



## **\ Report 3.1.**

### ***“Tools and list of indicators for measuring territorial development through Culture and Tourism”***

**August 2022**



## Table of Contents

Introduction and general context.....	3
The Impact of Culture & Tourism on Territorial Development .....	5
<b>Culture and Tourism in the Danube Region</b> .....	5
<b>Overview of the Priority Area 3: Culture and Tourism</b> .....	5
<b>The Need for a Common Set of Indicators for Measuring the Territorial Impact of Culture and Tourism</b> .....	8
<b>Identifying the Right Indicators</b> .....	8
<b>Description of Indicators and Regions' Performance</b> .....	12
<i>Tourism</i> .....	12
<i>Culture</i> .....	23
From Limitations Towards a More Comprehensive Monitoring System .....	26
<b>Developing a More Comprehensive Framework of Tourism and Culture Indicators</b> .....	27
<b>Territorial Impact Assessment</b> .....	31
References .....	33

## Table of Figures

Figure 1. Number of establishments, 2014-2019 .....	12
Figure 2. Number of bed places, 2014-2019.....	13
Figure 3. Occupancy rate, 2019.....	14
Figure 4. Arrivals at tourist destination, 2014-2019 .....	15
Figure 5. Nights spent per 1000 inhabitants, 2014-2019 .....	16
Figure 6. Seasonality, 2020 .....	17
Figure 7. Local units in tourism related activities, 2014-2019 .....	18
Figure 8. Persons employment in tourism related activities, 2014-2019.....	19
Figure 9. Guest nights offered via collaborative platforms, 2018-2021 .....	20
Figure 10. Tourism regional balance, 2010-2018 .....	21
Figure 11. Tourism regional average distance, 2010-2018 .....	22
Figure 12. Tourism regional concentration, 2010-2019.....	23
Figure 13. Number of UNESCO World heritage sites, 2022 .....	24
Figure 14. Active local units in culture related activities, 2014-2019.....	25
Figure 15. Employment in culture related activities, 2014-2019.....	26

# Introduction and general context

## SUSTAINABLE TERRITORIAL DEVELOPMENT

Being one of the fastest growing industries in the modern global economy, tourism-related activities face unprecedented levels of competition. This competition exists not only between providers of goods and services, but also between travel destinations and, as a result, between **territories**. While tourism can provide opportunities for regional development based on sustainable capitalization on territorial resources, it is also recognized that tourism has an impact on the utilisation of these resources, while the organisation of economic systems can negatively contribute to a destination's sustainability.

## EVIDENCE-BASED DECISION MAKING

In this context, the recent development of digital technologies, as well as their widespread application in many aspects of our daily lives, may offer opportunities to mitigate such potential negative effects on destination sustainability. The UNWTO stated at the 1st UNWTO World Conference on Smart Destinations on February 2017 that smart destinations are critical to sustainable development, specifically in terms of measurement and evidence-based decision making, prioritisation, and foresight into the future<sup>1</sup>.

This trend is also reflected in the current Action Plan for the PA3: Culture and Tourism<sup>2</sup>, which aims at developing a "Smart Destination Danube" by collecting relevant territorial evidence on cultural and tourism activities, by establishing a comprehensive database giving an overview of the cultural and tourism activities in the Danube Region and by creating an integrated transnational network of entities (observatories) that will collect, process and analyse data, as well as exchange and disseminate information on sustainable tourism development on a continuous basis.

## LACK OF RELIABLE DATA AND THE NEED FOR NEW METHODS AND TOOLS

The scope, reach, and nature of tourism and culture, as well as the diversity of stakeholders involved are constantly changing, determining new information requirements for effectively planning and managing of the two sectors. This is explained by the growing importance of tourism and culture in the development of local, regional, and national economies, as well as the technological advancements that make geographical boundaries less relevant to economic planning, which determine that many traditional data resources and related impact measurement methods become less useful, and in some cases, obsolete (Notarstefano & Volo, 2012).

Therefore, there is a particular need for updated conceptual frameworks that can provide theoretical and operational guidance and support for collecting more complex and detailed data and evidence of related phenomena across a broader geographical area and over additional dimensions of more spheres of tourism and culture-related activity, while also serving the need of authorities to measure the impact of tourism and culture at regional and local levels. Currently,

---

<sup>1</sup> UNWTO. (2017). Innovation, Technology and Sustainability - Pillars of Smart Destinations <https://www.unwto.org/archive/europe/press-release/2017-02-21/innovation-technology-and-sustainability-pillars-smart-destinations>

<sup>2</sup> EU Strategy for the Danube Region Action Plan (2020); Priority Area 3: Culture and Tourism; ACTION 4: Develop a "Smart Destination Danube"

the main source for reliable tourism and cultural data for the Danube Region is EUROSTAT database. However, due to the spatial and temporal resolution limitations of the currently accessible EUROSTAT data, it is challenging to characterize tourism and culture at precise spatial and temporal scales (e.g., local vs. national data, monthly vs. annual data).

## TERRITORIAL DEVELOPMENT IMPACT

The close connection between tourism, culture, and the territorial characteristics determines the need to understand the fundamental analytical dimensions for assessing their main territorial impacts. Despite the abundance of studies on the economic impacts of tourism and culture on regional development, the effects of the two industries on poverty alleviation in less developed countries and regions (Lapeyre, 2011), or the environmental consequences of tourism activities (both in natural areas and in urban contexts), there have been few attempts to analyse the overall impacts of tourism and culture on all aspects of territory development at the same time (economy, society, environment, governance, spatial planning).

As previously mentioned, one possible reason is the lack of data at regional and local levels which could allow a more complex analysis.

## SCOPE OF THE REPORT

In this context, the aim of this report is to identify a set of indicators and data sources which would allow the monitoring and evaluation of the culture and tourism impact on territorial development.

Constant monitoring of the territorial development through culture and tourism can be used as an instrument for coordinating the socio-economic development through preventing environmental problems and simultaneously protecting the natural and cultural environment. The main challenge is to ensure efficient use of limited land resources and ensure balanced regional business development and balanced use of resources, including natural resources and landscape resources, soil, water, and air.

A preliminary review of data availability suggests that at this stage it is not possible to go beyond the pure characterization of the overall performance, infrastructure and business activity in tourism and culture

# The Impact of Culture & Tourism on Territorial Development

## Culture and Tourism in the Danube Region

The Danube Region is one of the most complex areas in terms of social, economic, environmental, and urban challenges - a heterogeneous context for policy making that retains many characteristics of Eastern Europe's former overly centralized governance systems, and which frequently lags behind in terms of economic competitiveness, governance performance, infrastructure investments, and social capital.

Furthermore, the region is confronted with a number of challenges that have a direct impact on its liveability and attractiveness for residents, tourists, and investors alike: environmental issues and threats, poor transportation connectivity, insufficient energy connections, safety and security issues, and a generally unequal socioeconomic development between the West and the East.

The Danube Region also has a diverse natural, cultural (both material and immaterial), and ethnic heritage, which many stakeholders see as the area's main territorial attraction. A large number of UNESCO world cultural and natural heritage sites, as well as other monuments, protected areas, traditions, and locally authentic products, make the Danube Region one of the most attractive destinations for tourists. Cultural and natural heritage can support long-term growth and development / specialization of local economies if it is preserved and capitalized on in a participatory or interdisciplinary manner (Dimitriu et al., 2018). However, at the moment, heritage is frequently underutilized and undervalued, while local, cross-border, and even transnational tourism value chains are either underdeveloped or non-existent.

## Overview of the Priority Area 3: Culture and Tourism

The Priority Area 3 "Culture, tourism, and people-to-people contacts" tries to address the aforementioned issues by promoting sustainable tourism and encouraging the development of the cultural activities and creative sectors

PA OBJECTIVES	ACTIONS	DESCRIPTION
<b>I. Developing sustainable tourism</b>	<b>ACTION 1:</b> Promote sustainable tourism in the Danube Region and capitalise on EUSDR projects in the areas of culture, nature and tourism	Promote investments in green and blue forms of tourism incl. all forms of ecotourism, cultural tourism, cycling, hiking and activity tourism as well as innovative SMEs active in this area; Develop effective destination management structures/systems: develop integrated approach to sustainable destinations, providing synergies among all stakeholders (from tourism, culture, sports, health etc), stimulating development of coherent destination management (through trainings, education etc.); Establish excellence centres for innovation in inter-disciplinary product design (sub

		forms of creative and cultural tourism, health tourism, active tourism, etc.)
	ACTION 2: Support and promote cultural tourism in the Danube Region	<p>Develop relevant clusters and networks of museums and galleries including interpretation and visitor centres on both tangible and intangible heritage within the Danube Region and develop interpretation, communication and marketing strategies for its touristic valorisation.</p> <p>Awareness raising campaigns to be organised in order to stimulate an integrated approach to cultural heritage presentation and interpretation for wider tourism audiences and visitors. Visibility of heritage to be stimulated through innovative sustainable tourism promotion. Promote the UNESCO heritage and Danube Limes in the member countries, raise awareness about the tentative lists in the respective countries, organisation of events / festivals with impact on regional level, which promote the cultural heritage of the region.</p>
	ACTION 3: Invest in sustainable quality products, services, innovative forms and infrastructure in the fields of tourism and culture, promote skills, education and creating jobs in the related areas	<p>Stimulate cross-sectoral partnerships/ projects/ initiatives; invest in knowledge management and human resource development, facilitate mobility schemes for people active in or studying the areas of tourism or culture; stimulate expert-to-expert exchange (E2EE) in order to enhance transparent innovation in cultural tourism initiatives, creating, supporting and implied the SMEs, NGOs from related areas and possible PPP</p>
<b>II. Science, research and new technologies in culture, tourism, and people to people contacts</b>	ACTION 4: Develop a "Smart Destination Danube"	<p>Develop a "Smart Destination Danube", based on sustainable quality products, including a consistent communication and marketing strategy and a common narrative of the Danube. Collect good territorial evidence on cultural and tourism activities, establish a comprehensive database giving an overview of cultural and tourism activities in the Danube Region. Develop an integrated transnational network of entities (observatories) that will collect, process and analyse data, and exchange and disseminate information on sustainable tourism development on a continuous basis.</p> <p>The networks will be a resource centre for monitoring sustainable tourism impact, based on competent research; digitalize the cultural resources for the preservation of the cultural memory of the Danube Region.</p>

		Promote the development of wellness and different forms of health tourism.
	ACTION 5: Promote and encourage the development of the cultural activities and creative sectors	Enhance cooperation of science and research with the cultural heritage (including underwater heritage), natural heritage and tourism sector; promote strategies, concepts, networking and investments in new technologies/digitalization in the area of culture and culture/multicultural and natural heritage; digitalise the cultural resources for promoting and preserving the cultural identity of the Danube Region, develop and promote intercultural and multicultural activities and exchanges among the Danube basin
III. Valorizing, promoting and protecting the cultural heritage	ACTION 6: Promote cultural heritage in the Danube Region	<p>Build on cultural diversity as strength of the Danube Region, develop new and support existing Cultural Routes, protecting of cultural values; Investigate, revive and promote cultural heritage, traditions, folklore, handicrafts, contemporary arts and other authentic activities of ethnic communities along the Danube Region - showcasing and valorising the region's richness and cultural diversity - for preservation, safeguarding, identity building, intercultural dialogue, multicultural community development, communication and storytelling. Enhance the visibility of rural/local, less visited areas, cultural tangible and intangible heritage sites as well as underwater areas and communicate their value; strengthening cooperation and contacts between people of different origins, encouraging creativity and entrepreneurship and stimulating cultural innovation and ethnic as well as economic development, based on cultural heritage, traditions and cultural tourism.</p> <p>Promoting cultural heritage through knowledge transfer, digitalisation, innovation and technology with the aim of stimulating the competitiveness of the creative economy and promoting cultural tourism. Particular interest will be given to the interpretation of cultural heritage by contemporary arts and new technologies with the aim of developing new narratives</p>



## The Need for a Common Set of Indicators for Measuring the Territorial Impact of Culture and Tourism

Every year, an increasing number of tourists from all over the world visit the Danube Region due to its rich ecological and cultural heritage and the beauty of its destinations. However, in order to preserve the natural and cultural heritage assets upon which the tourism industry depends, to empower local communities and to generate new job opportunities, there is a need for an efficient and effective management of the tourism and cultural sector, capable of continuously measuring and monitoring its impact on territorial development and allowing benchmarking for activities across all Danube destinations.

