



# HORIZON 2020

## **IMPACTOUR**

### **IMproving Sustainable Development Policies and PrActices to assess, diversify and foster Cultural TOURism in European regions and areas**



## **D1.1 - Report on Cultural Tourism Leading to Sustainable Economic and Social Development Final**

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### **Abstract**

The deliverable analyses how cultural tourism can lead to sustainable economic and social development. The sources of economic growth and economic development are discussed, paying special attention to the qualitative difference of economic activities, to the importance of clustering and systemic interactions between industries, and to the impact of ICTs and globalisation. Key impact assessment frameworks used to analyse the economic impact of tourism are analysed and synthesised with cultural tourism specific aspects. The report is based on a structured literature review covering both academic literature as well as policy reports, and on empirical data gathered from the tourism development organisations in Europe. The report concludes with implications for the IMPACTOUR methodology and data sources.

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## Project Partners



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## **Executive Summary**

Cultural tourism, which accounts for some 40% of all the international tourism arrivals, has been recognized as a driver of growth for jobs, economic development, intercultural understanding, and social development in Europe. The objective of the current Deliverable is to analyse how cultural tourism can lead to sustainable economic development, a precondition for social development, and what are the suitable methods and data sources to measure the economic impact of cultural tourism. Other Deliverables take a holistic approach to the sustainable development of cultural tourism; covering social, cultural, environmental, and other aspects [1], and the governance of cultural tourism [2]. The aim of the Deliverable is to develop insights and guidelines regarding the IMPACTOUR methodology and data sources which will be explored in further Work Packages.

In the preparation of the Deliverable, an extensive literature review was carried out. The objective of the literature review was to identify the most relevant, influential, and up-to-date academic and policy-relevant sources dealing with theoretical and empirical impact assessments of cultural tourism, and the economic impact of cultural tourism. Empirical feedback was also gathered from the regional tourism development organisations (included directly or indirectly, as external piloting partners, in the consortium). 15 IMPACTOUR pilots participated in the study and reported how they monitor and measure the economic impacts of cultural tourism and what challenges they have met in the process. The findings were discussed with the project partners and elaborated further on the basis of the feedback.

Based on the findings of the research, cultural tourism can bring direct economic benefits resulting from the inflow of tourists and the business activities of tourism enterprises. The demand perspective associated to this refers to the economic consequences of all activities undertaken by a visitor in relation to a trip, not being limited to those considered typical tourist activities (e.g. sightseeing). The supply perspective refers to the role of tourism enterprises in the supply of goods and services.

The broader economic impacts of cultural tourism were assessed by looking at its indirect impacts (focusing on cultural tourism investment and impacts on cultural tourism suppliers) and induced impacts (spending by employees directly or indirectly working for cultural tourism sectors). To assess total economic impact of cultural tourism it is important to understand the relationships between the trade, production and consumption of cultural tourism services, the share of domestic and foreign value added in tourism exports, the benefits that tourism creates for national economies, and the forward and backward linkages between tourism and other industries. Contemporary economic development discourse also emphasises that all economic activities are not the same in terms of their potential to foster an increase in living standards. What is also important is the clustering and systemic interactions in increasing and capturing the economic value added of various economic activities. Also, global value chains have emerged and gained in importance.

Furthermore, given the emergence of new platform-type travel and tourism services (e.g., Uber or Grab ridesharing and AirBnB accommodation and experiences), assessing the effects of related monetary and non-monetary transactions is becoming more important.

The research identified five commonly used tourism-related economic impact assessment frameworks:

- European Tourism Indicator System (European Commission)
- Tourism Satellite Account (UNWTO)
- Travel & Tourism Competitiveness Index (WEF)
- Travel & Tourism Economic Impact Research (WTTC)
- Tourism Trade in Value Added (OECD).

While two of them – European Tourism Indicator System (ETIS) and Tourism Satellite Account (TSA) – provide an instrument for measuring the direct economic effects of tourism, the methodologies of WTTC/Oxford Economics and OECD also assess the indirect and induced economic effects that occur due to linkages between different productive activities and industries. These linkages are important to measure since they are crucial in maximising the benefits of (cultural) tourism. The OECD's Tourism Trade in Value Added is a newly proposed framework for analysing the role of tourism in global value chains in light of increasing globalisation and international fragmentation of the production and consumption of tourism. Most of the reviewed analytical frameworks are limited to measuring monetary transactions, whereas the TSA also encompasses the value of non-monetary transactions related to tourism consumption.

One of the major drawbacks of the existing frameworks is that they have been designed to aid the measurement of tourism impacts at the national level, whereas in practice a lot of tourism planning and development happens at the regional or local level. In order to supplement national-level impact assessment frameworks, several countries and regions are developing sub-national approaches to assessing tourism impacts. Many of these rely on versions of the Regional Tourism Satellite Accounts (RTSA), which in itself is still a developing methodology.

As input to this report, 15 IMPACTOUR pilots described their impact assessment practices, giving examples of how they assess the economic impacts of cultural tourism in their region. They also highlighted the barriers and challenges of monitoring and evaluating the impacts of cultural tourism.

Based on the pilots' self-assessment, economic development is a first priority when developing tourism strategies, followed by environmental and social goals. The importance of environmental goals has considerably increased in the recent years. In many cases, pilots have a general understanding of what they want to achieve regarding economic impact but have not set specific time-bound economic goals and indicators.

Pilots that assess the economic impacts of tourism in their region rely generally on indicators such as tourist arrivals and overnight stays and/or expenditures by tourists. While the frameworks identified are considered useful for developing an understanding of the 'bigger picture' and for the purposes of international comparison, one of the main limitations of these frameworks is that the data are often collected at the national level and not broken down to the local or regional level. Another limitation is the generic nature of the frameworks, i.e. they are not adapted to monitoring and assessing the impacts of cultural tourism as a specific type of tourism.

Pilots generally find it rather challenging to assess the economic impacts of cultural tourism. The main challenges concern five broad categories of issues: 1) the definition of cultural tourism, 2) lack of common impact assessment frameworks adapted to the particularities of cultural tourism, 3) lack of relevant data, 4) stakeholder multiplicity and coordination issues, and 5) lack of capacity and resource limitations.

Regarding COVID-19, feedback from cultural tourism experts and the participating regions indicated that travel and tourism are the sectors that have been particularly hard hit by the crisis and economic monitoring and impact assessment is more important than ever. Governments need information regarding the cultural tourism sector and companies in devising policy instruments, and there is potential for learning from each other in Europe regarding the instruments that work the best. While in recent years there has been distrust of 'digital' because it has been seen as a threat to the authenticity of real heritage, COVID-19 has triggered an extraordinarily rapid adoption of digital technologies to ensure tangible and intangible heritage maintains visibility during lockdown, if not income. It is too early to tell, but behaviour is expected to change, within which tourism agencies and tourists will make more use of digital alongside 'real' experiences.

For IMPACTOUR Methodology it is recommended to use Regional Tourism Satellite Accounts (RTSA) as a starting point for further work, while complementing it with the elements of other frameworks (such as value-added of cultural tourism and the role of tourism in global value chain), paying also particular attention to measuring the impacts of new platform-type travel and tourism services. The feasibility of such approaches and accessibility of data should be addressed in the forthcoming Work Packages in co-operation with the piloting regions.

Statistical and official information on tourism currently comes from national-level statistical offices and tourism agencies, disaggregated to the regional level, and/or from the respective regional bodies. These bodies seem to be most informed also on alternative and emerging sources of information. These organisations are important stakeholders and should be involved in the development of the methodology (and not only in the dissemination stage) as it adds to the relevance and sustainability regarding the results.

## **Table of Contents**

0	Introduction.....	1
0.1	IMPACTOUR Project Overview.....	1
0.2	Deliverable Purpose and Scope.....	1
0.3	Target Audience.....	3
0.4	Document Structure.....	3
0.5	Document Status.....	3
1	Tourism, Cultural Tourism and Competitiveness.....	4
2	Research Methodology.....	8
3	Key Tourism Related Economic Impact Assessment Frameworks.....	10
3.1	European Tourism Indicator System (European Commission).....	10
3.2	Tourism Satellite Account (UNWTO).....	11
3.3	Travel & Tourism Competitiveness Index (WEF).....	16
3.4	Travel & Tourism Economic Impact Research (WTTC).....	19
3.5	Tourism Trade in Value Added (OECD).....	20
3.6	Statistical Initiatives Measuring Tourism at Subnational Level.....	23
4	Sources of Sustainable Economic Development and Implications for Cultural Tourism 29	
4.1	Qualitative Difference of Economic and Cultural Tourism Activities.....	29
4.2	Clustering around Cultural Tourism Services.....	37
4.3	Global Cultural Tourism Value Chains.....	39
5	Economic Impact Assessment of Cultural Tourism in the Piloting Regions.....	43
5.1	Introduction of the Piloting Regions.....	43
5.2	Importance of Economic Goals in Cultural Tourism Strategies.....	45
5.3	Methods and Practices of Assessing the Economic Impacts of Cultural Tourism.....	46
5.4	Key Challenges in Economic Impact Assessment.....	47
6	Discussion and Conclusions.....	50
6.1	Tourism Related Economic Impact Assessment Frameworks.....	50
6.2	Implications for the IMPACTOUR Methodology.....	52
6.3	Implications for the IMPACTOUR Data Sources.....	53
6.4	Implications of COVID-19.....	54
	Annex A: List of Acronyms/Abbreviations.....	55
	Annex B: References.....	57



## **List of Figures**

Figure 0.1 – Relations between WP1-WP4 in IMPACTOUR (fragment).....	2
Figure 1.1 – International tourism expenditure (share %) [9] .....	4
Figure 1.2 – Direct contribution of tourism to OECD countries, 2018 or latest year available [10].....	4
Figure 1.3 – International tourist arrivals in 2020: three scenarios (YoY monthly change, %) [11].....	5
Figure 3.1 – Categorization of tourism characteristic products and industries in TSA [27] .....	13
Figure 3.2 – Sub-indexes and pillars of TTCI [4].....	16
Figure 3.3 – WTTC/Oxford Economics impact assessment framework [8].....	19
Figure 3.4 – Importance of selected industries in terms of non-resident tourism expenditure and value added [30] .....	22
Figure 4.1 – Factor-intensity–driven view of the economy [58] .....	34
Figure 4.2 – Product space [39].....	35
Figure 4.3 – Net exports of mature economies [58] .....	36
Figure 4.4 – Products in different market segments [63] .....	37
Figure 4.5 – Tourism Cluster in Cairns, Australia [68] .....	38
Figure 4.6 – The U.S. Hospitality and Tourism Clusters [69] .....	39
Figure 4.7 – GVC participation by sector, 1995 and 2011 [87] .....	40
Figure 4.8 – The leisure tourism GVC [92].....	41

## **List of Tables**

Table 3.1 – Summary of ETIS Indicators (adapted from [26]).....	11
Table 3.2 – Key variables in the TSA framework (adapted from [27]).....	14
Table 3.3 – Reconciliation of total domestic supply with internal tourism consumption (adapted from [27]) .....	15
Table 3.4 – TTCl indicators (adapted from [4]) .....	17
Table 3.5 – Key indicators in the WTTC/Oxford Economics T&T economic impact assessment framework (adapted from [8]).....	20
Table 3.6 – Key indicators in the Tourism Trade in Value Added framework (adapted from [30]) .....	21
Table 3.7 – Proposal for an RTSA and comparison with the TSA: RMF [33].....	24
Table 3.8 – Interregional tourism consumption matrix [33] .....	25
Table 3.9 – Data in Australia’s Tourism Region Profiles [35] .....	26
Table 4.1 – Industries and sources of innovation [48].....	31
Table 4.2 – STI and DUI policies for regional innovation systems [53] .....	32
Table 4.3 – Innovative effort of services industries [57] .....	33
Table 5.1 – Overview of IMPACTOUR pilot sites.....	43

## 0 Introduction

### 0.1 IMPACTOUR Project Overview

IMPACTOUR – IMproving Sustainable Development Policies and PrActices to assess, diversify and foster Cultural TOURism in European regions and areas – is a project funded by the H2020 Framework Programme of the European Commission under Grant Agreement 870747 and conducted from January 2020 until December 2022. It engages 12 partners from 10 European countries with a total budget of 2,971,250.00 euro. Further information can be found at [www.impactour.eu](http://www.impactour.eu).

