medical Corps)

Bart Neuts (KU Leuven)

Senne Kimps (Toerisme Vlaanderen)

### Dissemination Level

---

- PU:** Public
- CO:** Confidential, only for members of the consortium (including the Commission Services)
-



# A**bstract**

As required by Art. 29 of the Grant Agreement, each beneficiary must – as soon as possible – disseminate its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium). As part of this obligation, within the SmartCulTour-project, multiple deliverables have been foreseen across work packages, to focus on an open access publication strategy.

This deliverable provides metadata and abstracts of the publications residing under Work Package 4: “Assessing the impacts of cultural tourism”. Deliverable 4.3 aimed to provide “A minimum of 3 academic papers on sustainable cultural tourism, resilience, and the TALC model” and therefore focuses on sustainable cultural tourism indicators, the link between cultural tourism development, sustainability and resilience, and the integration of cultural tourism, sustainability/resilience, and the tourism area life cycle. The full papers are available in open access and can be found by following the DOI links provided.

The deliverable is a living document that, after initial submission, can be updated in case of additional scientific publications within the scope of Work Package 4.

# H

## istory of changes

### Updates made in version 2

- Journal article “The Role of UNESCO Cultural Heritage and Cultural Sector in Tourism Development: The Case of EU Countries” added, from authors Blanka Škrabić Perić (FEBT Split), Blanka Šimundić (FEBT Split), Vinko Muštra (FEBT Split), and Marijana Vugdelija (International Medical Corps)
- Journal article “Resident Support for Tourism Development: Application of a Simplified Resident Empowerment through Tourism Scale on Developing Destinations in Flanders” added, from authors Bart Neuts (KU Leuven), Senne Kimps (Toerisme Vlaanderen), and Jan van der Borg (KU Leuven)

# C Contents

<b>Abstract</b> .....	<b>i</b>
<b>History of changes</b> .....	<b>ii</b>
Updates made in version 2.....	ii
<b>Contents</b> .....	<b>iii</b>
<b>Metadata for scientific publications</b> .....	<b>1</b>
1.1. Journal article: Process orientation of the world heritage city management system .....	1
1.2. Journal article: A digital response system to mitigate overtourism. The case of Dubrovnik.....	2
1.3. Journal article: System dynamics approach to TALC modeling.....	3
1.4. Journal article: The role of UNESCO Cultural Heritage and Cultural Sector in tourism development: The case of EU countries .....	4
1.5. Journal article: Resident support for tourism development: Application of a simplified Resident Empowerment through Tourism Scale on developing destinations in Flanders .....	5

# 01 Metadata for scientific publications

## 1.1. Journal article: Process orientation of the world heritage city management system

Metadata	
Year	2020
Title	Process orientation of the world heritage city management system
Author(s)	Lidija Petrić, Marko Hell, Jan van der Borg
Journal	Journal of Cultural Heritage
Volume	46
Issue	
Pages	259-267
Keywords	World heritage cities, Management system, Meta-model, Process orientation, Split, Venice
Type	Peer-reviewed journal article
DOI	<a href="https://doi.org/10.1016/j.culher.2020.07.009">https://doi.org/10.1016/j.culher.2020.07.009</a>

### Abstract

**Purpose.** – This article aims to explain how the world heritage city management system may be improved, and the structure of its processes enhanced by including relevant stakeholders to reach better results, i.e. outputs and outcomes. With this aim, process-based orientation is proposed as a new management approach.

**Design/methodology.** – The article is divided into two parts. In the first part, theoretical background of the world heritage city management system is given, and process orientation of heritage city management explained. In the second part theoretical concepts were applied to the cases of the world heritage cities (sites) of Split (Croatia) and Venice (Italy). A brief description of the basic characteristics (elements, processes) and of the main problems related to the results (outputs and outcomes) is followed by the application of the Unified Modelling Language as the method. The process architecture of the new management meta-model is presented, processes designed and documented, and activities and responsibilities among stakeholders, both existing as well as potential, within the proposed hierarchical structure shared.

**Findings.** – By proposing the process-oriented approach to the management of world heritage cities, the paper sets out to contribute to the growing body of knowledge related to cultural heritage management (especially world heritage cities). By applying knowledge from different theories into a process-based approach to the management of world heritage cities, it enables UNESCO's directives to be implemented into the actual managerial system of a World Heritage Site (WHS). We find it potentially useful not only to WHS managers, but also to scholars and other experts who have managerial responsibilities but limited knowledge in this area.



## 1.2. Journal article: A digital response system to mitigate overtourism. The case of Dubrovnik

Metadata	
<b>Year</b>	2020
<b>Title</b>	A digital response system to mitigate overtourism. The case of Dubrovnik
<b>Author(s)</b>	Nicola Camatti, Dario Bertocchi, Hrvoje Carić, Jan van der Borg
<b>Journal</b>	Journal of Travel & Tourism Marketing
<b>Volume</b>	37
<b>Issue</b>	8-9
<b>Pages</b>	887-901
<b>Keywords</b>	Overtourism, Tourism carrying capacity, Dubrovnik, Digital solution, Linear programming goal, E-marketing, Demarketing, Mobile technology, App, Sustainable tourism
<b>Type</b>	Peer-reviewed journal article
<b>DOI</b>	<a href="https://doi.org/10.1080/10548408.2020.1828230">https://doi.org/10.1080/10548408.2020.1828230</a>

### Abstract

In order to design effective responses to the complex phenomenon of overtourism, the tourism carrying capacity (TCC) of a destination is an essential reference point. This paper provides in-depth analysis of this correlation through the case study of Dubrovnik. The study applies a TCC calculation model that is able to quantitatively include the main effects of overtourism. The paper illustrates how these results can be used to automate specific decongestion policies by conceptualizing a digital response system for real-time intervention to mitigate the undesirable effects of overtourism.