Currently, in terms of building a comprehensive database giving an overview over the impact of cultural and tourism activities, the Danube Region is facing major drawbacks:

- lack of data availability, particularly at local level
- lack of political commitment and financial investments to ensure long-term monitoring of processes via an integrated and holistic approach
- insufficient skilled and qualified human resources to properly manage measurement and data collection, particularly in compiling and evaluating surveys and questionnaires

So far, it appears that the criteria used in the most relevant existing monitoring systems and tools at the international and European levels are not sufficiently targeted to fully meet the specific needs of the Danube Region. As a result, the coverage and credibility of data collection at the regional and local level is limited.

In addition, it appears that the most pressing challenge is to establish a strong monitoring alliance comprised of relevant industry players. Indeed, in order to effectively monitor the territorial impact of tourism and culture, it is critical to develop a common methodological framework that allows for benchmarking and also provides replicable models that can be used throughout the Danube Region. This aspect is also covered by the ACTION 4: Develop a "Smart Destination Danube" of the revised action plan. The goal of this action is to collect good territorial evidence on cultural and tourism activities, as well as to create a comprehensive database that provides an overview of cultural and tourism activities in the Danube Region.

## Identifying the Right Indicators

For the measurement of tourism and culture impact on territorial development, there is no widely accepted concept that can be used to underpin a commonly used framework. Ideally, the evaluation of territorial impact of culture and tourism should be focused in assessing its main impacts in several territorial development dimensions, which include the following: (i) economic-related elements of territorial competitiveness, (ii) social cohesion-related indicators, (iii) environmental sustainability components, (iv) territorial governance associated aspects, and (v) territorial articulation associated elements as well (Medeiros, 2019).

The current report is going to propose an evaluation and monitoring framework considering the following characteristics of the indicators:





- Indicators must be already existing: the report provides a framework for monitoring territorial development, but it does not collect new indicators
- Selected and used indicators must be open data / free to redistribute
- The indicators should be simple: the concepts conveyed must be simple and easy to understand, and their definition must be widely accepted (a complex abstract indicator raises a wide range of issues of availability, replicability, utility etc.)

As our study aims to identify the impacts of tourism and culture on regional socio-economic dynamics, the territorial level of analysis is not exactly the destination, but rather the regional level (NUTS 2, according to the definitions of Eurostat, which is the territorial level typically used for the application of regional policies, while the NUTS 1 level corresponds to the major socio-economic regions and NUTS 3 to small regions). Although these regions normally include more than one tourism destination, they are institutionally relevant in order to address policy questions related to the integration of tourism dynamics into broader resource management or economic development policies.

EUROSTAT is the primary source of consistent tourism and cultural data for the Danube Region. However, the currently available EUROSTAT data have limited spatial and temporal resolutions, making it difficult to characterize tourism and culture at fine spatial and temporal scales. Tourism is a phenomenon with a large territorial dimension, uneven spatial distribution between and within countries, and localized effects, with many regions being heavily reliant on it. Tourism also has a strong temporal dimension, as it is strongly influenced by seasonality and specific events. To characterize tourism in a given territory, a fine spatial (e.g., local) and temporal (e.g., by season) analysis is required.

Culture and tourism stimulate activities which in turn trigger economic transactions that have an impact on territorial development. In the context of this report, it has been important to identify which economic activities are dependent on tourism and culture, and which economic impacts they generate as measured by the number of local units, people employed and wages. The culture-related sectors of activity were identified based on the final report of the European Statistical System Network on Culture (ESS-net Culture Report 2012<sup>3</sup>) and NUTS 2 data availability.

**TABLE 1. TOURISM AND CULTURE-RELATED SECTORS**

NACE CODE	SECTOR NAME	TOURISM/CULTURE-RELATED
<b>TOURISM</b>		
<b>I55</b>	Accommodation	Mainly
<b>H51</b>	Air transport	Mainly
<b>I56</b>	Food and beverage service activities	Partially
<b>H49</b>	Land transport and transport via pipelines	Partially
<b>N77</b>	Rental and leasing activities	Partially
<b>N79</b>	Travel agency, tour operator and other reservation service and related activities	Mainly
<b>H50</b>	Water transport	Partially
<b>CULTURE</b>		
<b>G476</b>	Retail sale of cultural and recreation goods in specialized stores	Mainly

<sup>3</sup> [https://ec.europa.eu/assets/eac/culture/library/reports/ess-net-report\\_en.pdf](https://ec.europa.eu/assets/eac/culture/library/reports/ess-net-report_en.pdf)

<b>J58</b>	Publishing activities	Mainly
<b>J59</b>	Motion picture, video and television programme production, sound recording and music publishing activities	Mainly
<b>J60</b>	Programming and broadcasting activities	Partially
<b>M71</b>	Architectural and engineering activities; technical testing and analysis	Partially
<b>M73</b>	Advertising and market research	Partially

The availability of data for all NUTS 2 regions poses certain limitations as to the indicators that can be used. The table below summarizes the list of indicators identified at the regional level.

**TABLE 2. LIST OF PROPOSED INDICATORS**

INDICATOR		DESCRIPTION	SOURCE
<b>TOURISM</b>			
<b>Tourism infrastructure</b>	Establishments	Accommodation facilities are main elements of the material-technical base of tourism, since they facilitate the visitors' stay at a destination and constitute a basis for further development of the destination	EUROSTAT
	Bed-places		EUROSTAT
<b>Tourism performance</b>	Occupancy rate	These indicators define the intensity of that region's tourism and economic attractiveness, and are also indicative regarding regions' amenities	EUROSTAT
	Arrivals		EUROSTAT
	Nights spent		EUROSTAT
	Seasonality		EUROSTAT
<b>Business activity</b>	Local units	Indicators concerning business state of the art indicate the sector's economic vitality and potential to satisfy needs of both residents and visitors	EUROSTAT
	Wages and salaries		EUROSTAT
	Persons employed		EUROSTAT
<b>Digitalization</b>	Short-stay accommodation offered via collaborative economy platforms	The collaborative economy had a significant impact on the tourist accommodation market in the past decade. Data on the occupancy of tourist accommodation offered through four major international platforms (Airbnb, Booking, Expedia Group and Tripadvisor) is a good measure of the digitalization in the region.	EUROSTAT
<b>Synthetic indicators</b>	Tourism regional balance	The balance index indicates if the region is a net-sender or net-receiver	ESPON

		of flow and how many disproportions between both directions exist. The value range is from -1 to 1, where zero means perfectly balanced flow, -1 means outflow only and 1 means inflow only.	
	Tourism regional concentration per area	The concentration index is using different versions of the Gini coefficient, the most commonly used measure of concentration, weighted geographically by area. A concentration per area is indicating pure flow concentration, which is a natural consequence of population distribution inequality to some extent.	ESPON
	Tourism regional average distance	An average distance index expresses the distance travelled by the average tourist of the region, arriving to or leaving from the region. It indicates an empirical range of a given region's impact.	ESPON
	Tourism regional weighted intensity	Weighted intensity is a value of the intensity index, related to the population of the given region. It supplements the previous index by the consideration of the context of the demographic size of the region	ESPON
<b>CULTURE</b>			
<b>Infrastructure</b>	UNESCO World Heritage Sites	Heritage sites represent the key attractors to a destination, and hence may be considered drivers for territorial development	UNESCO
<b>Business activity</b>	Local units	Indicators concerning business state of the art indicate the sector's economic vitality and potential to satisfy needs	EUROSTAT
	Wages and salaries		EUROSTAT
	Persons employed		EUROSTAT

		of both residents and visitors	
--	--	--------------------------------	--

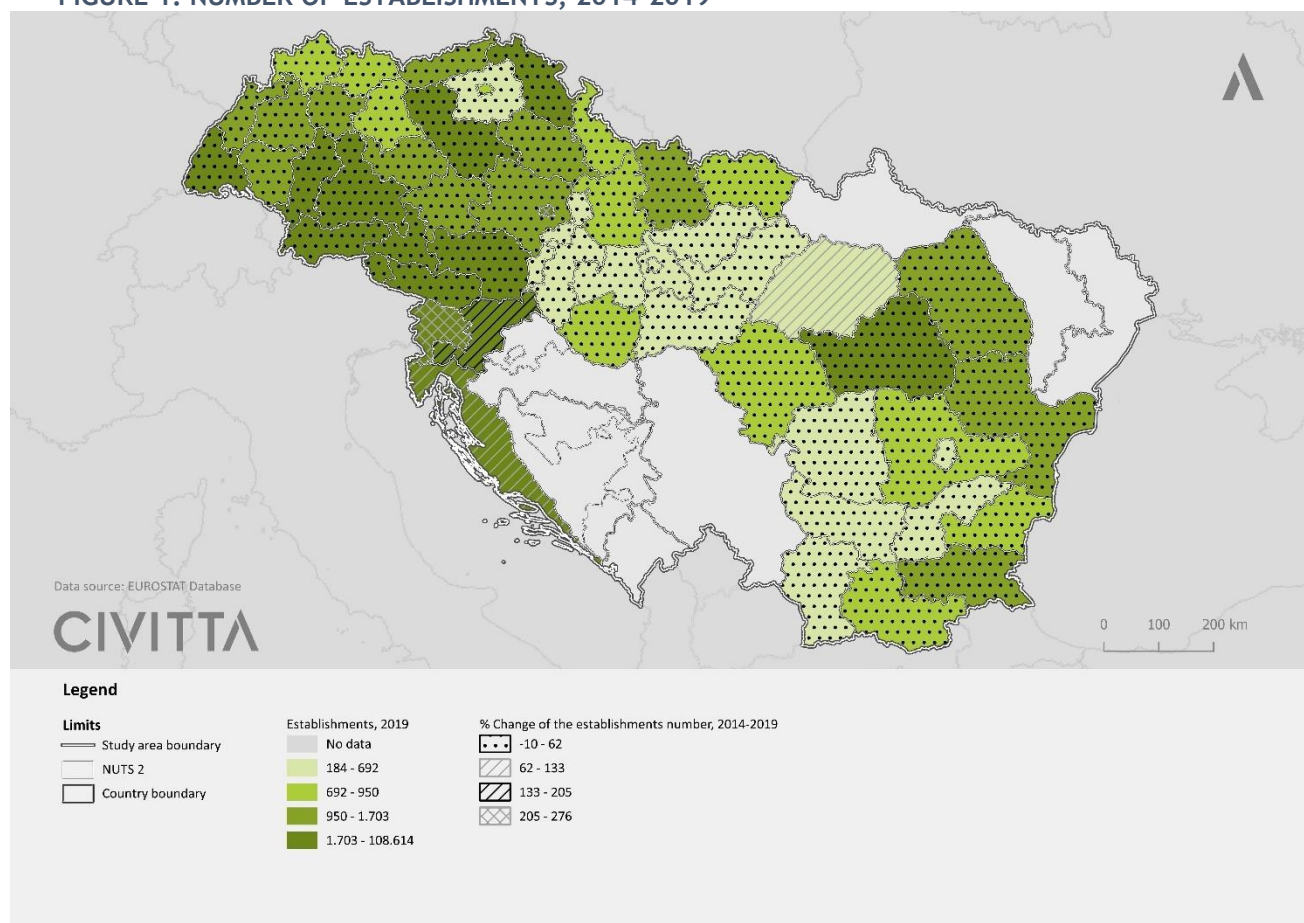
## Description of Indicators and Regions' Performance