The main ambition of IMPACTOUR project is to create an innovative and easy-to-use methodology and tool, to measure and assess the impact of Cultural Tourism (CT) on European economic and social development, and to improve Europe's policies and practices on CT, thereby strengthening its role as a sustainable driving force in the growth and economic development of European regions.

CT has been recognized as one of the drivers of growth, jobs and economic development, as well as intercultural understanding and social development in European regions and urban areas. However, there is still a knowledge gap on methods to measure the impact of CT, to assess multilevel and cross-border strategies, policies and practices which contribute to sustainable development. IMPACTOUR proposes to bring together CT-related stakeholders and researchers to achieve new approaches, taking advantage of the large amounts of information that confront policy-makers.

By identifying and comparing quantitative/qualitative pan-European information on CT forms and promotion, and by providing quantifiable evidence of CT strategies and their effect on European regions' development and Europeanisation, IMPACTOUR will deliver an innovative methodology and tool; combining data analytics algorithms with artificial intelligence and machine learning strategies, providing CT stakeholders with strategic guidance so that policies and practices on CT can be improved.

IMPACTOUR will encompass a sustainable ecosystem by engaging Cultural Tourism stakeholders and following a participatory approach. IMPACTOUR tools and methods will lead to reinforcing the commitment with Europe CT, increasing citizens sense of belonging, valorisation of minority cultures, strengthening of identities and Europeanisation.

The IMPACTOUR methodology will be completed and tested with data collected from 15 data information pilots and the IMPACTOUR tool will be validated in 5 validation pilots, with distinct characteristics spread around Europe.

### 0.2 Deliverable Purpose and Scope

IMPACTOUR addresses sustainable cultural tourism as “integrated management of cultural heritage and tourism activities in conjunction with the local community creating social, environmental and economic benefits for all stakeholders, to achieve tangible and intangible cultural heritage conservation and sustainable tourism development” [3]. Finding a proper



balance between the economic and other aspects of tourism has been gaining importance [1], [4].

The focus of Deliverable 1.1 (D1.1) is on economic sustainability, commonly included within competitiveness studies and a precondition for social development. “Tourism competitiveness for a destination is about the ability of the place to optimise its attractiveness for residents and non-residents, to deliver quality, innovative, and attractive (e.g. providing good value for money) tourism services to consumers and to gain market shares on the domestic and global market places, while ensuring that the available resources supporting tourism are used efficiently and in a sustainable way” [5]. D1.1 aims at creating a common understanding on how cultural tourism can lead to sustainable economic and social development and what kind of key impact assessment frameworks are commonly used to analyse the economic impact of tourism.

As indicated in Figure 0.1, next to D1.1 another Deliverable (D1.2, [1]) is developed that is taking holistic approach to sustainable development of cultural tourism, covering social, cultural, environmental and other aspects, next to the governance of cultural tourism. Deliverables 1.1 and 1.2 complement each other. In addition, D1.3 [6] develops comprehensive understanding regarding suitable methods and data sources to measure the impact of cultural tourism, focusing on rapid developments in the fields of mobile positioning data, World Wide Web data, data on sharing and collaborative economy and passenger data. This way WP1 develops a framework for fostering and forecasting impact of tourism strategies, developed further in WP2 (Comparative assessment of cultural tourism impact), WP3 (Data pilots) and especially in WP4 that is developing IMPACTOUR methodology.

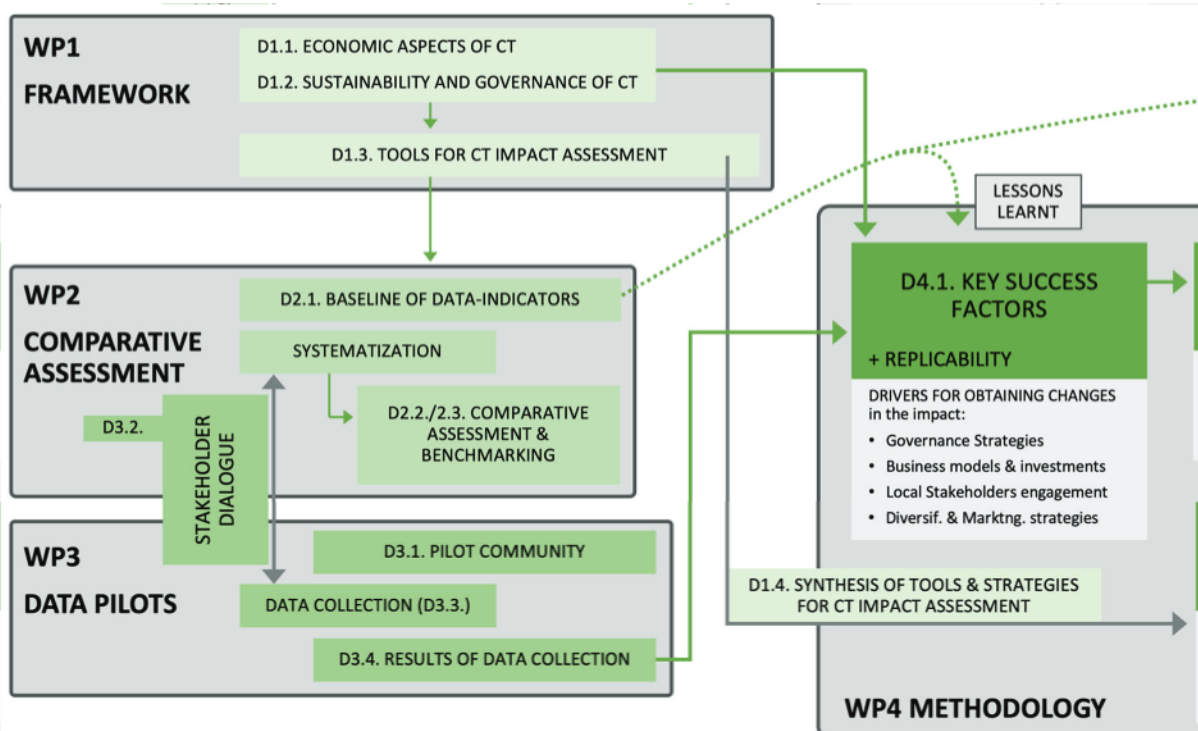


Figure 0.1 – Relations between WP1-WP4 in IMPACTOUR (fragment)

Since one of the cornerstones of the IMPACTOUR project is related to following the existing and contributing to the development of standards [7], mapping and synthesising existing key impact assessment frameworks was prioritised highly in D1.1. Relatedly, the report aims to

develop insights and practical guidelines regarding the IMPACTOUR methodology and data sources, to be explored further in the project, focusing on indicators that enable comparisons of performance. Publications more academic in nature are being developed on the basis of the current report.

### **0.3 Target Audience**

The deliverable is public, and its primary target audience are local/regional authorities, tourism boards, and other relevant stakeholders. Also, it might be of wider interest as it is the most up-to-date and comprehensive analysis of the methods and data sources to measure economic impacts of cultural tourism. The document is also aimed at project participants, as it provides recommendations regarding the IMPACTOUR methodology and data sources.

### **0.4 Document Structure**

The development of D1.1 has been co-ordinated by the Institute of Baltic Studies (IBS), a partner in the project. IBS has been responsible for the overall methodological approach of the deliverable, co-ordinating the input from the academic partners and regional tourism development organisations involved in IMPACTOUR, and in synthesising the material. The lead author has been Tarmo Kalvet, supported by Maarja Olesk and Marek Tiits (all from IBS). The authors are grateful to all IMPACTOUR partners who all contributed to the Deliverable.

Chapter one provides an overall introduction to the topic and gaps in research and policy. Chapter two introduces the methodology behind the report. Key impact assessment frameworks identified are reviewed in chapter three. Chapter four focuses on the contemporary discourse on economic growth and economic development, and on the implications for cultural tourism based economic development and assessment of impacts. Chapter five summarizes the findings from the Pilot regions involved in the project. The final concluding chapter links theories and cases and discusses implications for the IMPACTOUR methodology and data sources.

### **0.5 Document Status**

The Deliverable is listed in the Description of Action as “public”. This document has no preceding documents or expected further formal iterations.

# 1 Tourism, Cultural Tourism and Competitiveness

In terms of its contribution to GDP worldwide, the travel and tourism sector reached \$2.8 trillion in 2018. Including its indirect and induced impacts, travel and tourism generated \$8.8 trillion in GDP globally (10.4%), exceeding that of the agriculture, banking, automotive manufacturing, and mining sectors. The sector sustained a total of 319 million direct, indirect, and induced jobs globally in 2018 and it was the fastest-growing sector in the world in 2018, expanding by 3.9%, ahead of automotive manufacturing (3.7%) and health (3.3%) [8].

Europe accounts for some 30% of global tourism (Figure 1.1). Southern Mediterranean destinations account for 21% of the global international tourist arrivals (2018) and 15% of international tourism receipts (2018) and France, Spain, Italy, Germany and the UK are among the global top 10 destinations [9].

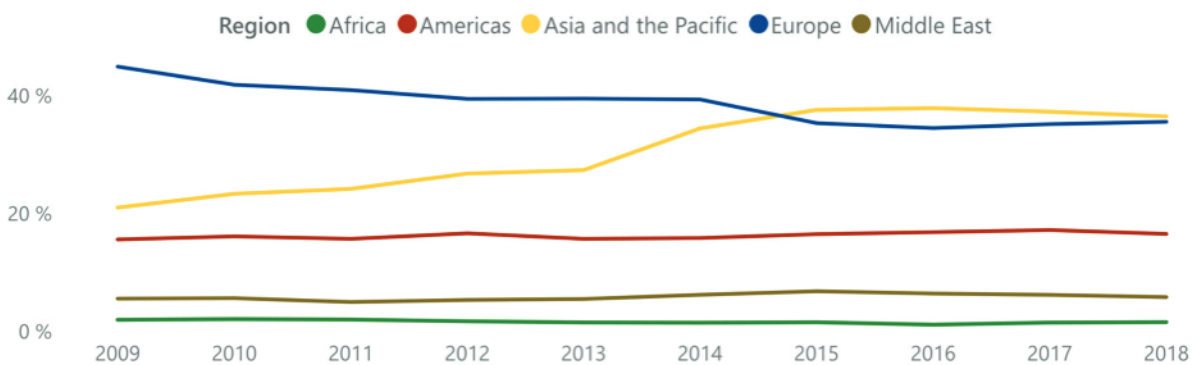


Figure 1.1 – International tourism expenditure (share %) [9]

On average tourism directly contributes 4.4% of GDP and 6.9% of employment, although considerable differences can be noted among countries (Figure 1.2).