### 1.3. Journal article: System dynamics approach to TALC modeling

Metadata	
<b>Year</b>	2021
<b>Title</b>	System dynamics approach to TALC modeling
<b>Author(s)</b>	Marko Hell, Lidija Petrić
<b>Journal</b>	Sustainability
<b>Volume</b>	13
<b>Issue</b>	4803
<b>Pages</b>	1-23
<b>Keywords</b>	System dynamics, TALC system dynamics model; Living labs/destinations
<b>Type</b>	Peer-reviewed journal article
<b>DOI</b>	<a href="https://doi.org/10.3390/su13094803">https://doi.org/10.3390/su13094803</a>

#### Abstract

The system dynamics applied in this research on modeling a tourist destination (area) life cycle (TALC) contributes to understanding its behavior and the way that information feedback governs the use of feedback loops, delays and stocks and flows. On this basis, a system dynamic three-staged TALC model is conceptualized, with the number of visitors  $V$  as an indicator of the carrying capacities' dynamics and the flow function  $V(t)$  to determine the TALC stages. In the first supply-dominance stage, the model indicated that arrivals are growing until the point of inflexion. After this point, arrivals continue growing (but with diminishing growth rates), indicating the beginning of the demand-dominance stage, ending up with the saturation point, i.e., the maximum number of visitors. The simulated TALC system dynamics model was then applied to five EU destinations (Living Labs) to explain their development along the observed period (2007–2019). The analysis revealed that all observed Living Labs reached the second lifecycle stage, with one entered as early as in 2015 and another in 2018. Lifecycle stage durations may significantly differ across the destinations, as do the policies used either to prevent stagnation or to restructure the offer to become more sustainable and resilient.

## 1.4. Journal article: The role of UNESCO Cultural Heritage and Cultural Sector in tourism development: The case of EU countries

Metadata	
<b>Year</b>	2021
<b>Title</b>	The role of UNESCO Cultural Heritage and Cultural Sector in tourism development: The case of EU countries
<b>Author(s)</b>	Blanka Škrabić Perić, Blanka Šimundić, Vinko Muštra, Marijana Vugdelija
<b>Journal</b>	Sustainability
<b>Volume</b>	13
<b>Issue</b>	5473
<b>Pages</b>	1-14
<b>Keywords</b>	UNESCO heritage, Cultural sector, Sustainable tourism development, Panel data analysis, European Union
<b>Type</b>	Peer-reviewed journal article
<b>DOI</b>	<a href="https://doi.org/10.3390/su13105473">https://doi.org/10.3390/su13105473</a>

### Abstract

Culture and tourism have always been related, but with blurred interpretations of the empirical relationship between those phenomena. This paper estimates the impact of different cultural indicators on tourism development in 27 EU member states for the period 2008–2018, by using dynamic panel data. The results indicate that the number of UNESCO Heritage Sites do not have a significant influence on the number of tourism overnights, whereas there are significant positive effects on international tourism receipts and tourism employment. Moreover, the additional cultural sector specifics considered in the analysis; government expenditure on culture and employment in culture, showed to have a significant positive influence on all three tourism indicators used in the research. In addition, the research results indicate that the real GDP per capita and the level of human capital are significant drivers of tourism development.

## 1.5. Journal article: Resident support for tourism development: Application of a simplified Resident Empowerment through Tourism Scale on developing destinations in Flanders

Metadata	
<b>Year</b>	2021
<b>Title</b>	Resident support for tourism development: Application of a simplified Resident Empowerment through Tourism Scale on developing destinations in Flanders
<b>Author(s)</b>	Bart Neuts, Senne Kimps, Jan van der Borg
<b>Journal</b>	Sustainability
<b>Volume</b>	13
<b>Issue</b>	6934
<b>Pages</b>	1-19
<b>Keywords</b>	Resident attitudes, Resident Empowerment through Tourism, Social exchange theory, PLS-SEM
<b>Type</b>	Peer-reviewed journal article
<b>DOI</b>	<a href="https://doi.org/10.3390/su13126934">https://doi.org/10.3390/su13126934</a>

### Abstract

While the potential macro-economic benefits of tourism development have been well-established, the negative social effects of uninhibited growth have received increased attention in the last decade, emphasizing the central role of communities in the search for a sustainable balance in tourism. This paper focuses on the relatively underdeveloped Scheldeland region in Flanders (Belgium), where a strategic goal is to leverage cultural and natural heritage to boost development. Via a resident questionnaire based on a simplified version of the Resident Empowerment through Tourism Scale (RETS), we identified support for tourism development and deconstructed the drivers of this support. The objective was to empirically validate the research instrument and underlying theory in a situation of relative 'undertourism' and prospective future growth. The questionnaire collected 2058 responses, and the partial least squares-structural equation modeling (PLS-SEM) results indicated that support for tourism, which was generally high across the seven municipalities, was mainly affected by social, psychological, and political empowerment, with personal economic benefits not playing a significant role. These results show that social exchange theory (SET) as a theoretical basis for potential tourism support has limited validity in currently underdeveloped destinations. Secondly, comparatively speaking, the municipalities with the lowest tourism development were least supportive of tourism growth, with an increase in tourism intensity seemingly leading to increasing support due to a higher awareness of accrued benefits through tourism.