### Tourism

#### Tourism infrastructure

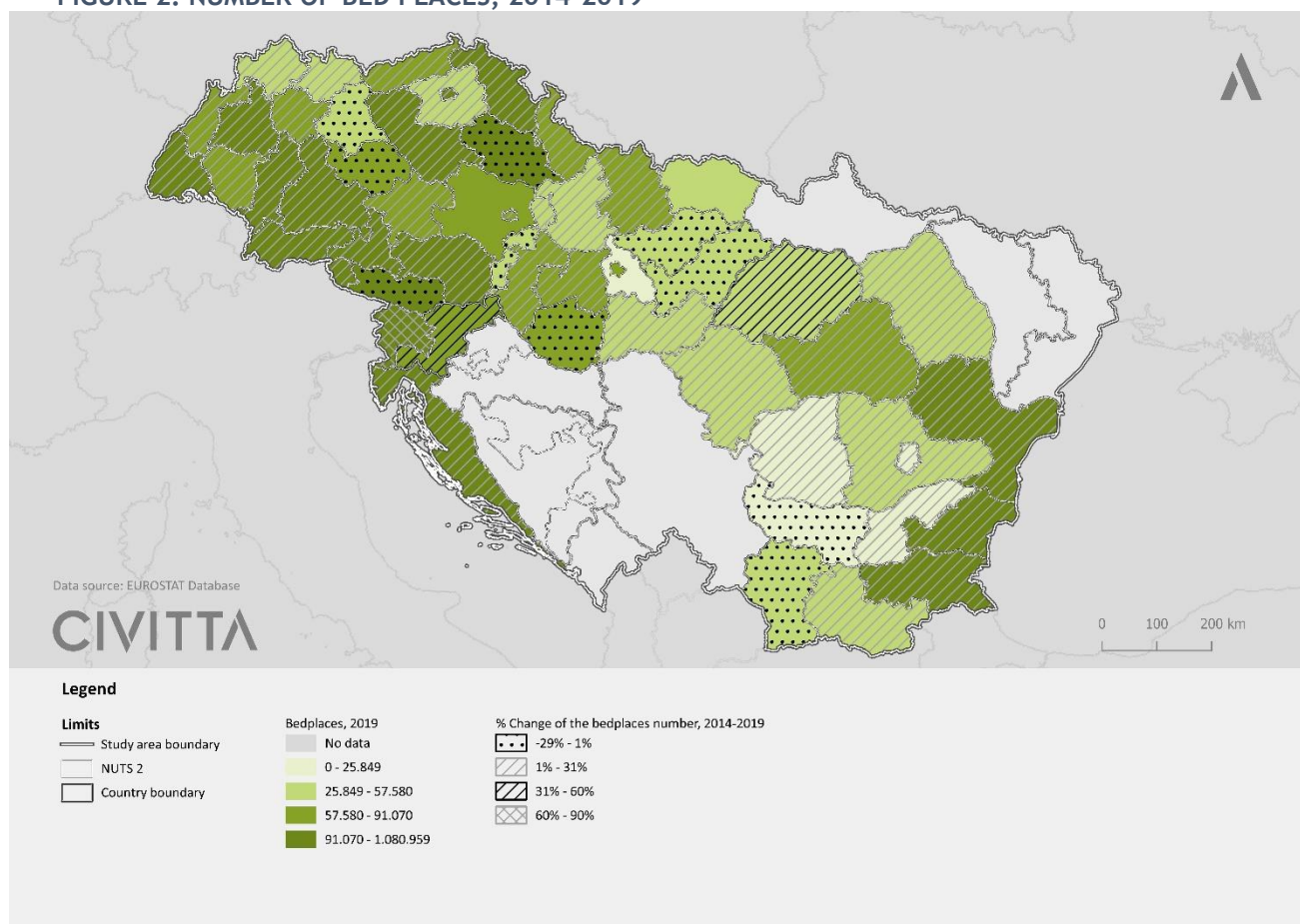
Due to their importance in facilitating visitors' stays at destinations and serving as a foundation for the continued development of those destinations, accommodation establishments are key components of the material-technical foundation of tourism.

FIGURE 1. NUMBER OF ESTABLISHMENTS, 2014-2019



The number of beds serves as a more precise indicator of the material-technical basis of tourism. The Western part of the Danube Region and the Coasts of Romania and Bulgaria have the highest concentration of bed places.

FIGURE 2. NUMBER OF BED PLACES, 2014-2019

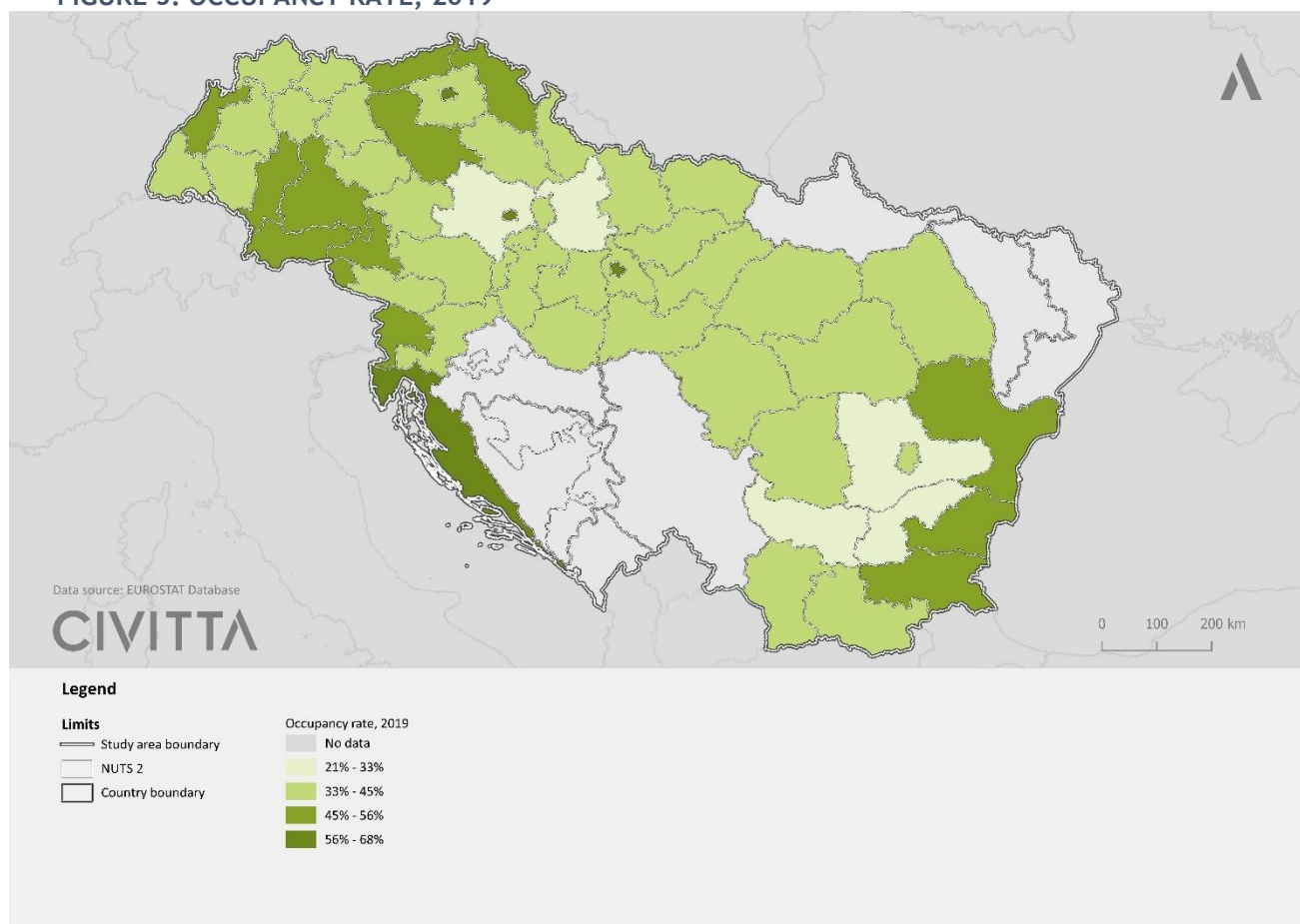


### Tourism performance

High occupancy levels are one of the most desirable goals for managers of accommodation establishments. Coastal regions of Croatia, Romania and Bulgaria have the highest occupancy rates. These regions are also affected by high seasonality.

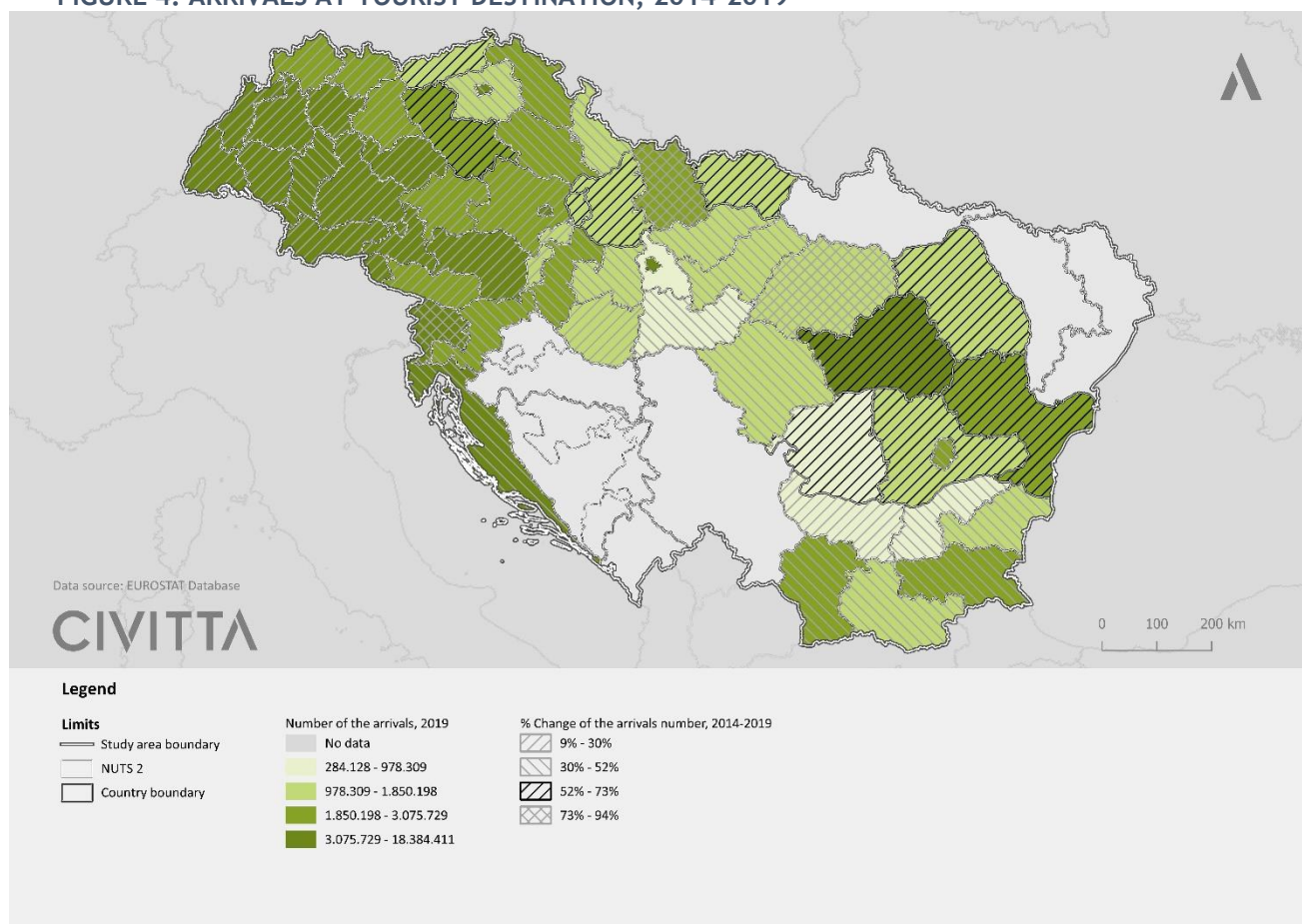


FIGURE 3. OCCUPANCY RATE, 2019



The number of tourist arrivals have increased in the 2014-2019 period in all Danube regions.