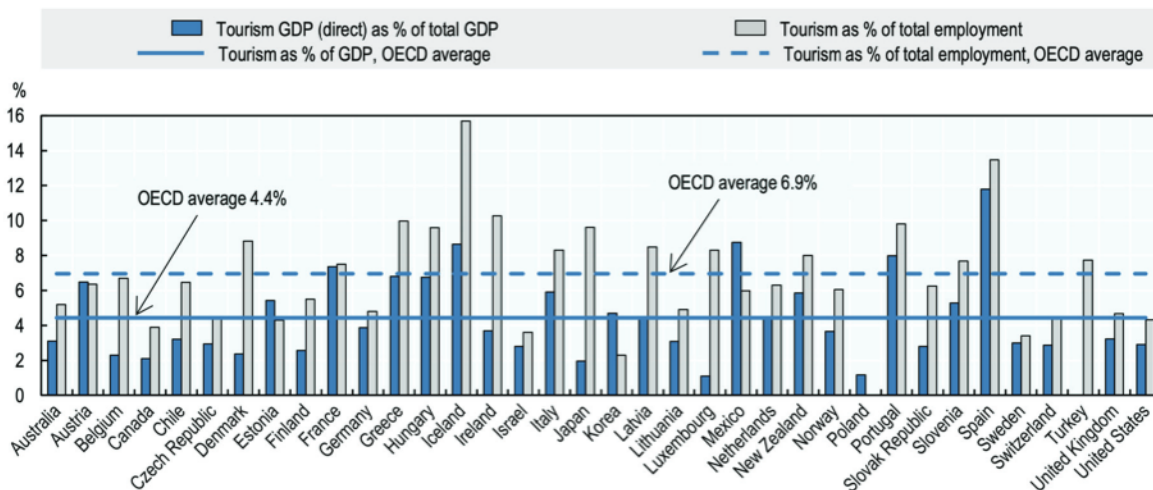


Figure 1.2 – Direct contribution of tourism to OECD countries, 2018 or latest year available [10]

The worldwide outbreak of COVID-19 has impacted on the tourism sector in a major way; tourism has been the worst affected of all major economic sectors. The sector is facing a decrease of 22% in Q1 2020, with arrivals in March down by 57%. Scenarios point to declines of 58% to 78% in international tourist arrivals for the year (Figure 1.3), putting 100 to 120 million direct tourism jobs at risk [11]. In any case, recovery will take a long time.

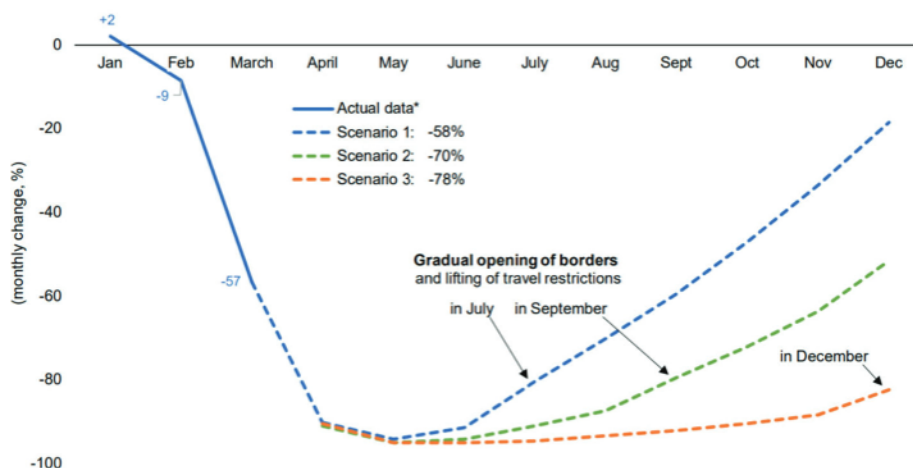


Figure 1.3 – International tourist arrivals in 2020: three scenarios (YoY monthly change, %) [11]

Cultural tourism as a sub-sector of tourism has been defined as a “type of tourism activity in which the visitor’s essential motivation is to learn, discover, experience and consume the tangible and intangible cultural attractions/products in a tourism destination” [12]. Moving away from the originally elite customers orientation, cultural tourism has developed towards the mass market, broadening its concept and comprising, apart from sites and monuments, creativity, lifestyles, traditions and everyday culture.

Several distinct themes have emerged, such as historic and cultural heritage, arts, gastronomic, film and music as well as tourism based on creative industries [13]. Cultural tourism is also increasingly driven by language tourism and the search for cultural experiences based on the lifestyles and habits of the places visited [14]. This diversification of cultural tourism poses an interesting challenge in terms of defining a ‘cultural tourist’ and measuring the impacts of cultural tourism. Further challenges stem from changing mobility patterns. As people increasingly share their lives between several countries and spend extended periods of time outside their country of origin, the roles of ‘locals’ and ‘tourists’ are becoming increasingly blurred [13]. In Matera a concept of ‘temporary citizens’ has been introduced in 2014, being part of the bid as European Capital of Culture (which Matera will become in 2019). The idea was to switch the focus from the ‘place’ to the ‘community’, from the ‘monument’ to the people which inhabit the same space; furthermore, the idea was to work on a larger ‘community’, involving locals and ‘passing by’ citizens [15], [16]. The concept was then re-used also in Barcelona, changing the civic codes and regulation of tourist facilities and “the re-visioning of ‘tourists’ as ‘temporary citizens’, thereby seeking to shift the tourist from a pure consumer into a prosumer of culture” [17].

The size of the cultural tourism market is estimated to account for some 40% of all international tourism arrivals [18], a trend which is expected to further grow in the following years. OECD has similarly also estimated that 50% of European tourism and 50% of tourism from the United States of America to Canada was culture-related [19].

Synergies between tourism and culture can be found in both rural and urban areas, although cities have often been seen as major drivers of cultural tourism growth [18]. While rural cultural tourism has potential to compensate for the decline in traditional industries, particularly agriculture, and to diversify the economy [20], it is less widespread.

Cultural tourism has been recognized as one of the drivers of growth, jobs and economic development, as well intercultural understanding and social development. Compared to other types of tourism, cultural tourism tends to be less prone to high and low seasons. For

example, cultural tourism has been shown to reduce tourism seasonality in a Spanish region with a very popular coastal area [21]. As another example, a study by Guccio et al. [22] indicates that a million euro more worth of cultural heritage attracts about 1,000 more cultural visitors to a region. Their study points to the (monetary) value of cultural heritage for a region, but they also demonstrate the importance of efficient regional management of the tourism sector in boosting cultural visitors.

Cultural tourists have consistently been found to spend more than other types of tourists [13], making cultural tourism an important source of revenue for tourism destinations. It is thus expected that the economic contribution of cultural tourism should be especially high [23]. However, a study on tourism consumption in Croatia demonstrated that while the average tourists' consumption is increasing, there is a decrease in the consumption in cultural tourism. They related this to the failure of cultural tourism industries to respond to demand, inadequate quality of cultural tourism products and suboptimal policy of forming the price of cultural tourism products [23]. This points to the importance of monitoring and assessing the economic contribution of different tourism segments to inform policy decisions that would best utilize the economic potential of cultural tourism.

Demographic, socio-economic, behavioural and other “demand-side” characteristics of visitors who travel to enjoy cultural tourism are important parameters to be considered in relation to the analysis of tourism flows and the management of cultural heritage sites, destinations and events. Economic impact of visitors is not merely measured in terms of footfall; but also depends on spending power, frequency of travels, length of stay, size of groups travelling together and the desired activities of the various cohorts. Those who may be considered ‘cultural tourists’ can range from the ‘purposeful’ type who enjoy learning experiences that challenge them intellectually, through ‘tour-amateur’ sightseers who are willing to visit remote areas, to ‘occasional’, ‘incidental’ and even ‘accidental’ cultural tourists who enjoy cultural experiences in different ways [24]. Visitors’ age, wealth, health, activity level and disability may influence to varying degrees, not only their choice of cultural tourism destination but also the length of their stay and, ultimately, how much they spend on their trip.

How cultural tourism destinations and attractions measure up on the “supply-side”, with respect to inter alia the design of tourism products, accessibility of local infrastructure and services, the level of training of staff, tourism information and the promotion and marketing of their offer, are all factors which impact on their ability to attract visitors and thus, their economic performance.

For the authors of this deliverable it is important to strengthen the link between the economics of cultural tourism and the rather established research on economic competitiveness. As defined by OECD, “competitiveness is the degree to which a nation can, under free trade and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real income of its people over the long-term” [25]. Therefore, competitiveness is based on productivity. Only high productivity enables a country to maintain a strong currency and a high level of welfare. The real aim is increased productivity in creating quality goods that set the prices on world markets.

To summarise, there is still a knowledge gap on methods to measure different types of cultural tourism impacts and contribution to sustainable economic development: UNWTO reports that “It is clear that better and more comprehensive data are required to adequately chart tourism and culture synergies and to guide policy and operations. At present there is little consistency in the measurement of cultural tourism and no agreed definition that can



make measurement more consistent” [18]. Or, as stated by academic researchers “The challenge of continuing to develop and refine theories (and applications) of the cultural aspects of the economics of tourism looms large” [14].

As a result from the explored context, this report sets out to analyse and contribute to these important topics by linking theories of economic growth and development to cultural tourism and analysing the related impact assessment frameworks. The report also raises the question how the existing approaches could be developed further in the IMPACTOUR project.

## **2 Research Methodology**

The preparation of the report started with a literature review. This was carried out during the first two months of the project, i.e. in January and February 2020 (M1-M2). The objective was to identify relevant literature dealing with the economic impact and impact assessment of cultural tourism, both theoretically as well as empirically.

A similar research approach was used for desktop research based chapters. Relevant academic literature was identified using commonly used databases, such as Google Scholar, Scopus and Web of Science. Of the hundreds of potentially relevant sources identified, the most frequently cited and topical ones were explored further for the identification of key occurring themes.

For the identification of recent key tourism related economic impact assessment frameworks, academic sources were mapped using key terms “tourism, ”impact assessment”, “cultural tourism”, “economic development”, limiting the research to more recent titles (since 2016). Furthermore, policy-relevant sources were identified using similar terms and websites of key international organisations (such as the European Commission, EUROSTAT, OECD, UN/UNWTO, WTTC). 35 of the most relevant and up-to-date sources are referred to explicitly in sections 1-3.

The focus of chapter four is on the contemporary discourse on economic growth and economic development, on identifying important and relevant topics potentially complementing the existing impact assessment frameworks. Examples were sought of the novel ways to measure and predict impacts of economic activities and provide insights how these relate to cultural tourism more specifically. Research was carried out regarding “economic development”, innovation, “sustainable economic development” that lead to further research on “cluster, “innovation system”, “cultural tourism”, tourism” and on “global value chain”, “cultural tourism”, tourism”. 60 of the most relevant and up-to-date sources are referred to explicitly in section four.

The findings were continuously discussed with the project partners and elaborated further. The first face-to-face seminar took place on January 28-29, 2020. There were regular seminars with the project partners and on-line communication during M1-M8. These meetings were important in identifying additional frameworks and key challenges regarding how cultural tourism can lead to sustainable economic development.