FIGURE 4. ARRIVALS AT TOURIST DESTINATION, 2014-2019

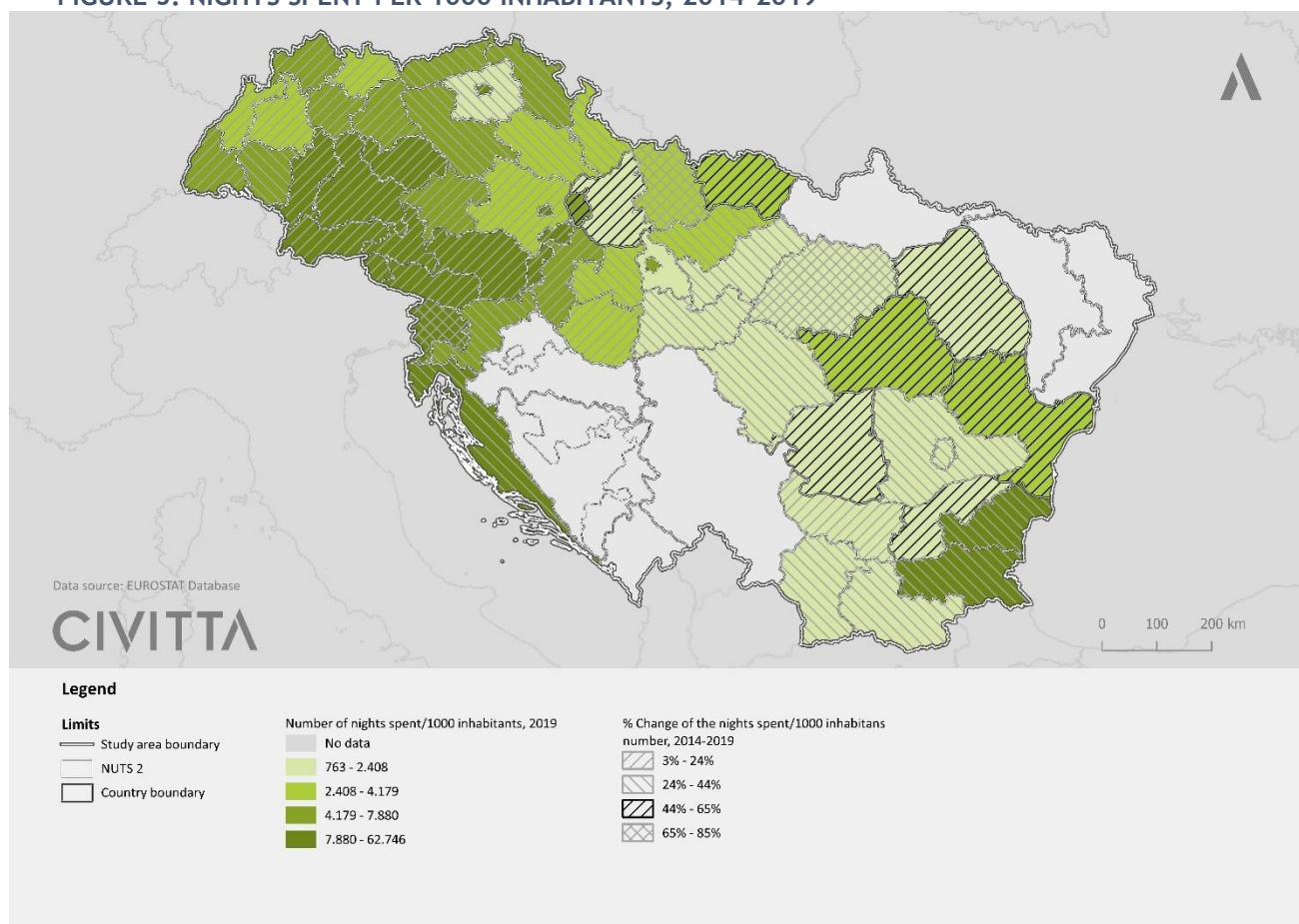


Measuring the number of nights spent is a direct and objective means of assessing success in tourism, with the difference between one year's figure and the next being a transparent and easily conveyed way of showing growth or decline. However, the number of nights spent better reflect the impact of tourism on the economy than other indicators such as visitors' arrivals. Maintaining a competitive tourism offering that attracts longer overnight stays continues to be an important policy consideration and indicator of international market competitiveness.

In the Danube area, the highest level of touristic stays are located in the Alpine region and its foothills, the seashores of Croatia and the Black Sea, as well as the Tatra Mountains.



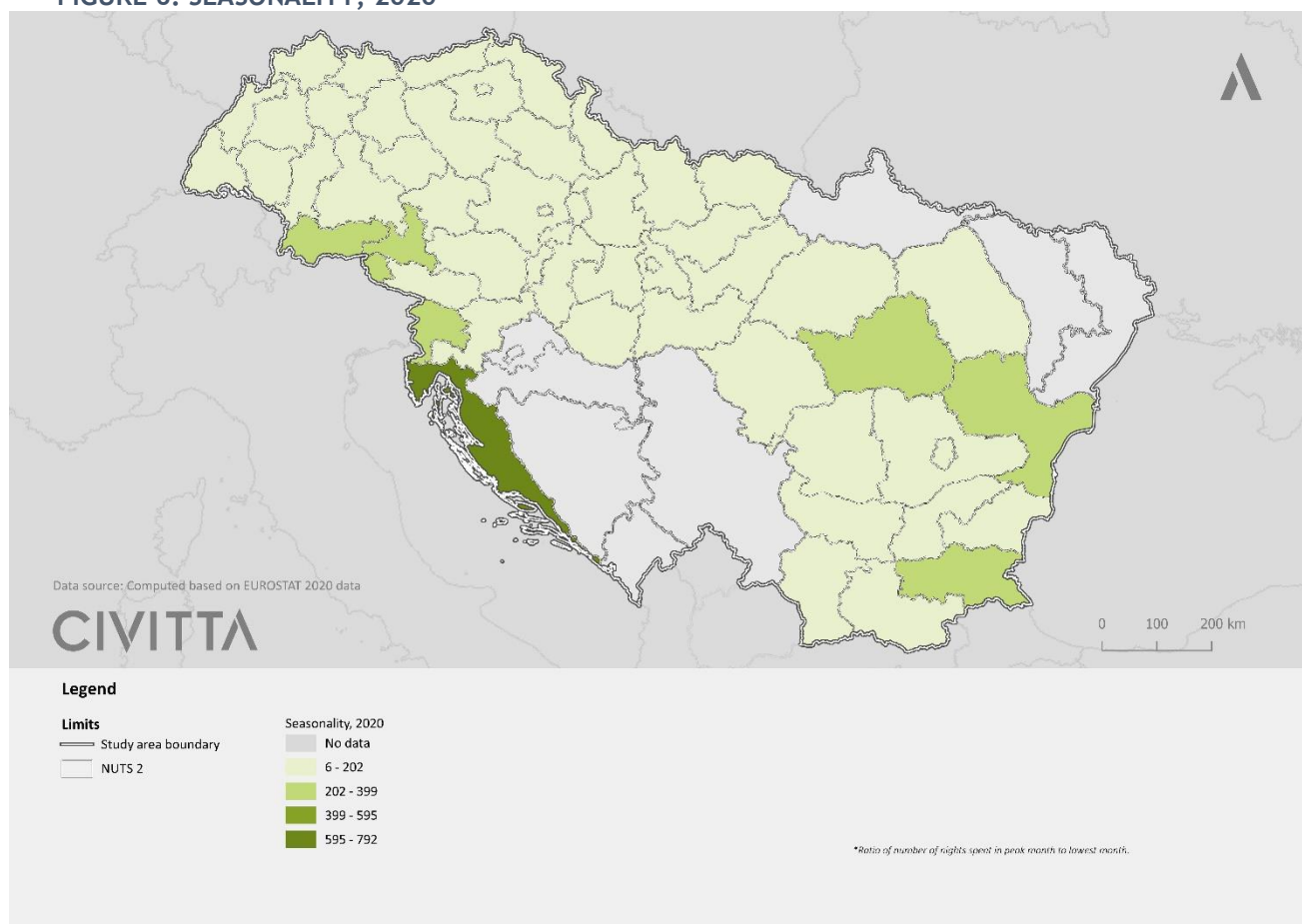
FIGURE 5. NIGHTS SPENT PER 1000 INHABITANTS, 2014-2019



In many locations, a key aspect in understanding the sustainability of tourism activity is the pattern of activity through the year. In our case, this is measured by the ratio of number of tourists in peak month to lowest month. Seasonality is a persistent issue in the tourism industry due to the "uneven nature of demand and the fixed nature of supply fixed in time and space" (Connell et al. 2015). Seasonality is recognized as an important factor in tourism analysis when it creates difficulties in maintaining service quality, an inability to cover fixed costs due to high revenues during peak season but low revenues during low season, and vulnerability to events that may negatively affect tourism activity, such as terrorism, safety issues, and environmental pollution as a result of peak crowding.

Tourism businesses are vulnerable to seasonal changes in market and product demand. As a result of the peaks and troughs in the number of visitors and tourism revenues, appropriate strategies and policies in product development and market diversification for the low season are required in the coastal regions of Croatia, Romania and Bulgaria.

FIGURE 6. SEASONALITY, 2020



### Business activity

Tourism is a comprehensive industry involving many industries such as hospitality, transportation, tourist destinations, travel companies, and more. Socio-economic consequences of tourism are the result of influence and costs of tourists, which stimulate economic activity and create additional businesses and employment.