As the next step empirical feedback was gathered from the regional tourism development organisations. Namely, the IMPACTOUR consortium includes directly or indirectly (as external piloting partners) many regional tourism development organisations. They were approached on M3 about their current practices regarding cultural tourism development. The objective was not to go into details, rather to complement the results of the earlier steps. Interviews were carried out and written feedback was gathered on regional development strategies and on the role of cultural tourism, on the awareness and practices regarding economic impact assessment of cultural tourism and key challenges related to these. Altogether 21 regions were approached for feedback.

The data gathering was expected to be completed from all regions early in M4. However, the outbreak of COVID-19 in Europe had its impact and introduced delays. Many regions involved in the study were hard hit by the virus and the organisations involved are directly involved in fighting the situation. As mitigation measures, the partners were in contact with the regions supporting them in various ways and were searching for other potential piloting regions who could be involved in the study. Also, the deadline for mapping was postponed until the end of M5. With these steps a critical mass of responses was achieved and enabled

to proceed. Section 5 of the report reflects the findings on the basis of 15 regions that provided detailed information.

M5-M8 consisted of the synthesis of the theoretical and empirical materials collected and gathering of feedback from the partners. Quality review was completed on M8.

## 3 Key Tourism Related Economic Impact Assessment Frameworks

In the current chapter, key frameworks used to analyse the economic impact of tourism are analysed and synthesised with cultural tourism specific aspects (sections 3.1-3.5). After that, impact assessment methodologies at the regional and local level are explored (3.6). Five key economic impact assessment frameworks that countries commonly use for assessing economic impacts of travel and tourism are discussed. While two of them (ETIS and TSA) provide an instrument for measuring the direct economic effects of tourism, the methodologies of WTTC/Oxford Economics and OECD also assess the indirect and induced economic effects that occur due to linkages between different productive activities and industries. These linkages are important to measure since they are crucial in maximising the benefits of (cultural) tourism.

### 3.1 European Tourism Indicator System (European Commission)

The European Tourism Indicator System (ETIS) is a voluntary management, information and monitoring tool launched by the European Commission in 2013 to help tourism destinations measure their sustainable tourism performance and to inform the design of tourism policies and marketing strategies [26]. ETIS provides a toolkit including a set of indicators, assisting materials and an implementation process helping destinations monitor and measure their performance. ETIS fosters a multi-stakeholder approach, encouraging destinations to form a Stakeholder Working Group to set up a collaborative monitoring and management process.

ETIS's approach clearly relates the economic competitiveness of the tourism sector to sustainability. The ETIS toolkit [26] defines the sustainability of tourism through the following dimensions:

- equal distribution of economic benefits,
- minimal negative socio-cultural impacts on hosts and tourists,
- protection and enhancement of the natural environment.

ETIS contains 43 core indicators and an indicative set of more specific supplementary indicators tailored to different destination types, categories or markets (e.g., coastal tourism, accessibility, transnational cultural routes). Destinations can freely decide which indicators they follow.

The 43 core indicators fall into four categories:

- Destination management (A)
- Economic value (B)
- Social and cultural impact (C)
- Environmental impact (D).

The economic value category includes four assessment criteria:

- tourism flow at destination,
- tourism enterprises performance,
- quantity and quality of employment,
- tourism supply chain.

These are measured through 10 indicators, summarized in the table below (Table 3.1).

Table 3.1 – Summary of ETIS Indicators (adapted from [26])

Criteria	Indicators
<b>B.1 Tourism flow (volume and value) at destination</b>	<b>B1.1</b> Number of tourist nights per month
	<b>B1.2</b> Number of same-day visitors per month
	<b>B1.3</b> Relative contribution of tourism for the destination's economy (GDP)
	<b>B1.4</b> Daily spending per overnight tourist
	<b>B1.5</b> Daily spending per same-day visitors
<b>B.2 Tourism enterprise(s) performance</b>	<b>B2.1</b> Average length of stay of tourists (nights)
	<b>B2.2</b> Occupancy rate in commercial accommodation per month and average for the year
<b>B.3 Quantity and quality of employment</b>	<b>B3.1</b> Direct tourism employment as percentage of total employment
	<b>B3.2</b> Percentage of jobs in tourism that are seasonal
<b>B.4 Tourism supply chain</b>	<b>B4.1</b> Percentage of locally produced food, drinks, goods and services sourced by the destination's tourism enterprises

Regarding supplementary indicators, one category (“transnational cultural routes”) also proposes some indicators for monitoring the impact of cultural tourism on the marketing and sales opportunities of enterprises located on cultural routes. More specifically, they measure the extent to which:

- local enterprises' products are linked within the theme/activities of the cultural route;
- the communication on the enterprise/products mentions links with the cultural route;
- the cultural route promotes/increases the visibility of the enterprise/products.

As data sources, ETIS uses destinations' self-assessment and data collected and analysed by destinations themselves.

### **3.2 Tourism Satellite Account (UNWTO)**

The Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF) is one of the key methodological frameworks used internationally to measure the effects of tourism on the economy. The framework was adopted in 2000 and updated in 2008 as a result of a collaborative effort of UNWTO, OECD, Eurostat and other UN agencies and partners [27].

The Tourism Satellite Account was adopted to complement the System of National Accounts (SNA 1993), which is an integrated framework for estimating production, consumption and other macroeconomic variables [28]. The supply and use tables (SUT) of the SNA also show the interface between the demand for goods and services and their supply within an economy. However, the classification system used in the core of SNA 1993 does not differentiate visitors from other categories of consumers. The Tourism Satellite Accounts system was developed as an annex to SNA 1993 to link tourism statistics to the standard

tables of the SNA and analyse the aspects of demand for goods and services that are associated with tourism. The concepts, definitions and classifications used in the 2008 revision of the TSA methodological framework are based on the International Recommendations for Tourism Statistics (IRTS). This also ensures conceptual consistency with SNA 1993 and the IMF's Balance of Payments (BPM) statistical framework.

The basis for analysing the economic impacts of tourism is the distinction made in these frameworks between the concepts of a person's:

- country of residence (used as the basis of classification for international visitors);
- place of usual residence within a country (basis of classification for domestic visitors);
- usual environment (the geographical area within which an individual conducts their regular life routines).

The concept of 'usual environment' is the key to determining someone as a 'visitor'. Sharing common definitions with the SNA and BPM, the TSA defines a visitor as a person travelling to a main destination outside their usual environment within or outside a country for less than a year and for a main purpose other than to be employed by a resident entity in the place visited. Visitors are divided into tourists (overnight visitors) and excursionists (same-day visitors). The main purpose of the trip can be classified into two main categories: 1) personal (incl. holidays, leisure and recreation, visiting friends and relatives, education and training, health and medical care, religion/pilgrimages, shopping, transit, other) or 2) business and professional.

TSA:RMF integrates both the demand side (i.e. visitors' share of consuming goods and services) and supply side (i.e. productive activities targeted mainly to visitors) of tourism.

The demand perspective tries to capture the economic consequences of all activities undertaken by a visitor in relation to a trip, not being limited to those considered typical tourist activities (e.g. sightseeing). The key concepts employed in the measurement are:

- Tourism expenditure: "the amount paid for the acquisition of consumption goods and services as well as valuables, for own use or to give away, for and during tourism trips. It includes expenditures by visitors themselves as well as expenses that are paid for or reimbursed by others" [29]. The concept of tourism expenditure is restricted to monetary transactions.
- Tourism consumption, which includes all tourism expenditure, but also encompasses non-monetary transactions, barter transactions, transactions on own account (e.g. accommodation services used in vacation homes that the visitor owns), remuneration and transfers in kind and other imputed consumption. Tourism consumption includes, for example:
  - the imputed value of goods produced on own account from a vacation home (e.g. vegetables) or recreation activities (e.g. fishing) outside the usual environment;
  - the value of the housing services associated with a vacation home (incl. rental and own use);
  - the value of Financial Intermediation Services Indirectly Measured (FISIM) included in any interest paid by visitors on tourism expenditure;
  - the net cost for hosts related to receiving visitors, e.g. increased expenditure on food, utilities, etc.;
  - costs provided by employers for their employees on business trips that do not involve a monetary disbursement by the employee (e.g. accommodation provided free of charge to employees by a hotel);

- the part of ‘social transfers in kind’ [28] that can be considered as benefiting visitors. Social transfers in kind refer to government-funded individual non-market goods and services provided as transfers in kind, usually in the areas of education, social services, health, museums, etc.
- Tourism gross fixed capital formation includes the acquisition of dwellings such as vacation homes and major maintenance and repairs attached to these assets. It also includes innovative types of vacation home ownership (e.g. timeshare, fractional ownership).
- Tourism collective consumption is a special category involving the total value of the consumption of government-provided collective non-market services (public goods), which create a favourable environment for the development of tourism (e.g. visitor information services, administrative services related to hotels and restaurants, part of police and fire protection services, etc.). This is separate from tourism consumption because the beneficiaries of the services cannot be identified individually.

Tourism consumption is divided to the following subcategories:

- domestic: tourism consumption of resident visitors within the economy of reference ;
- inbound: tourism consumption of non-resident visitors within the economy of reference;
- outbound: tourism consumption of resident visitors outside the economy of reference;
- internal: sum of domestic and inbound tourism consumption;
- national: sum of domestic and outbound tourism consumption.

The supply perspective of the TSA aims to measure the role of tourism in the supply of goods and services. To measure the economic contribution of tourism, the TSA provides a classification of products belonging to tourism expenditure and twelve main categories of tourism-characteristic productive activities, which form the respective tourism industry (summarized in Figure 3.1 below). It is important to note that not all tourism-characteristic products are produced within tourism industries (some may also be produced by establishments operating mainly in non-tourism-characteristic areas). At the same time, not all outputs of tourism industries are tourism-characteristic products.

Within the accommodation services category, accommodation services associated with all kinds of vacation home ownership are usually measured separately from other types of accommodation.

<b>Figure 3.1. List of categories of tourism characteristic consumption products and tourism characteristic activities</b>	
<b>Products</b>	<b>Activities</b>
1. Accommodation services for visitors	1. Accommodation for visitors
2. Food and beverage serving services	2. Food and beverage serving activities
3. Railway passenger transport services	3. Railway passenger transport
4. Road passenger transport services	4. Road passenger transport
5. Water passenger transport services	5. Water passenger transport
6. Air passenger transport services	6. Air passenger transport
7. Transport equipment rental services	7. Transport equipment rental
8. Travel agencies and other reservation services	8. Travel agencies and other reservation services activities
9. Cultural services	9. Cultural activities
10. Sports and recreational services	10. Sports and recreational activities
11. Country-specific tourism characteristic goods	11. Retail trade of country-specific tourism characteristic goods
12. Country-specific tourism characteristic services	12. Country-specific tourism characteristic activities

Figure 3.1 – Categorization of tourism characteristic products and industries in TSA [27]

The main variables characterizing the tourism industries in the TSA methodology are:

- Gross value added (the difference between the value of outputs and inputs), which intends to measure the direct contribution of tourism to total Value Added or total GDP. This includes:
  - tourism direct gross value added (TDGVA) – part of the gross value added generated in the economy by tourism industries and other industries directly serving visitors in their supply of goods and services in response to internal tourism consumption.
  - gross value added of the tourism industries (GVATI) – the sum of the gross value added of all tourism industries (including value added from serving non-visitors). For the TSA, this is a less important variable than TDGVA and TDGDP – due to including services to non-visitors, it does not directly characterize the importance of tourism for supply.
- Tourism direct gross domestic product (TDGDP) – the part of GDP attributable directly to internal (inbound + domestic) tourism consumption. TDGDP comprises the part of gross value added (at basic prices) that has been generated by all industries in response to internal tourism consumption, plus the amount of net taxes on products and imports at purchasers' prices.