FIGURE 7. LOCAL UNITS IN TOURISM RELATED ACTIVITIES, 2014-2019

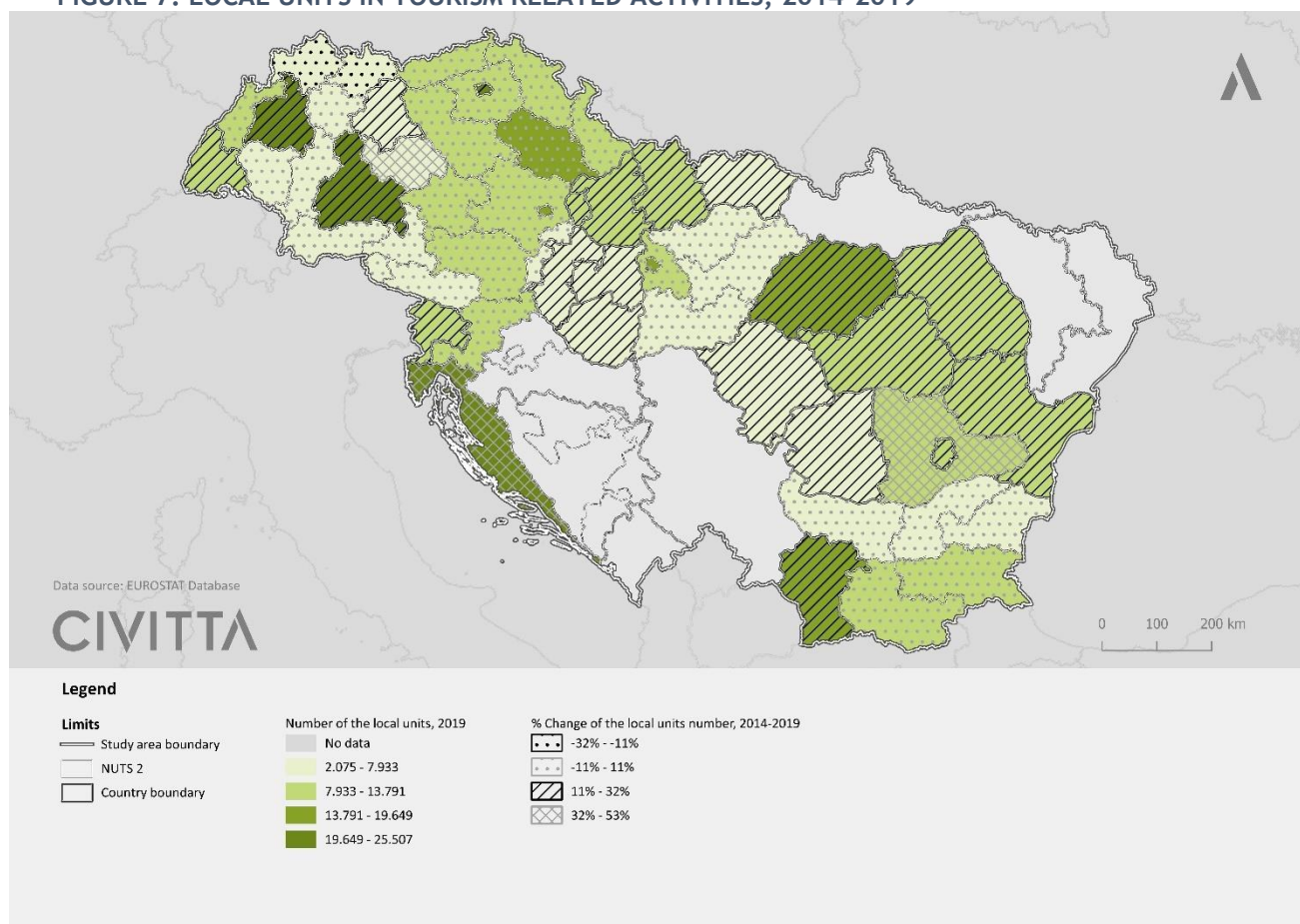
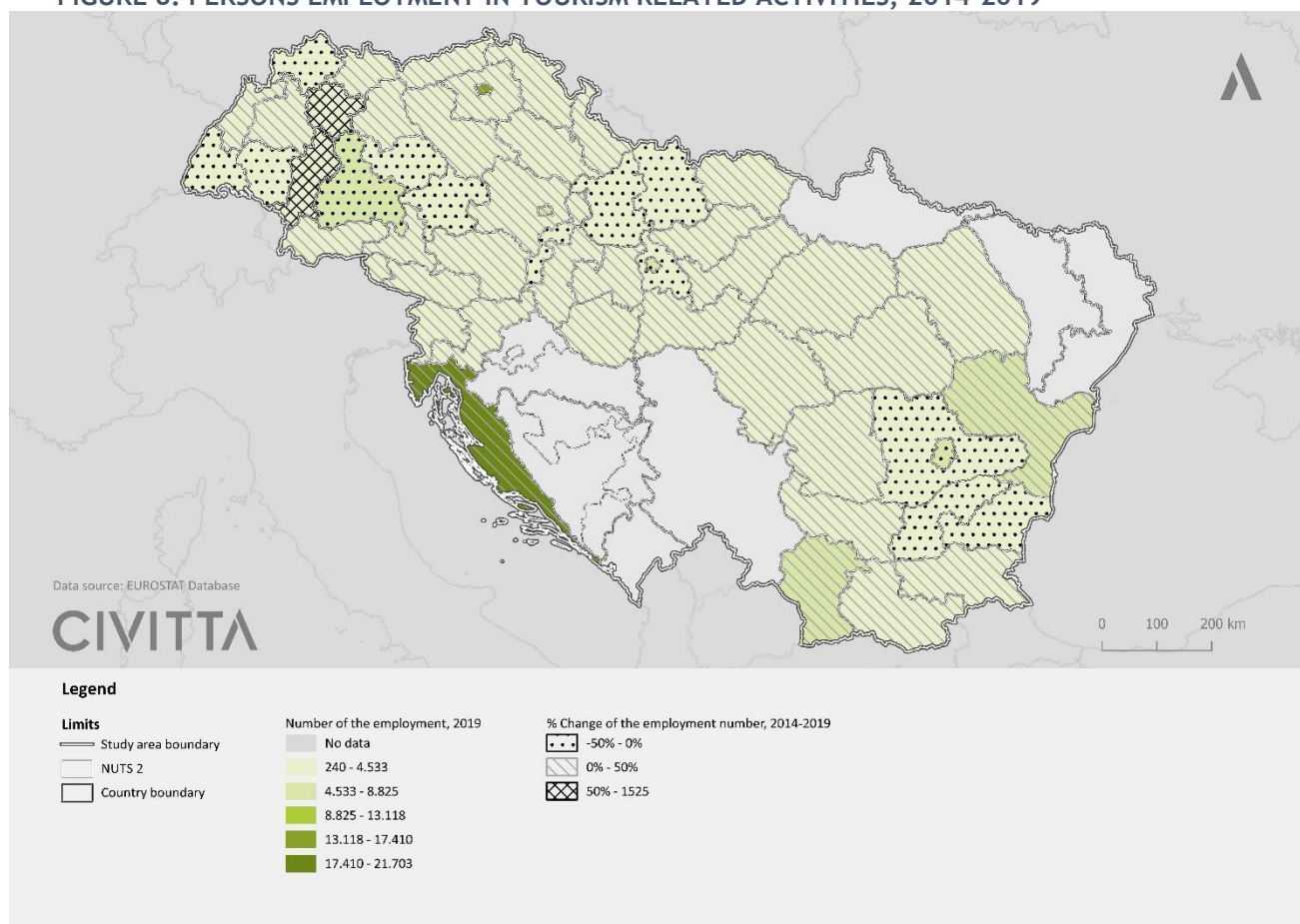




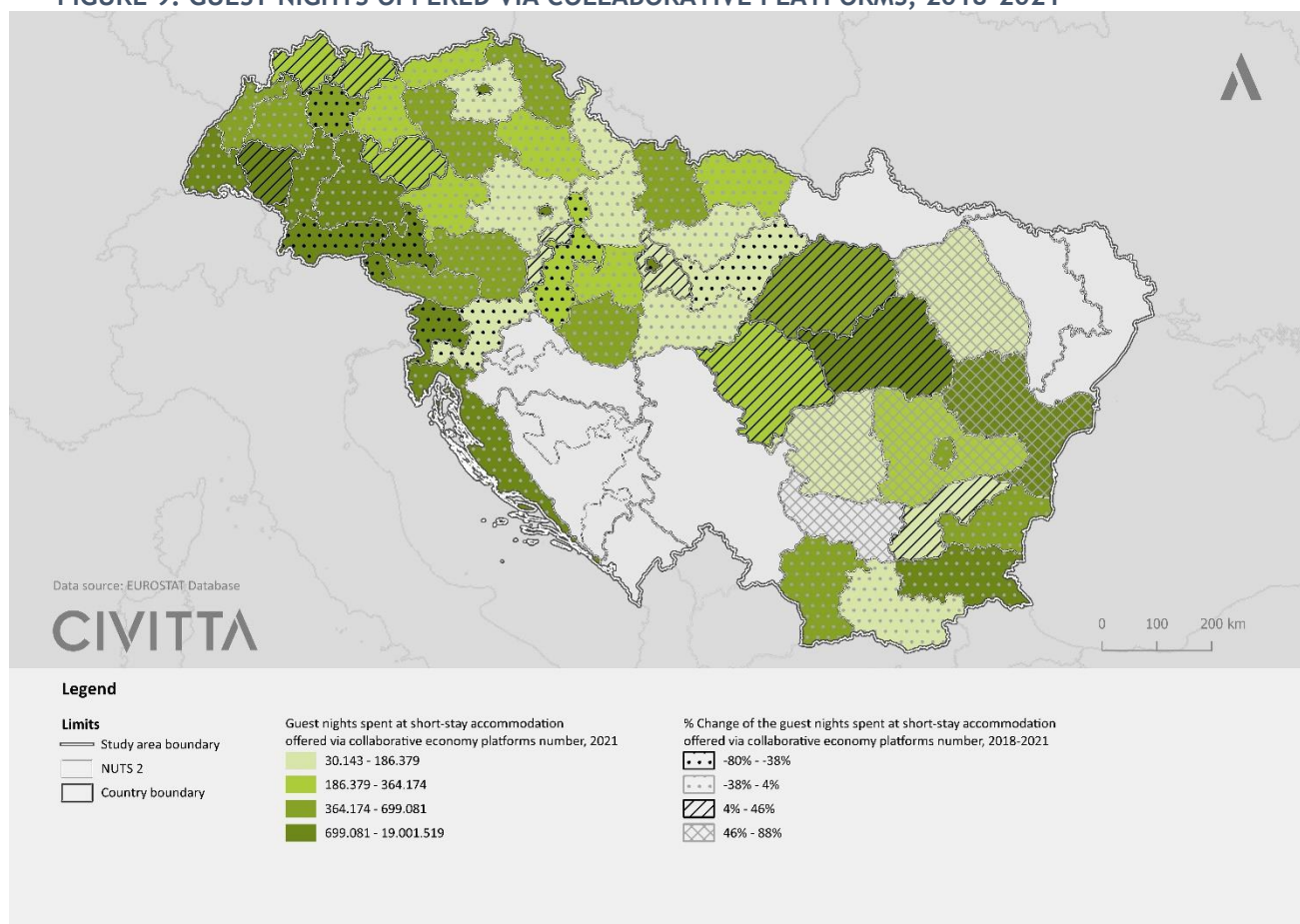
FIGURE 8. PERSONS EMPLOYMENT IN TOURISM RELATED ACTIVITIES, 2014-2019



### Digitalization in tourism

The collaborative economy had a significant impact on the tourist accommodation market in the past decade. Online platforms make it easier for service providers to advertise their rooms or apartments to potential guests and this easier access to the market, for owners as well as for guests, increased the attention for this segment of the market. Four major international platforms (Airbnb, Booking, Expedia Group and Tripadvisor) agreed to exchange data with the European Commission (Eurostat) which led to the development of the *guest nights offered via collaborative platforms* indicator.