Additionally, the TSA recommends measuring:

- Employment in tourism industries, including the total number of jobs, number of hours worked, and number of full-time equivalent jobs in the 12 categories of tourism industries, including both employees and self-employed workers. Due to the seasonality of tourism, countries are encouraged to measure employment at least twice a year, during the high and low season.
- Gross fixed capital formation of the tourism industries (the gross fixed capital formation of the tourism industries in tourism-specific as well as non-tourism-specific assets).

The key supply and demand variables of the TSA are summarized in Table 3.2.

Table 3.2 – Key variables in the TSA framework (adapted from [27])

Supply-side variables	Demand-side variables
<ul style="list-style-type: none"> <li>• Tourism direct gross value added (TDGVA)</li> <li>• Gross value added of the tourism industries (GVATI)</li> <li>• Tourism direct gross domestic product (TDGDP)</li> <li>• Employment in tourism industries</li> <li>• Gross fixed capital formation of the tourism industries</li> </ul>	<ul style="list-style-type: none"> <li>• Tourism expenditure (monetary)</li> <li>• Tourism consumption (monetary + non-monetary)</li> <li>• Tourism gross fixed capital formation</li> <li>• Tourism collective consumption</li> </ul>

One of the core tables in the TSA:RMF framework brings together both the supply and demand side of tourism (Table 6 in TSA:RMF 2008). Table 3.3 below provides a simplified version of this table to illustrate the TSA's approach.



Table 3.3 – Reconciliation of total domestic supply with internal tourism consumption (adapted from [27])

PRODUCTS	SUPPLY					DEMAND
<b>A) Consumption products:</b> A.1) Tourism characteristic products* A.2) Other consumption products <b>B) Non-consumption products</b> B.1) Valuables B.2) Other non-consumption products	<b>Tourism industries**</b>	<b>Other industries</b>	<b>Imports</b>	<b>Taxes less subsidies on products nationally produced and imported</b>	<b>Trade and transport margins</b>	<b>Internal tourism consumption</b>
	For all supply categories, the following two variables are measured: <ul style="list-style-type: none"> <li>• output</li> <li>• tourism share (in value)</li> </ul> ...separately per industry and product category.					...per product category
<b>I TOTAL OUTPUT</b> (at basic prices)						
<b>II TOTAL INTERMEDIATE CONSUMPTION</b> (at purchasers' price)***						
<b>(I-II) TOTAL Gross Value Added</b> (at basic prices)						

\*The taxonomy of tourism characteristic products is provided in Figure 3.1 above.

\*\*The taxonomy of tourism industries is provided in Figure 3.1 above.

\*\*\*Intermediate consumption refers to the consumption of reservation services provided by travel agencies, tour operators, etc. Their output is measured as the gross margin they generate. The value of the rest of tourism consumption services is established "net" of this gross margin.

As the TSA methodological framework acknowledges, the TSA only enables measuring the direct economic impacts of tourism. However, Annex 6 of the TSA:RMF [27] suggests possible ways for also measuring the indirect and induced economic effects of tourism that occur due to linkages between different productive activities and industries. For a more nuanced assessment, the TSA should be combined with other instruments, such as the supply and use tables of the SNA framework.

Since the TSA builds in the System of National Accounts, the data for compiling a TSA should primarily be collected by countries themselves. According to Eurostat (n.d.), relevant data is usually collected by statistical offices, central banks (balance of payments) and tourism administrations (tourism-related surveys). Relevant sources may also include multilateral organizations, such as the OECD, EUROSTAT, WTO or IMF.

### 3.3 Travel & Tourism Competitiveness Index (WEF)

The World Economic Forum’s (WEF) Travel & Tourism Competitiveness Index (TTCI) ranks countries according to their competitiveness in terms of travel and tourism (T&T) and provides a strategic benchmarking tool for business and governments [4]. TTCI does not assess the economic impacts of tourism but instead focuses on assessing the enablers in the national economy as a vehicle for attracting tourism and driving economic growth.

The TTCI aims to take a comprehensive and systemic approach to assessing T&T competitiveness, covering diverse factors that are regarded as driving countries’ ability to attract tourism. To some extent, the TTCI research reports also address the interdependencies between different pillars. The TTCI comprises 4 sub-indexes:

1. Enabling environment
2. Travel and tourism policy and enabling conditions
3. Infrastructure
4. Natural and cultural resources

The sub-indexes are divided into 14 pillars and 90 individual indicators. Figure 3.2 below shows the sub-indexes and pillars with their weight in the overall index. The number of pillars per sub-index decreases the more directly the pillars are linked to travel and tourism. The more direct the link, the higher the weight of each pillar (e.g. cultural and natural resources have a greater importance in the index than business environment or labour market conditions).

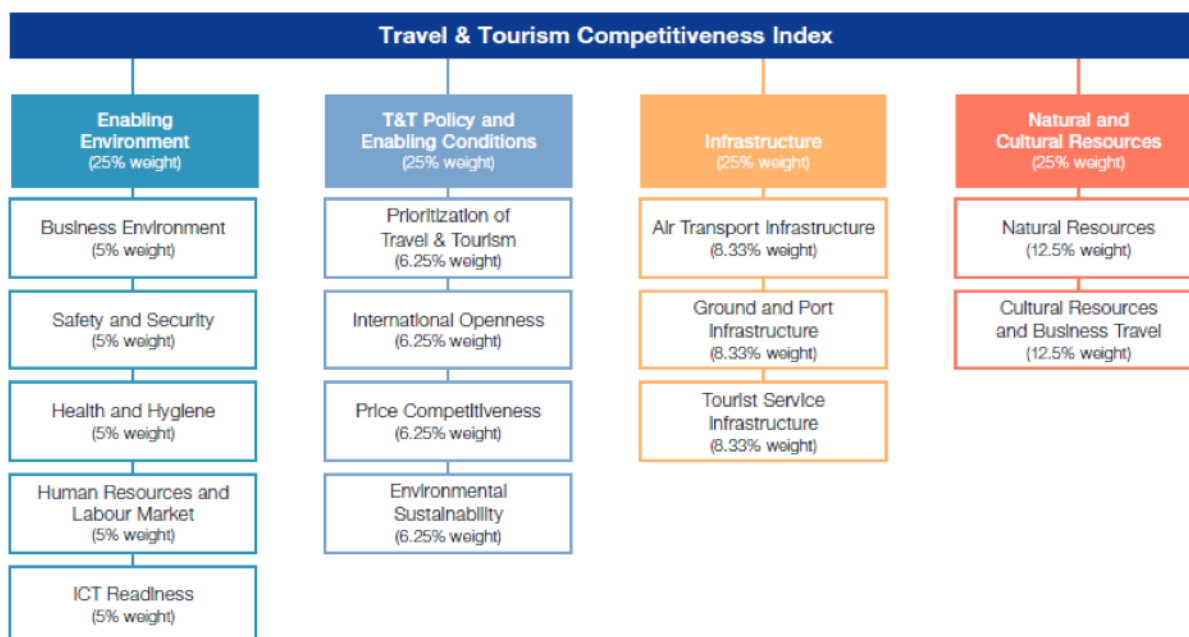


Figure 3.2 – Sub-indexes and pillars of TTCI [4]

The 90 individual indicators assessed under each pillar are summarized in Table 3.4 – TTCI indicators (adapted from [4]).

Table 3.4 – TTCI indicators (adapted from [4])

<b>(A) Enabling environment</b>				
<b>(1) Business environment</b>	<b>(2) Safety and security</b>	<b>(3) Health and hygiene</b>	<b>(4) Human resources and labour market</b>	<b>(5) ICT readiness</b>
1.01 Property rights 1.02 Impact of rules on FDI 1.03 Efficiency of legal framework in settling disputes 1.04 Efficiency of legal framework in challenging regulations 1.05 Time required to deal with construction permits 1.06 Cost to deal with construction permits 1.07 Extent of market dominance 1.08 Time required to start a business 1.09 Cost to start a business 1.10 Extent and effect of taxation on incentives to work 1.11 Extent and effect of taxation on incentives to invest 1.12 Total tax rate	2.01 Business costs of crime and violence 2.02 Reliability of police services 2.03 Business costs of terrorism 2.04 Index of terrorism incidence 2.05 Homicide rate	3.01 Physician density 3.02 Use of basic sanitation 3.03 Use of basic drinking water 3.04 Hospital beds 3.05 HIV prevalence 3.06 Malaria incidence	<i>Labour force qualification:</i> 4.01 Primary education enrolment rate 4.02 Secondary education enrolment rate 4.03 Extent of staff training 4.04 Treatment of customers  <i>Labour market:</i> 4.05 Hiring and firing practices 4.06 Ease of finding skilled employees 4.07 Ease of hiring foreign labour 4.08 Pay and productivity 4.09 Female labour force participation	5.01 ICT use for business-to-business transactions 5.02 Internet use for business-to-consumer transactions 5.03 Individuals using the internet 5.04 Broadband internet subscribers 5.05 Mobile telephone subscriptions 5.06 Mobile broadband subscriptions 5.07 Mobile network coverage 5.08 Quality of electricity supply
<b>(B) T&amp;T policy and enabling conditions</b>				
<b>(6) Prioritization of T&amp;T</b>	<b>(7) International openness</b>	<b>(8) Price competitiveness</b>	<b>(9) Environmental sustainability</b>	
6.01 Government prioritization of the T&T industry 6.02 T&T government expenditure 6.03 Effectiveness of marketing to attract tourists 6.04 Comprehensiveness of annual T&T data 6.05 Timeliness of providing monthly/quarterly T&T data 6.06 Country Brand Strategy rating	7.01 Visa requirements 7.02 Openness of bilateral Air Service Agreements 7.03 Number of regional trade agreements in force	8.01 Ticket taxes and airport charges 8.02 Hotel price index 8.03 Purchasing power parity 8.04 Fuel price levels	9.01 Stringency of environmental regulations 9.02 Enforcement of environmental regulations 9.03 Sustainability of travel and tourism industry development 9.04 Particulate matter (2.5) concentration 9.05 Number of environmental treaty ratifications 9.06 Baseline water stress 9.07 Threatened species 9.08 Forest cover change 9.09 Wastewater treatment 9.10 Fish stock status	

(C) Infrastructure			(D) Natural and cultural resources	
(10) Air transport infrastructure	(11) Ground and port infrastructure	(12) Tourist service infrastructure	(13) Natural resources	(14) Cultural resources and business travel
10.01 Quality of air transport infrastructure	11.01 Quality of roads	12.01 Hotel rooms	13.01 Number of World Heritage natural sites	14.01 Number of World Heritage cultural sites
10.02 Available seat kilometres, domestic	11.02 Road density	12.02 Quality of tourism infrastructure	13.02 Total known species	14.02 Number of oral and intangible cultural heritage expressions
10.03 Available seat kilometres, international	11.03 Paved road density	12.03 Presence of major car rental companies	13.03 Total protected areas	14.03 Number of sports stadiums
10.04 Aircraft departures	11.04 Quality of railroad infrastructure <sup>1</sup>	12.04 Automated teller machines per adult population	13.04 Natural tourism digital demand	14.04 Number of international association meetings
10.05 Airport density	11.05 Railroad density		13.05 Attractiveness of natural assets	14.05 Cultural and entertainment tourism digital demand
10.06 Number of operating airlines	11.06 Quality of port infrastructure			
	11.07 Ground transport efficiency			

According to the TTCI 2019 report, high-income economies tend to perform better across all dimensions of the TTCI, with the exception of the natural resources pillar, where a few natural resource-rich lower-income countries also perform well [4].