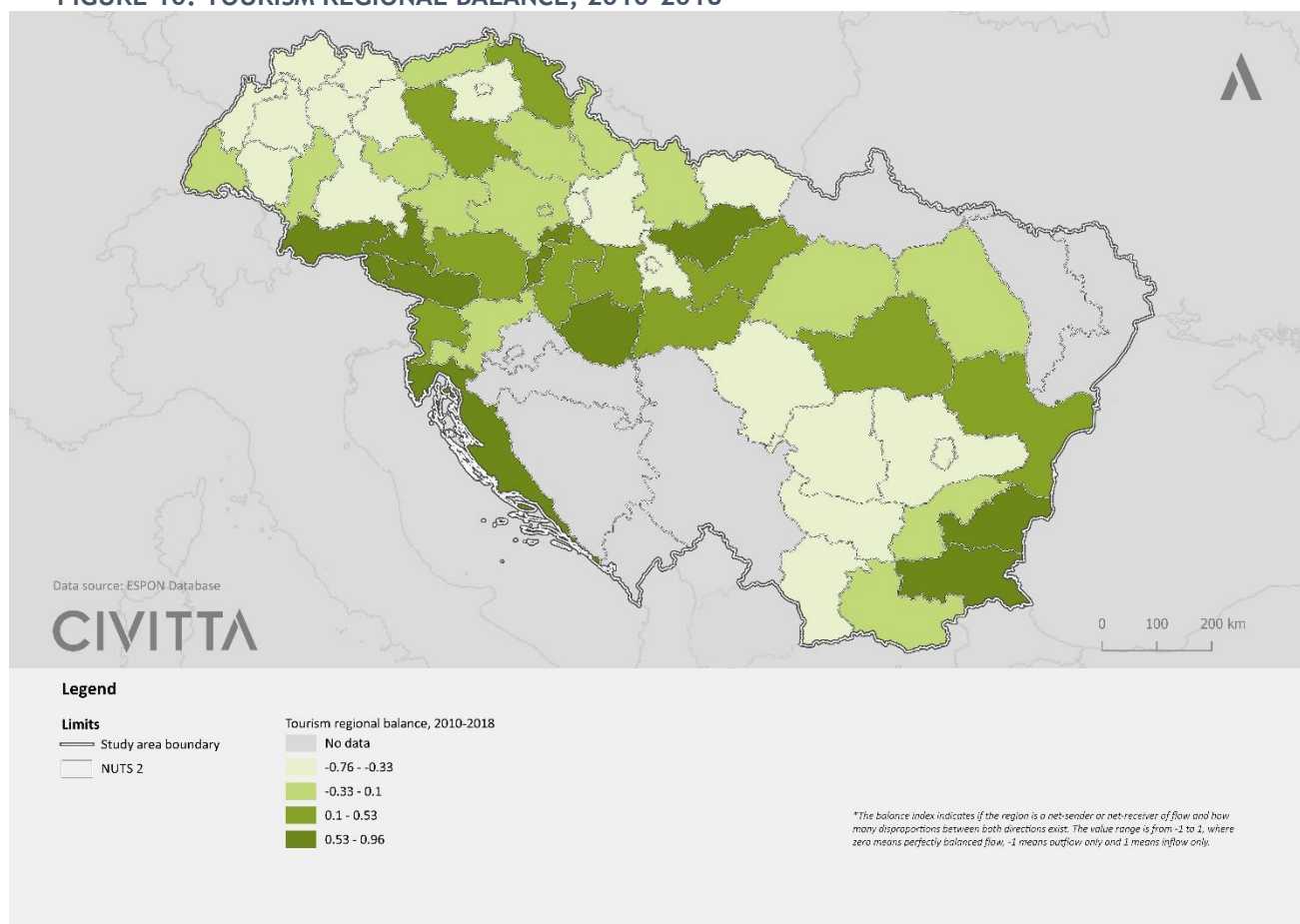
FIGURE 9. GUEST NIGHTS OFFERED VIA COLLABORATIVE PLATFORMS, 2018-2021



### Synthetic indicators

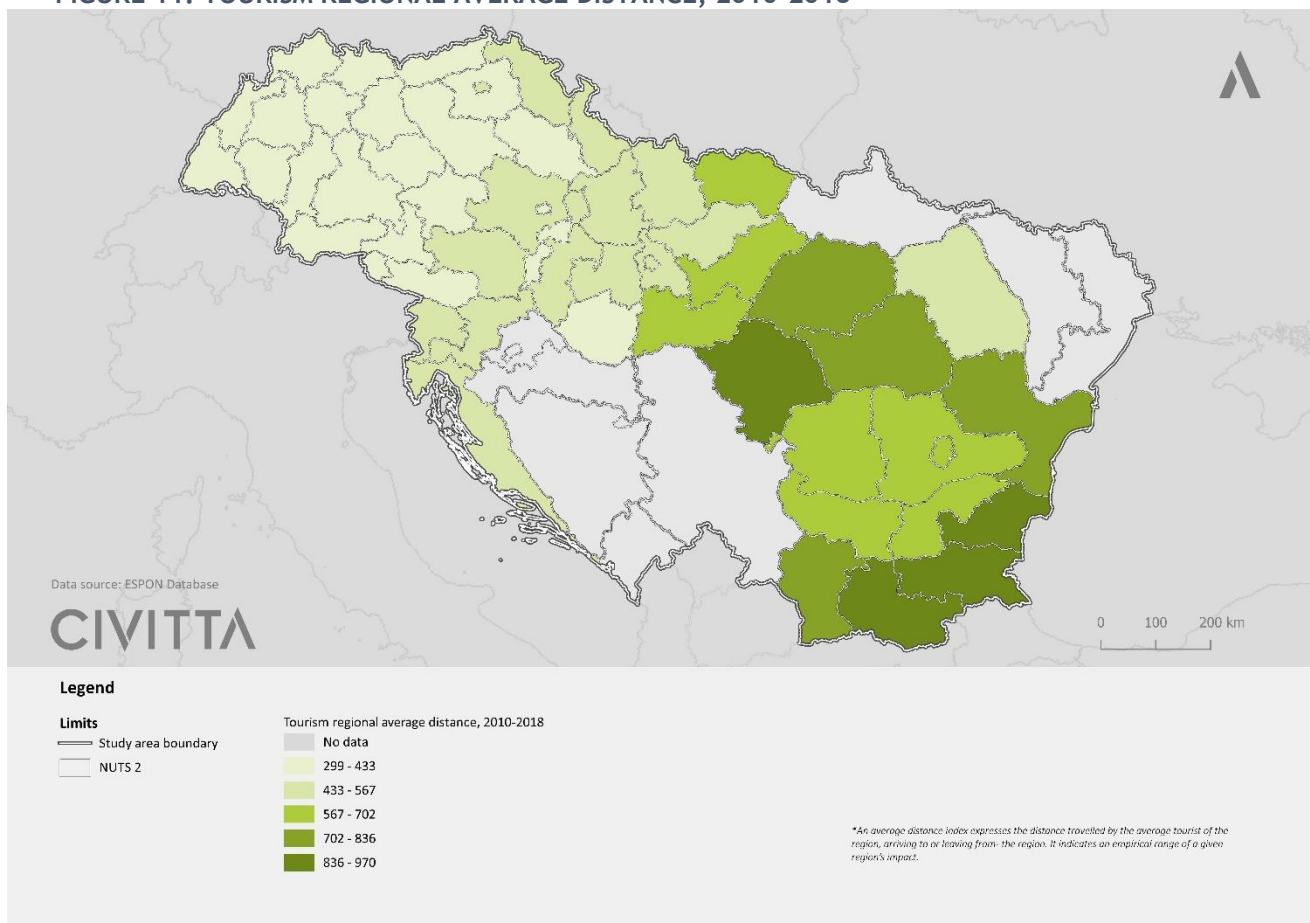
The balance index indicates if the region is a net-sender or net-receiver of flow and how many disproportions between both directions exist. The value range is from -1 to 1, where zero means perfectly balanced flow, -1 means outflow only and 1 means inflow only.

FIGURE 10. TOURISM REGIONAL BALANCE, 2010-2018



An **average distance index** expresses the distance travelled by the average tourist of the region, arriving to or leaving from- the region. It indicates an empirical range of a given region's impact.

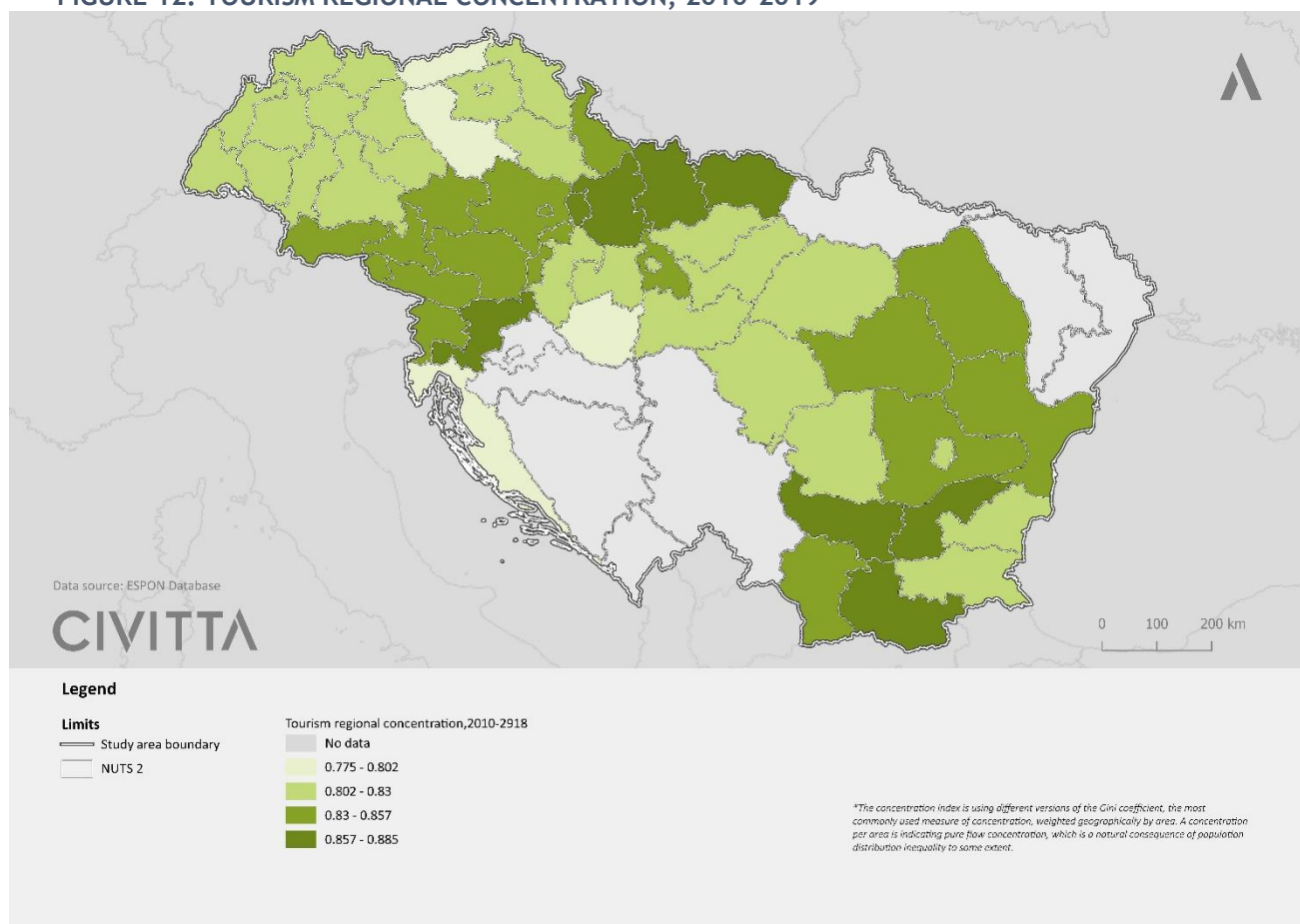
FIGURE 11. TOURISM REGIONAL AVERAGE DISTANCE, 2010-2018



The **concentration index** is using different versions of the Gini coefficient, the most commonly used measure of concentration, weighted geographically by area. A concentration per area is indicating pure flow concentration, which is a natural consequence of population distribution inequality to some extent



FIGURE 12. TOURISM REGIONAL CONCENTRATION, 2010-2019

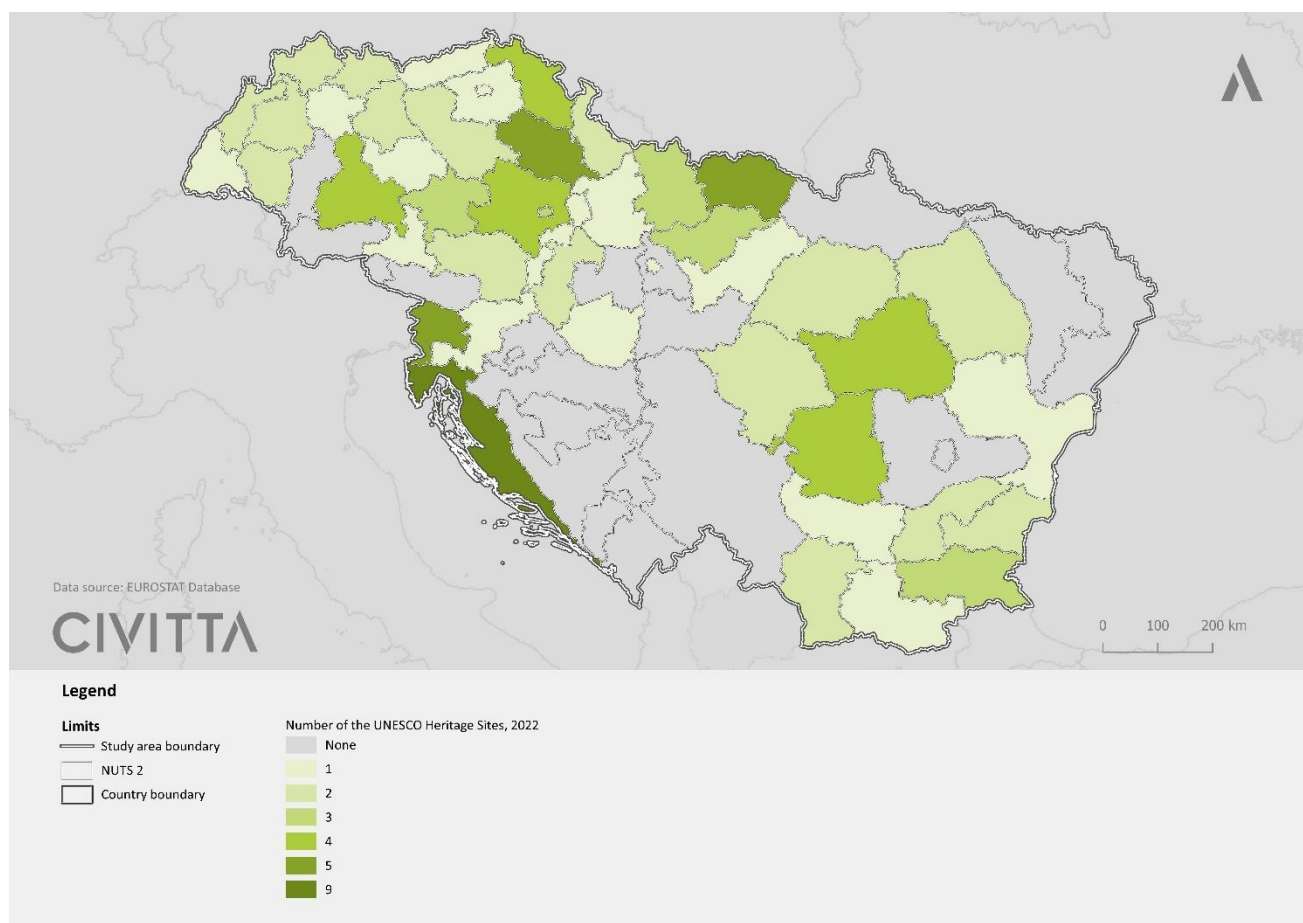


## Culture

### UNESCO Heritage Sites

The Danube Region is rich in UNESCO World Heritage Sites. The highest number of sites can be found in Czech Republic, Austria, Bulgaria and Croatia. The majority of sites are cultural sites (including cultural landscapes). A significant proportion of the areas rich in cultural and natural heritage are having a transnational character, or situated in the vicinity of a state border.

FIGURE 13. NUMBER OF UNESCO WORLD HERITAGE SITES, 2022



### Business activity

Business indicators (number of active local units and employment) point to the sector's economic vitality and capacity to meet needs of both locals and tourists.

FIGURE 14. ACTIVE LOCAL UNITS IN CULTURE RELATED ACTIVITIES, 2014-2019

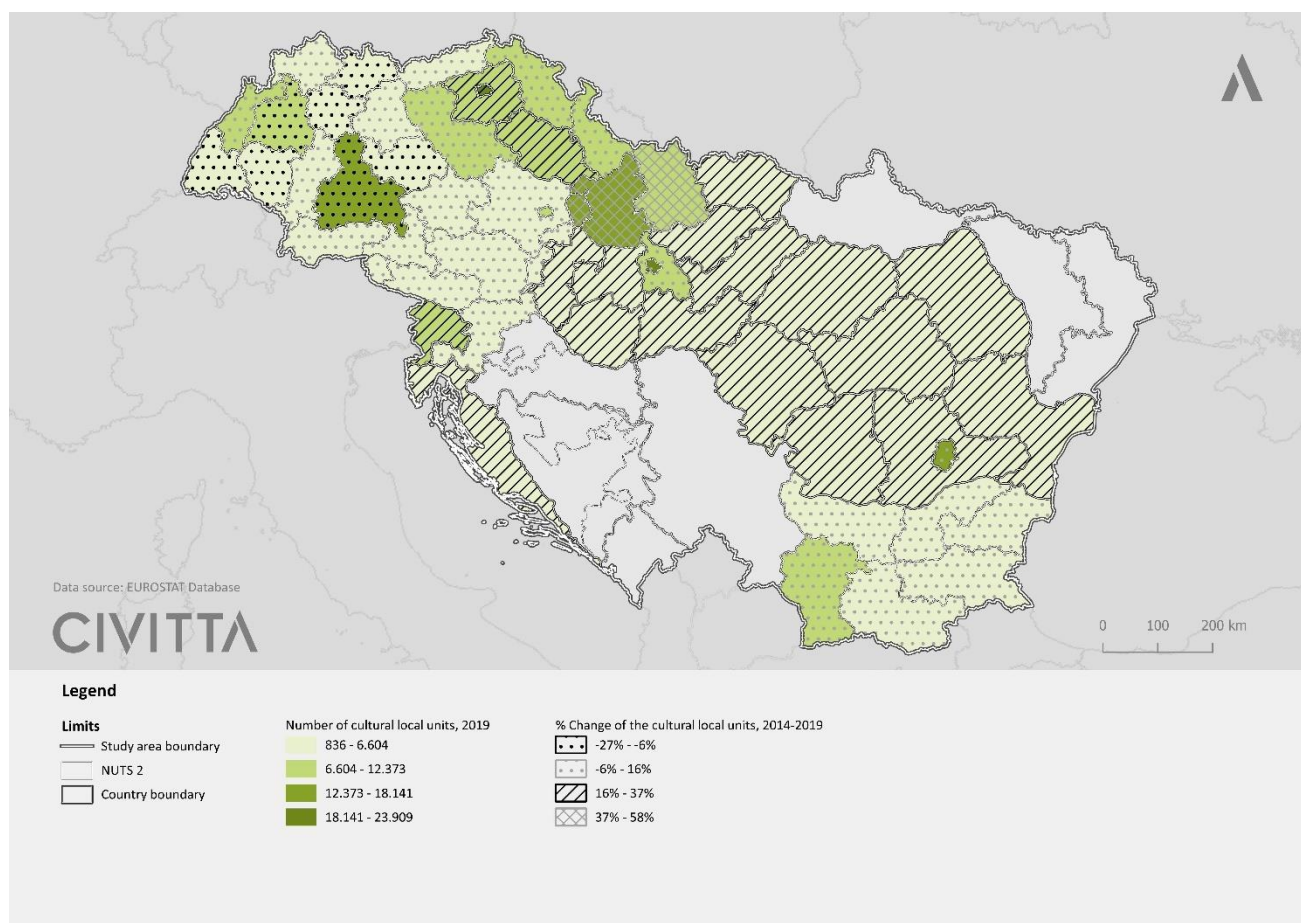
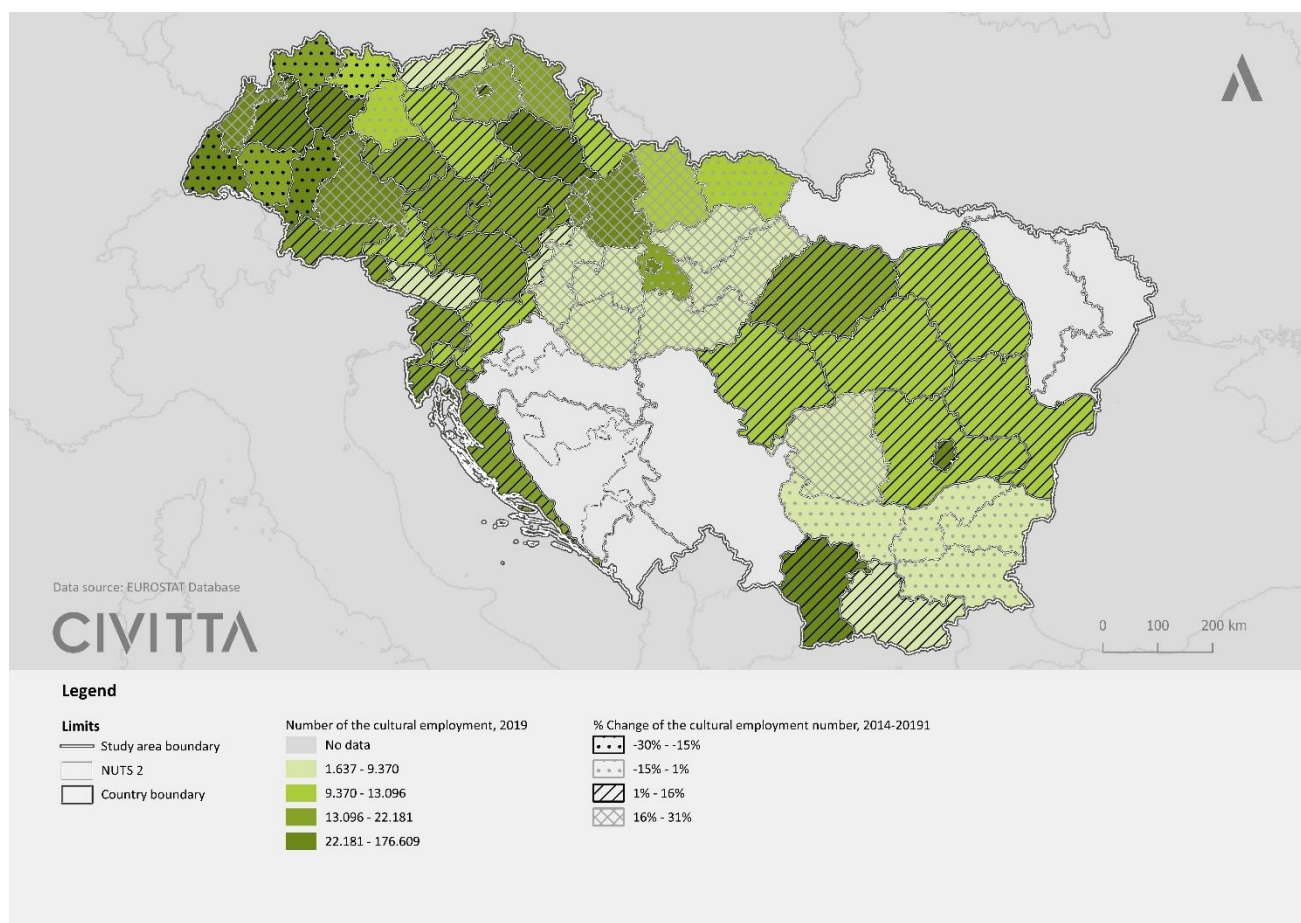


FIGURE 15. EMPLOYMENT IN CULTURE RELATED ACTIVITIES, 2014-2019



## From Limitations Towards a More Comprehensive Monitoring System

A well-functioning monitoring system requires a comprehensive, reliable and relevant database, but the current research has revealed that data is sometimes missing, incomplete, or incomparable for the majority of sectors/activities/territories. As a result, several steps must be taken in order to develop a relevant monitoring system.

Some challenges have been identified in terms of data availability, accessibility, and comparability in relation to the existing tools and indicators for measuring territorial development through Culture and Tourism:

- Significant disparity between activities directly related to culture and tourism and statistical data coverage/availability
- Lack of NACE-codes for some activities (e.g., archaeology completely lacking, no regional data for museums, libraries and archives activities)



- Some activities have partial overlap with the corresponding NACE-code, making it difficult to estimate and isolate the share of related indicators related to culture and tourism
- Some NACE-codes are missing from the Structural Business Statistics (e.g., creative, arts and entertainment activities)
- Limited time coverage: several economic indicators have no time series

## Developing a More Comprehensive Framework of Tourism and Culture Indicators

This section provides a list of potential indicators that could be used in the future to describe the potential impact of tourism and culture on territorial development. In the absence of a framework of indicators for territorial development, the extensive lists of indicators presented below are derived from the literature on sustainable tourism and culture. The sustainability frameworks use the same analytical dimensions (economy, society, environment, governance) which makes it appropriate for the assessment of territorial impact.