In addition to the more traditional indicators related to cultural heritage, the cultural resources pillar includes the availability of large stadiums that can host major sports or entertainment events as well as digital demand for cultural and entertainment tourism. Digital demand is a new measure and refers to the number of online searches related to a country's cultural resources, which is used as a proxy for the level of interest in them. According to [4] trends in the cultural and entertainment digital demand well reflect trends in the number of visitors as the top economies for digital demand also account for a large part of tourist arrivals among economies. It is thus an indicator of a destination's attractiveness for visitors.

The cultural and entertainment tourism digital demand is measured using the Bloom Consulting's proprietary Digital Demand – D2 tool<sup>1</sup>, which assesses the attractiveness of countries and places by analysing global online search data across relevant brand-tags in nine languages (English, Spanish, French, Italian, German, Portuguese, Russian, Japanese and Chinese). The cultural and entertainment tourism digital demand in the TTCI framework is measured by composing an index based on the number of global online searches that use destination-specific keywords which can be related to specific brand-tags comprising cultural tourist activities and attractions (Historical Sites, Local People, Local Traditions, Museums, Performing Arts, UNESCO, City Tourism, Religious Tourism, Local Gastronomy, Entertainment Parks, Leisure Activities, Nightlife and Special Events).

The scope of the TTCI is not limited to just ranking economies. It also provides regional analyses and selected country case studies along with suggestions for possible pathways for improving tourism competitiveness by building on the existing enablers and addressing the critical shortcomings in the national/regional environment.

The TTCI relies predominantly on statistical data from international organizations and data partners, such as UNWTO, WTTC, International Air Transport Association (IATA), the

<sup>1</sup> <https://www.d2digitaldemand.com/>

International Union for Conservation of Nature (IUCN), etc. Statistical data are combined with survey data from the WEF’s annual Executive Opinion Survey, which covers the more qualitative aspects of the index.

### 3.4 Travel & Tourism Economic Impact Research (WTTC)

The travel and tourism economic impact assessment framework of the World Travel & Tourism Council (WTTC) and Oxford Economics assesses and forecasts the economic impacts of travel and tourism, relying extensively on the Tourism Satellite Accounts (TSA) for definitions and data. Its aim is to complement the TSA by broadening the scope of the economic impacts assessed, providing comparability across countries and a global and regional perspective on the economic contribution of Travel and Tourism (T&T), benchmarking with the economic contribution of other industries, analysis of linkages with other industries, ten-year forecasts and a modelling tool and basis for scenario and policy analysis [8]. Unlike the TSA, the WTTC/Oxford Economics framework also assesses the broader economic impacts of T&T by looking at its indirect impacts (focusing on T&T investment and impacts on T&T suppliers) and induced impacts (spending by employees directly or indirectly working for T&T sectors). The conceptual approach is depicted in Figure 3.3.

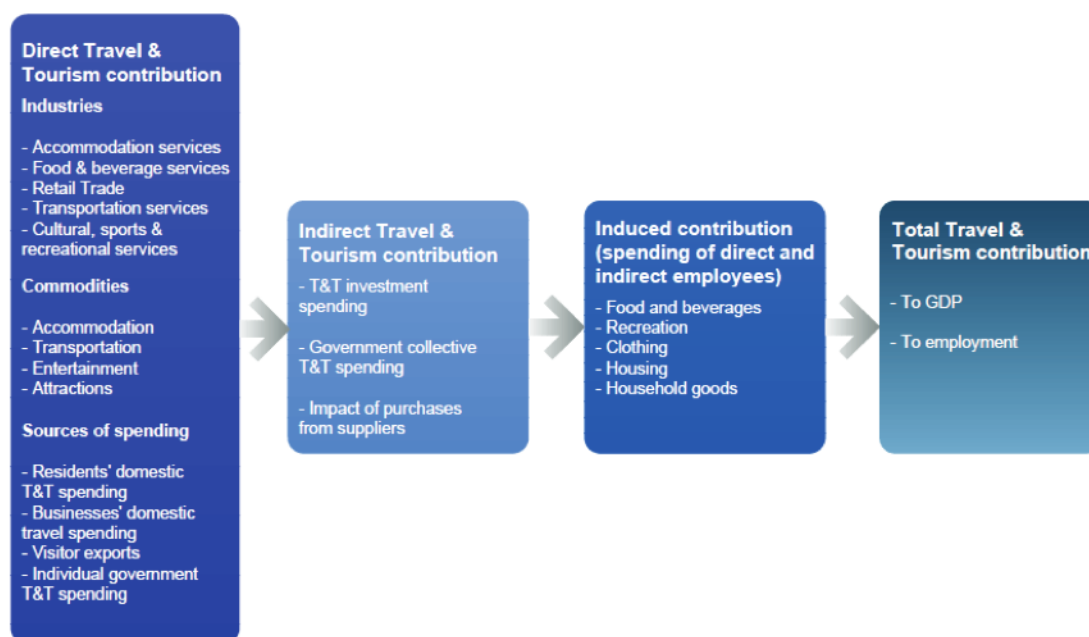


Figure 3.3 – WTTC/Oxford Economics impact assessment framework [8]

In the WTTC/Oxford Economics framework, the total contribution of T&T to GDP is the equivalent of the concept of Tourism Direct Gross Domestic Product (TDGDP) in the TSA framework. Travel & Tourism’s total contribution to GDP is calculated as the sum of direct, indirect and induced contribution to GDP. More specifically, the framework uses the following indicators to assess the three types of economic impacts of T&T (see Table 3.5).

Table 3.5 – Key indicators in the WTTC/Oxford Economics T&T economic impact assessment framework (adapted from [8])

<b>Direct contribution to GDP</b>	<p>The <b>direct contribution to GDP</b> is calculated from <b>total internal tourism consumption by residents, non-residents and government, less domestic and imported supply-chain purchases by T&amp;T industries</b>.</p> <p><b>Total internal tourism consumption</b> includes:</p> <ul style="list-style-type: none"> <li>• <b>Resident domestic Travel &amp; Tourism expenditure</b> – spending on T&amp;T in the domestic economy by domestic residents (both for business and leisure purposes);</li> <li>• <b>Visitor exports</b> – T&amp;T spending in the domestic economy by foreign visitors residents;</li> <li>• <b>Government 'individual' spending</b> – spending by government on Travel &amp; Tourism services directly linked to visitors, such as cultural (e.g. museums) or recreational visitors (e.g. national parks).</li> </ul> <p>The direct contribution is calculated to be consistent with the <i>output</i> of tourism industries.</p>
<b>Indirect contribution to GDP</b>	<p>The <b>indirect contribution</b> involves the contribution to GDP and jobs by:</p> <ul style="list-style-type: none"> <li>• <b>Travel &amp; Tourism investment spending</b> – investment activity of tourism industries, incl. into tourism-specific fixed assets, non-tourism-specific fixed assets and tourism-related infrastructure;</li> <li>• <b>Government 'collective' spending</b> – spending on collectively consumed services (following the TSA definition), e.g. tourism marketing, administration, security services, etc;</li> <li>• <b>Domestic (non-imported) supply chain purchases of goods and services by tourism sectors</b> (e.g. food and cleaning, IT services, etc.). Imported purchases are <i>excluded</i> from the indirect contribution as these represent value leakages.</li> </ul>
<b>Induced contribution to GDP</b>	<p>The <b>induced contribution</b> involves the contribution to GDP and jobs by:</p> <ul style="list-style-type: none"> <li>• <b>Spending of direct and indirect employees</b> of T&amp;T industries (for data consistency purposes, the share of direct employment is estimated based on productivity).</li> </ul>

As data sources, the framework uses national TSA reports or the UNWTO's compilation of country TSA results where national reports are not available. For 8 selected countries, WTTC and Oxford Economics have conducted their own TSA analysis over the past 15 years. For certain elements, e.g. foreign visitor spending, sources such as IMF Balance of Payments are used. For historical estimates, gaps in existing data are addressed by estimates derived from the typical relationship between the missing information and other economic indicators. For forecasts, the Oxford Economics' global macroeconomic forecasting models are used, which provide forecasts for macroeconomic indicators such as GDP, employment, private consumption (broken down by purpose), government consumption, fixed investment in the private and public sectors, and exports and imports of goods and services. The T&T forecasts are obtained by the projection of the trends of the historical T&T shares for the respective aggregates.

### 3.5 Tourism Trade in Value Added (OECD)

The OECD's Tourism Trade in Value Added is a newly proposed framework for analysing the role of tourism in global value chains in light of increasing globalisation and international fragmentation of the production and consumption of tourism [30]. The approach builds on the ongoing work of the OECD and World Trade Organization (WTO) in developing a

broader Trade in Value Added (TiVA) framework, which “traces the value added by each industry and country in the production chain and allocates the value added to these source industries and countries” [30]. According to [30], applying the TiVA approach to tourism would enable to develop a better understanding of the relationships between the trade, production and consumption of tourism services, the share of domestic and foreign value added in tourism exports, the benefits that tourism creates for national economies, and the forward and backward linkages between tourism and other industries. The practical aim of the approach is to help businesses and policymakers identify the types of tourism activities and tourism source markets that add more value to the domestic economy.

The framework addresses the problem of double counting ingrained in conventional analyses of gross trade flows by also accounting for the value added of intermediate inputs imported from other countries in a country’s tourism export. It also addresses some of the limitations of the Tourism Satellite Accounts (TSA), which only assesses the direct economic effects of domestic and inbound tourism but excludes indirect effects. The TiVA “measures both the direct and indirect impact of inbound tourism in value added terms – directly through the sale of goods and services to non-residents and indirectly through inputs to these sales – and splits tourism exports into domestic and foreign value added parts. It measures all non-resident expenditures in the reference economy, at basic prices, based on a more detailed product classification” [30]. Unlike the TSA, which excludes expenditure by cross-border workers and travellers in transit, the TiVA measures all non-resident expenditure in the reference economy, including cross-border workers and passengers in transit.

The framework puts forward several key national-level indicators of tourism trade in value added. These are summarized in Table 3.6.

Table 3.6 – Key indicators in the Tourism Trade in Value Added framework (adapted from [30])

Indicator	Explanation
Domestic value added generated from non-resident expenditure	Shows the overall importance of tourism for the economy of reference
Domestic and imported value-added content of selected final demand categories	Enables comparing the domestic value added content of tourism exports with that of overall exports and to assess the impact of tourism exports on the domestic economy compared to other economic sectors (this is related to the types of products and services that non-residents are more likely to purchase)
Non-resident tourism expenditure patterns (in gross value and value-added terms)	Enables identifying what types of products and services non-residents tend to purchase
Relative importance of selected industries in non-resident tourism expenditure	Enables comparing the relative importance of certain industries in the overall non-resident expenditures with their importance in terms of the value added embodied in non-resident expenditures
Indirect domestic value added generated by non-resident tourism expenditures	Enables assessing the value added generated from the upstream contributions of other industries to tourism-related industries
Ratio of indirect domestic value added to total value added of an industry	Enables assessing to what extent the production of industries indirectly catering for tourists depends on tourism

As an illustration of the kinds of insights that can be generated by measuring these indicators, Figure 3.4 shows the relative importance of certain industries in three countries in terms of their overall share in the tourism expenditure of non-residents compared to the value-added embodied in these expenditures. For example, in Canada, nearly 40% of non-resident expenditures are spent on accommodation and food but this share is only 27% in value-added terms. This demonstrates the upstream role of other industries in providing inputs to the products and services bought by tourists (in the case of Canada, the importance of education and real estate).

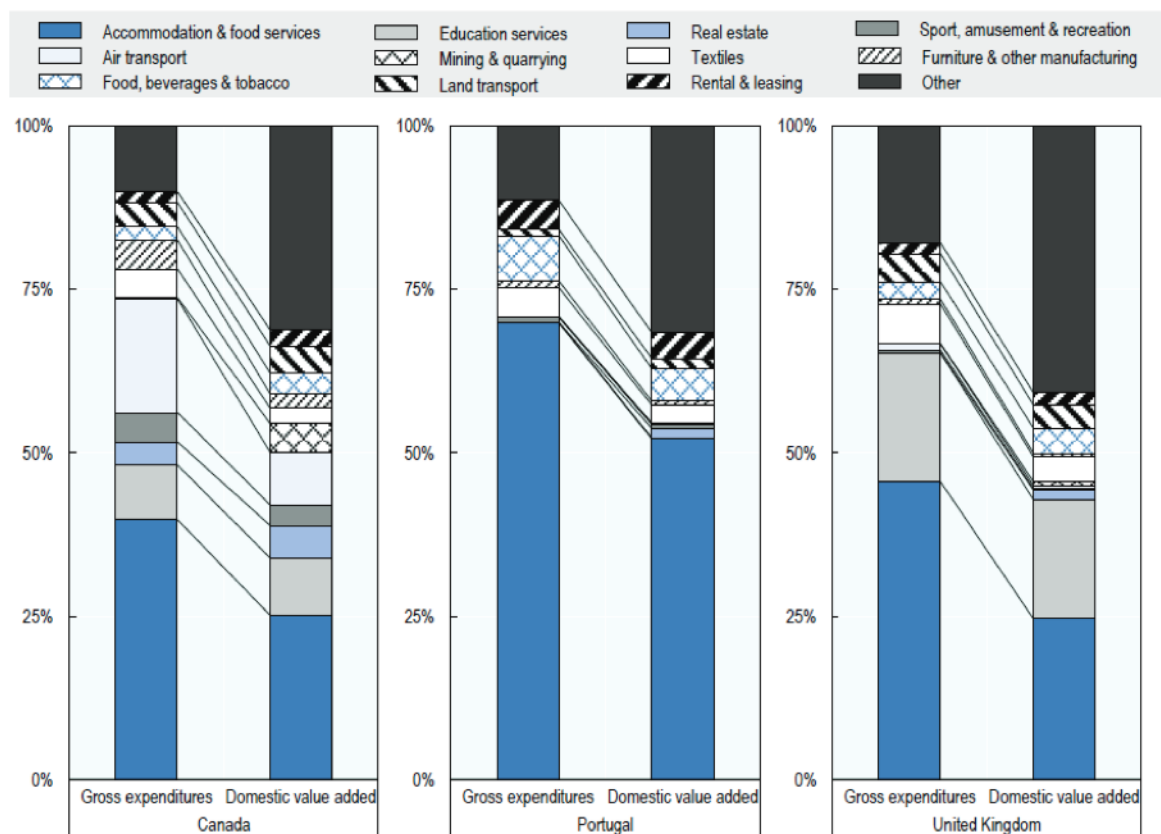


Figure 3.4 – Importance of selected industries in terms of non-resident tourism expenditure and value added [30]

In addition to the national level, the TiVA framework also enables international-level analysis. Using inter-country input-output (ICIO) tables, it is possible to analyse the detailed breakdown (by industry, by country) of the intermediate imports used directly or indirectly by industries in the tourism value chain. ICIO tables link production processes within and across countries and industries and capture bilateral trade links and exchanges of intermediate goods and services. Thus, they also permit calculating the reimported domestic value added (the extent of the reporting country's own value added that is embodied in its imports), analysing the value added generated by non-resident expenditures by partner country, tracking the country and industry origin of value added in gross exports and final demand, as well as the ultimate origin of value added and the ultimate country of final demand.

The TiVA framework makes use of existing statistical frameworks and data sources, such as national supply and use statistics, the TSA and the inter-country input-output (ICIO) infrastructure, which OECD and WTO have been developing jointly since 2011. While many indicators relevant for the framework are derived from national statistics, the use of the ICIO adds the possibility of analysing the ultimate origin of value added and the ultimate country of final demand in addition to a country's immediate import and export partners.



### 3.6 Statistical Initiatives Measuring Tourism at Subnational Level

The role of municipalities and regions in tourism development is becoming increasingly acknowledged, as are the existing challenges in developing adequate information and measurement systems of the impacts of tourism at the subnational level [31]. The development of impact assessment methodologies at the regional and local level is currently hindered by problems such as weak disaggregation of data at the subnational level, weakness in the statistical base and validity of data, lack of capacity and funding for the collection of regional-level statistics, problems of overlapping and coherence, and unclear boundaries of the regional units to be observed [31]. Nevertheless, international agencies and individual countries and regions have started work on developing more solid bases for regional-level tourism statistics as well as exploring innovative data sources and tools that could help assess the impacts of tourism at the regional level (see [6] for a detailed overview of new tourism data sources and tools).

As one of the key tools so far, the UNWTO has proposed an adapted version of the TSA – the Regional Tourism Satellite Account (RTSA) – as a possible solution for measuring the impacts of tourism at the subnational level. Essentially, the approach copies that of the national-level TSA (incl. relying on the core concepts and the supply and use tables of the SNA) but compiles the data at the regional level. Most existing regional tourism assessment initiatives use some adaptation of the RTSA [31].

In order to support the compilation of regional TSAs, the International Network on Regional Economics, Mobility and Tourism (INRouTe)<sup>2</sup> has proposed the statistical initiative of creating Regional Tourism Information Systems (R-TIS) with a view to linking tourism and territorial planning and advancing sustainable development [32]. The basic indicators and data derived from R-TIS should be foremost applicable for compiling the TSA at the level of tourism regions but could in the longer term also be scaled down to the level of sub-regional tourism destinations and cities. While the UNWTO does not ascribe strict guidelines on what types of territory could be covered by an RTSA, it is recommended that the territory correspond to an administrative or political entity in the country and have the minimum level of statistical information required for compiling an RTSA [33].

As the development of an R-TIS to assist the production of an RTSA data-intensive, INRouTe considers the effort justified if tourism constitutes a significant part of the economy of the given region, and if basic national statistical resources are available. INRouTe recommends each country to explicitly define the 'economic significance' of tourism based on a set of fixed criteria. Such criteria could include, for example, employment associated with tourism, the number of establishments in the tourism industries and the value added by tourism industries, or demand-side indicators such as the number of overnight stays and visitors [32].

The application of the TSA approach at the regional level requires adaptations in the central concepts and categories of the TSA to distinguish the supply and demand originating from the region of interest from that of the rest of the country and other countries. To this end, the RTSA breaks visitors down to three separate categories [32]:

- Residents of the region of interest;

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<sup>2</sup> INRouTe is a UNWTO-affiliated initiative promoting the measurement of the economic impacts of tourism at the subnational level by adapting the TSA:RMF methodology. For more information, see <http://www.inroutenetwork.org/about-us/what-is-inroute/>.

- Residents from other regions of the country of reference;
- Residents from countries other than the country of reference.

Tourism expenditure and tourism consumption are hence accounted separately for these visitor categories. For instance, inbound regional tourism expenditure/consumption is divided into two categories: the expenditure/consumption associated with 1) the travel of foreign visitors (inbound visitors to the country as a whole) to the region, and 2) the travel of resident visitors from other regions of the country to the region of reference. In a similar vein, domestic regional tourism consumption is defined as including the activities of resident visitors of the region of interest within the region, whereas outbound regional tourism consumption is associated with resident visitors in the region of interest travelling outside the region, whether inside or outside their country.

As a minimum, the UNWTO [33] has proposed four key data tables to be produced as part of the RTSA (see the summary in Table 3.7). The key tables concern inbound and domestic tourism consumption, production and operation accounts of tourism-characteristic industries (yielding the tourism GVA), supply by industry and internal tourism consumption by product (yielding the tourism GDP), and employment in tourism industries. Most of the recommended tables for the RTSA constitute simplified versions of the national-level TSA.

**Table 3.7 – Proposal for an RTSA and comparison with the TSA: RMF [33]**

TSA:RMF tables	Proposal for an RTSA	
	Title	Details
Table 1. Inbound tourism expenditure	---	(Included in summarized form in Table 1)
Table 2. Domestic tourism expenditure	---	(Included in summarized form in Table 1)
Table 3. Outbound tourism expenditure	(*)	Not included (*)
Table 4. Internal tourism consumption	TABLE 1. Internal tourism consumption	Breakdown by consumption products and components: inbound tourism expenditure; domestic tourism expenditure; other components of tourism consumption.
Table 5. Production accounts	TABLE 2. Production accounts of characteristic industries	Breakdown: production and operation accounts by branch of tourism activity.
Table 6. Domestic supply and internal tourism consumption	TABLE 3. Supply and internal tourism consumption	Minimum proposal: a) Totals for supply operations: production; imports; taxes net of subsidies; commercial and transport margins. b) Production matrix based on supply table, plus "indirect" or "endogenous" product ratios
Table 7. Employment in the tourism industries:	TABLE 4. Employment in the tourism industries.	Minimum breakdown: employment positions, differentiated according to: a) salaried or unsalaried; b) full or part time. Hours worked.
Table 8. Gross fixed capital formation of tourism industries	TABLE 5. GFCF of the tourism industries. <i>(Voluntary)</i>	Minimum breakdown: asset categories.
Table 9 Tourism collective consumption	---	Not included
Table 10. Monetary and nonmonetary indicators of demand and supply	Table Annex 1. Indicators of demand and supply <i>(Voluntary)</i>	Suggested minimum proposal: - Inbound tourism: no. of arrivals and overnight stays. - No. of establishments and collective accommodation capacity. - No. of establishments in the tourism industries.
	Table Annex 2. The region's external balances for tourism consumption <i>(Voluntary)</i>	- Best: Complete matrix of tourism consumption by region of supply/use. - Second-best: Inbound and outbound tourism consumption according to principal regions of supply/use.

One of the key parts of an RTSA is the development of an interregional consumption matrix, which shows tourism consumption by the visitors' region of residence and travel destination (see Table 3.8).