Choosing which indicators (and which type, quantitative or qualitative) to use is never an easy task. Most often, authors choose quantitative indicators to more easily quantify impacts of culture and tourism on territorial development. However, as seen in “UNESCO Thematic Indicators for Culture in the 2030 Agenda”, many indicators are qualitative, i.e. subjective, and thus only accessible through empirical research. While quantitative indicators must be accessible, measurable, and calculable for different regions, qualitative indicators can only be verified at the local (site) level.

**TABLE 3. EXTENSIVE LIST OF INDICATORS FOR THE TOURISM SECTOR**

Dimension	Indicators	Explanation
<b>Economic</b>	Number of tourist nights per month	Increasing the economic value of tourism is an important concern for advanced tourism economies to remain competitive. The objective to augment the value of tourism requires an increased collaboration across the tourism value chain which could help the tourism sector at large to overcome its high fragmentation and to support a better use of existing infrastructure, staff and resources.
	Daily spending per tourism	
	Average length of stay of tourists	
	Occupancy rate in commercial accommodation	
	Direct tourism employment as percentage of total employment	
	Percentage of tourism enterprises actively taking steps to source local, sustainable, and fair-trade goods and services	
<b>Social</b>	Number of tourists/visitors per 100 residents	The social impacts of tourism are the effects on host communities of direct and indirect relations with tourists, and of interaction with the tourism industry
	Percentage of men and women employed in the tourism sector	
	Percentage of commercial accommodation with rooms accessible to people with disabilities and/or participating in recognized accessibility schemes	
	Percentage of visitor attractions that are accessible to people with disabilities	

	and/or participating in recognized accessibility schemes	
	Percentage of the destination covered by a policy or plan that protects cultural heritage	
<b>Environmental</b>	Percentage of tourists and same day visitors using different modes of transport to arrive at the destination (public/private and type)	Tourism relies on, and greatly impacts, the natural environment in which it operates. In many cases, the environment is an essential resource that outdoor recreation and ecotourism cannot exist without. Even though many areas of the world are conserved in the form of parks and protected areas, tourism development can still have severe negative impacts from misuse, overuse, and neglect
	Average travel (km) by tourists to and from home or average travel (km) from the previous destination to the current destination	
	Percentage of tourism enterprises involved in climate change mitigation schemes—such as: CO2 offset, low energy systems etc.	
	Waste volume produced by destination (tonnes per resident per year or per month)	
	Volume of waste recycled (percent or per resident per year)	
	Fresh water consumption per tourist night compared to general water consumption per person night	
	The destination has policies in place that require tourism enterprises to minimize light and noise pollution	
	Level of contamination per 100 ml (fecal coliforms, campylobacter)	
<b>Governance</b>	Percentage of the destination with a sustainable tourism strategy/action plan, with agreed monitoring, development control and evaluation arrangement	Governance indicators embrace important decision-making and communication issues that help to sustainable tourism management
	Percentage of tourism enterprises/establishments in the destination using a voluntary verified certification / labelling for environmental / quality / sustainability and / or CSR measures	
<b>Spatial planning</b>	Spatial planning conducted on different levels of management - national, regional, and local (Yes/No)	Spatial planning of tourism is a component of the overall development plans whose aims and tasks are complementary with the efforts for the country development as a whole. It is aimed to organize, arrange and equip certain spatial entities in the function of their marketing possibilities, available tourist

		potential and socioeconomic goals.
--	--	------------------------------------

TABLE 4. EXTENSIVE LIST OF INDICATORS FOR THE CULTURAL SECTOR

DIMENSION	INDICATORS	POTENTIAL SOURCE	EXPLANATION
<b>Presence of cultural resources</b>	Number of monuments, protected natural heritage sites, intangible cultural heritage, World Heritage Sites, elements inscribed on the UNESCO Intangible Cultural Heritage Lists, international cultural events (festivals, exhibitions)	Country inventory, UNESCO	Both, natural and cultural (tangible and intangible) heritage, as well as cultural events represent the key attractors of a destination, and hence may be considered drivers for territorial development
<b>Availability of cultural infrastructure</b>	Number of museums/ theatres/ public libraries per 1 000 inhabitants	Official statistics	Number and variety of cultural institutions make the milieu for not only local community development, but also serve as an attractor for visitors and consequently a driver of tourism and further territorial development
<b>Cultural business</b>	Number of cultural and creative enterprises, artists, craft producers	Official statistics	Indicators concerning business state of the art indicate the sector's economic vitality and potential to satisfy needs of both residents and visitors
<b>Employment</b>	Number of cultural jobs per 1 000 population	Official statistics	Indicators concerning employment state of the art, the same as with the business-related indicators, show the sector's economic vitality and are considered to be its drivers
<b>Cultural governance</b>	Institutional framework (evidence of entities with ministerial/ directorial status at national level, local authorities responsible for culture, presence of a culture based regulatory	National and local sources: administrative data, specific surveys, and information systems for culture	These indicators create institutional framework for better governance of not only the cultural sector but of all the other associated sectors including tourism, thus creating preconditions for territorial development



	framework, examples of initiatives to enhance culture's impact)		
	Policies and financial framework (evidence of cultural management plans or other strategic documents, measures to support job creation in culture related sectors, to encourage the growth of SMEs, general public expenditure on culture per capita)	National and local sources	These are all policy measures (mostly economic/financial) aimed at stimulating production and efficiency of all the subjects (private and public) involved in creating cultural and creative products and services serving both residents and visitors and contributing to territorial development
<b>Inclusion and participation</b>	Cultural attractions/ events/ museum visitors	Official statistics	The higher the interest for visiting different cultural institutions /attractions, the more cultural production and the better financial effects are enabled in a destination. These measurements are also indicative for monitoring people to people contacts and communication.
	Evidence on active participation of minorities in cultural life, evidence of specific measures to promote active participation of communities, groups	National and local sources: administrative data, specific surveys and information systems for culture when available	By introducing measures to promote different ways of stakeholders' participation, an environment is created for enhancing co-creation process in culture and sustainable territorial development. Moreover, by actively involving minorities in the community's cultural life, the potential for the tourist attractiveness enhancement of the destination grows significantly. Lastly, these measurements are also indicative for monitoring people to people contacts and communication.

Source: Adapted after Petrić et al., 2020

## Territorial Impact Assessment

A proper territorial impact assessment includes more than mainstream socioeconomic development analysis, with bits and pieces of performance elements in the mix. Resting upon the holistic notion of territory, which encompasses multiple analytic dimensions (economy, society, environment, governance, spatial planning), territorial impact assessment is the most complex policy evaluation procedure. Indeed, policy evaluation procedures are now deeply embedded in territorial development strategies and processes at the sub-national, national, and transnational levels.

The spatial component of developments is the main focus of territorial impact assessment. ESPON has been particularly active in creating various methodologies and approaches for evaluating the territorial impact of policies. In the beginning, the emphasis was frequently on ex post impact assessments, but later territorial impact assessments started to become more future-oriented by shifting the focus to ex ante impact assessments and combining quantitative modelling approaches with qualitative as well as participatory approaches. In short, the methodology that emerged aids in determining whether a policy will have positive or negative, intended, unintended, or even unknown territorial impacts (Meideiros, 2020).

An interactive web tool called the ESPON TIA Tool can help practitioners and policymakers identify ex-ante potential territorial effects of new EU laws, policies, and directives. The "ESPON TIA quick check" methodology serves as the foundation for the ESPON TIA Tool. With a set of indicators describing the sensitivity of European regions, it combines a workshop setting for identifying systemic relationships between a policy and its territorial consequences. By examining all pertinent indicators in a workshop setting, it aids in guiding a professional discussion about the potential territorial effects of a policy proposal from the EU.

The outcomes of the expert-led discussion are assessments of the potential territorial effects of EU policies taking into account various thematic areas (economy, society, environment, governance) for a variety of indicators. ESPON TIA Tool receives these results as input. The web tool converts expert assessments of exposure and the various sensitivities of regions into maps that illustrate the potential territorial impact of EU policy at the NUTS3 level. These maps act as a jumping off point for a more in-depth discussion of the various effects of a specific EU policy on various regions. As a result, the workshop's experts contribute significantly to this quick analysis of a policy proposal's potential territorial effects.

Territorial impacts are defined through the exposure and sensitivity of a territory towards a specific component:

- **Exposure:** taking different components of the foresight topic as starting point, exposure is determined by asking: To what degree is a region/territory likely to be (positively or negatively) affected by the change?
- **Sensitivity:** taking regional characteristics as starting point, sensitivity is determined by asking: To what degree will regional development be affected? What is the intensity of impacts due to specific regional characteristics and endowments?

To ensure that the current Action Plan for the PA3 is tailored to the needs of those affected by its implementation, it must be based on a comprehensive assessment of its impact that considers the territorial component. Recognizing and taking into account the territorial context and specificities of a given territory is essential for success when designing policy interventions.



In addition to assessing current PA3 actions, the ESPON TIA Tool could be used to assess actions suggested by stakeholders, as highlighted in Report 2.1. “Consultation report on measures for increasing the resilience of Culture and Tourism”:

- Develop specific measures on national and local natural heritage sites to reduce the exposure and vulnerability of people and ecosystems to the risks and hazards of climate changes
- Develop specific policies/measures to take into account traditional and local community knowledge in assessing the possible impact of climate adaptation on heritage elements and practices
- Develop measures for performance and strategic behaviour of certain types of businesses in the destination (hotel structures, trade fairs, congress facilities, cultural organizations etc.)
- Develop measures for performance and strategic behaviour: economic-financial analysis, profitability, investments made and planned, etc.
- Removal of bureaucratic barriers to local business
- Implement stimulus recovery programs for tourism on rebuilding tourist locations to be more sustainable, which would create jobs in the rebuilding as well as enhance its attraction
- Other measures

## References

- Connell, J., Page, S. J., Meyer, D. 2015. Visitor attractions and events: responding to seasonality. *Tour Manage* 46:283-298
- Dimitriu, Sabina & Elisei, Pietro & Barborič, Blaž & Udvari, Beata. (2018). TERRITORIAL ATTRACTIVENESS MONITORING PLATFORM: A HANDBOOK FOR POLICY PLANNERS.
- Lapeyre, R. 2011. The Grootberg lodge partnership in Namibia: Towards poverty alleviation and empowerment for long-term sustainability? *Current Issues in Tourism* 14(3): 221-234.  
doi:10.1080/13683500.2011.555521
- Medeiros, E. (ed.). 2020. Territorial Impact Assessment. *Advances in Spatial Science*, Springer, number 978-3-030-54502-4.
- Medeiros, E. 2019. Spatial Planning, Territorial Development, and Territorial Impact Assessment. *Journal of Planning Literature*. 34(2):171-182. doi:10.1177/0885412219831375
- Notarstefano, G., Volo, S. 2012. Measuring the impact of tourism: a 'territorial' approach, *The Italian Journal of Economic, Demographic and Statistical Studies*, SIEDS Societa' Italiana di Economia Demografia e Statistica, vol. 66(2), pages 235-247.
- Petrić, L., Mandić, A., Pivčević, S., Škrabić Perić, B., Hell, M., Šimundić, B., Muštra, V., Mikulić, D., & Grgić, J. (2020). Report on the most appropriate indicators related to the basic concepts. Deliverable 4.1 of the Horizon 2020 project SmartCulTour (GA number 870708), published on the project web site on September 2020: <http://www.smartcultour.eu/deliverables/>