Table 3.8 – Interregional tourism consumption matrix [33]

		Territory of destination where expenditure/consumption takes place					Total consumption by residence of the traveller
		Region 1	Region 2	.....	Region n	Rest of the world	
Residence of the traveller	Region 1	CIN <sub>11</sub>	CIN <sub>12</sub>	.....	CIN <sub>1n</sub>	CEM <sub>1</sub>	C <sub>1*</sub>
	Region 2	CIN <sub>21</sub>	CIN <sub>22</sub>	.....	CIN <sub>2n</sub>	CEM <sub>2</sub>	C <sub>2*</sub>
	.....	.....	.....	.....	.....	.....	.....
	Region n	CIN <sub>n1</sub>	CIN <sub>n2</sub>	.....	CIN <sub>nn</sub>	CEM <sub>n</sub>	C <sub>n*</sub>
	Rest of the world	CREC <sub>1</sub>	CREC <sub>2</sub>	.....	CREC <sub>n</sub>		CREC
Total consumption by territory of destination		C <sub>*1</sub>	C <sub>*2</sub>	.....	C <sub>*n</sub>	CEM	

According to INRouTe, the core of the R-TIS should be derived from official statistical surveys at the national level, including demand-side surveys (e.g. border surveys, domestic tourism household surveys and population census) and supply side surveys (e.g. statistical business register, structural business survey, accommodation survey) [32]. Three basic sets of information are relevant [32], [33]:

- Statistical information on tourism from national-level statistical offices and tourism agencies, disaggregated to the regional level.
- Statistical information provided by official statistical operations carried out by regional bodies. Some countries may also have bottom-up methods of data collection in place for national statistical offices.
- Other information, including data collected for purposes other than measuring the impacts of tourism. Reusing data from existing registers and data sources (e.g. household electricity consumption, transport authorities, business cycle indicators) or making use of new sources such as credit card expenditure records, mobile location monitoring, geo-referencing systems, big data, Internet search engines or automated reading of vehicle license plates could constitute useful supplementary data sources both at the regional and national level.

Over the years, two distinct approaches to the RTSA have emerged [33], [34]:

- Regionalization, or top-down approach, where the variables of interest are derived from the national TSA and distributed territorially based on certain criteria. The regionalization approach has been used, for example, in Australia, Canada, Denmark, Finland, Norway, who have developed regional systems derived from the national TSA or national accounts and the input-output system [33].
- Regional estimation, or bottom-up approach, where the RTSA is calculated for specific regions using supply and use tables and other statistical or accounting information similarly to compiling a national TSA. In this case, the national level results from the consolidation of regional approaches. Regional estimation approaches have been used most prominently in Spain and the UK.

Below, four selected examples of regional economic impact assessment approaches in different countries are briefly discussed to give a glimpse of the variety of existing methodologies. Some rely on adaptations of RTSA, others focus on reusing already available data resources, such as business registers or electronic card transactions. For more details and additional cases, see [31].

**Australia's** Tourism Region Profiles<sup>3</sup> provide comprehensive supply and demand tourism data for all of Australia's tourism regions. These are complemented by state-level and local government area-based tourism profiles. Among other data, the Tourism Region Profiles include data about the top three international tourist markets and domestic markets (regions). The profiles are based mainly on two large-scale surveys (international visitor survey and national visitor survey) and supplemented with population and business-related data from national registers. To reduce standard error, data from several years are combined into an annual average for the profile. The profiles include the following data (Table 3.9):

Table 3.9 – Data in Australia's Tourism Region Profiles [35]

Demand-side data	Supply-side data
<ul style="list-style-type: none"> <li>• Number of international and domestic visitors</li> <li>• Origin of visitors (incl. top three international and domestic markets)</li> <li>• Age groups of visitors</li> <li>• Average length of stay</li> <li>• Purpose of visit (holiday/visiting friends or relatives/business/other)</li> <li>• Types of tourist activities undertaken (incl. the category of culture and heritage)</li> <li>• Top accommodation types used</li> <li>• Average spend per night in commercial accommodation</li> <li>• Travel party types of visitors</li> <li>• Modes of transport used (air/road/other)</li> <li>• Aggregate destination expenditure</li> </ul>	<ul style="list-style-type: none"> <li>• Number of tourism businesses</li> <li>• Number of accommodation rooms</li> <li>• Accommodation occupancy rate</li> <li>• Revenue per available room</li> <li>• Aviation capacity (number of inbound seats)</li> <li>• Aviation seat utilization factor</li> <li>• Visitor-population ratio</li> <li>• Tourism investment (in monetary value) and number of investment projects per region (incl. investments into accommodation; arts, recreation and business services; aviation infrastructure and fleet)</li> </ul>

In **Canada**, the province of Ontario has been using the Tourism Regional Economic Impact Model (TREIM)<sup>4</sup> since 2004 with the aim of estimating and forecasting the economic impact of tourism at the sub-provincial level [31]. The statistics used in the model cover 16 travel regions, 49 counties, districts and regional municipalities, and 43 census metropolitan areas and census agglomerations [36]. In essence, the TREIM is a multi-region input-output model, which permits to evaluate the past economic impacts and forecast the future economic impacts of tourism across four dimensions:

- Visitor spending (impacts in a specific region or for a specific event, by different types of activities, including festivals, cultural performances, museums and galleries, sports events, historic sites, movies, restaurants and bars, etc.);
- Operational expenses (impacts of operating a tourism business);
- Investment expenditures (impacts of building or improving tourism facilities);
- Convention centre activity (impacts of hosting conferences and exhibits, incl. the spending of delegates).

The TREIM model produces estimates of direct, indirect and induced impacts of tourism-related activities on GDP, labor income, employment and tax revenues at different administrative levels. It also enables the estimation of the economic impact of specific tourism events. Unlike standard input-output models, the TREIM is able to capture the impact of tourism sector activity on the additional income paid to households, and the impact of changes in economic activity on business investment [31]. The model thus also involves

<sup>3</sup> More information: [https://www.tra.gov.au/tra/2016/Tourism\\_Region\\_Profiles/Region\\_profiles/index.html](https://www.tra.gov.au/tra/2016/Tourism_Region_Profiles/Region_profiles/index.html)

<sup>4</sup> More information: <http://www.mtc.gov.on.ca/en/research/treim/treim.shtml>

the induced impacts of tourism in the form of the economic impacts of household spending and business investment stemming from tourism activities.

The key data sources for the economic impact assessment include the Travel Survey of Residents of Canada and the International Travel Survey, statistical data from Statistics Canada (e.g. data on Canadian business patterns) as well as private data resources (e.g. CBRE's proprietary database and reports on the accommodation industry in Canada). An online tool has been built based on the TREIM model, which is available at the provincial government's website<sup>5</sup> and can be used by anyone free of charge to produce different types of reports.

**Ireland** uses existing data from the Business Register in order to create a profile of enterprise demography and employment for the tourism industries at a county level (OECD 2016). Based on data from the Business Register, the Central Statistics Office (CSO) compiles statistics on business demography, generates indicators of entrepreneurial activity and aims to assess the contribution of new enterprises to jobs creation. The variables available from the Business Register include the location, legal status, turnover and size of enterprise, as well as number of employees and persons engaged. The resulting statistics include information on the total number of active enterprises, enterprise births and deaths, and an estimation of tourism businesses' growth and life expectancy rates. The CSO also generates indicators of entrepreneurial activity, factors affecting entrepreneurial activities and the contribution of new enterprises to jobs creation. It is important to note that the data only concerns the supply side of tourism industries and does not take into account the effects of actual tourism consumption on employment and entrepreneurial activity.

As an important measurement, the statistical analysis yields the Tourism Dependency Ratio, i.e. the ratio of the tourism industries to the total economy of a particular region and variable (enterprise population, total employment, etc.). To this end Business Register data are combined with other administrative data sources. The Tourism Dependency Ratio allows for comparing different regions by the relative importance of tourism industries for the particular county, and by the importance of tourism-related employment out of all jobs in a particular region. The data also enable a more detailed analysis of the composition of tourism employment (e.g. the share of food and accommodation vs. transport or culture and arts).

According to [31], the main benefit of Ireland's register-based approach is the low cost of compiling the statistics as the data often already exists in company registers. However, the Irish data also has shortcomings since no data is available on the exact business location of enterprises. The geographical breakdown of companies is thus an approximation based on the address where enterprises are registered for taxation purposes [31].

**New Zealand's** Regional Tourism Indicators (RTI) initiative measures international and domestic tourism spending using electronic debit, credit and charge card transaction data. The aim is to understand the trajectories of visitors from different markets, tourism consumption habits (including seasonal changes) and the impact of particular events. The approach also allows to observe the importance of different visitor markets for a given region over time. The data are compiled monthly from two sources: international data from Paymark and domestic data from the Bank of New Zealand [31]. Domestic tourism spending is defined as all spending by cardholders outside their area of residence (with some exceptions – see [31] for more details). The selling merchants are classified into different types of tourism industries, such as accommodation, transport, cultural and recreational services, etc.

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<sup>5</sup> <http://www.mtc.gov.on.ca/en/research/treim/treim.shtml>

RTI is presented as an index, comparing monthly tourist spending with an average month in 2008 as the baseline. It therefore helps understand spending dynamics over time rather than absolute figures. The main advantage of the index is that it allows regional tourism organizations to analyse the effectiveness of their promotion efforts and better target tourist markets [31]. A key shortcoming is that the index only relies on card terminal data, excluding cash transactions, internet sales, prepaid expenditure, transactions made by New Zealand's residents overseas, and corporate credit cards [31]. Originally, RTI data was not adjusted for inflation. However, improvements to the method now also make it possible to estimate actual dollars spent and break estimates down by region, tourist country of origin and product type. Following the dynamics is further simplified by the use of interactive web graphics.

In sum, there are five key economic impact assessment frameworks that countries commonly used for assessing economic impacts of travel and tourism. While ETIS and TSA provide an instrument for measuring the direct economic effects of tourism, the methodologies of WTTC/Oxford Economics and OECD also assess the indirect and induced economic effects that occur due to linkages between different productive activities and industries. These linkages are important to measure since they are crucial in maximising the benefits of (cultural) tourism. Most of the reviewed analytical frameworks are limited to measuring monetary transactions, whereas the TSA also encompasses the (imputed) value of non-monetary transactions related to tourism consumption. The concept of value-added seems to be gaining more importance in economic impact assessments and is especially prominent in the OECD's TiVA framework, which explicitly accounts for the global value chains perspective. One of the major drawbacks of the existing frameworks is that they have been designed to aid the measurement of tourism impacts at the national level, whereas in practice a lot of tourism planning and development happens at the regional or local level. In order to supplement national-level impact assessment frameworks, several countries and regions are developing sub-national approaches to assessing tourism impacts. Many of these rely on versions of the Regional Tourism Satellite Accounts (RTSA), which in itself is still a developing methodology.

## 4 Sources of Sustainable Economic Development and Implications for Cultural Tourism

In the following chapter, the key elements of contemporary economic development discourse are summarised. We are in particular interested why the different parts of the world continue to experience very different living standards. Building on history of economic thought and on the frontier economics, we argue that all economic activities are not the same in terms of their potential to foster an increase in living standards (section 4.1). We emphasise the importance of clustering and systemic interactions in increasing and capturing the economic value added (4.2). We address the implications of the global value chains that have emerged due to the ICTs and market liberalisation (4.3). Examples are given of the common and novel ways to measure and predict impacts of economic activities and provide insights how these relate to cultural tourism more specifically.

### 4.1 Qualitative Difference of Economic and Cultural Tourism Activities

The sources of sustainable economic development have been the central theme in theories of economic growth and economic development since their emergence. Reinert [37], [38] convincingly shows how economic thought has changed over the last 500 years, to converge around the idea of qualitative difference of economic activities. As Hidalgo and colleagues observe: „poor countries specialize in goods intensive in unskilled labour and land, whereas richer countries specialize in goods requiring infrastructure, institutions, and human and physical capital” [39]. The recognition that all economic activities are not qualitatively the same is central to evolutionary economic theory and evolutionary economic geography that study how and why the economy changes, and explain structural change in economy, change in innovation processes and systems; technological and institutional change (e.g., [40]–[42]). The focus of evolutionary economic theory is on

- economic dynamics as a continuous process, in which new conditions are generated endogenously out of the economic system;
- history as economic development is also influenced by past developments (path dependency);
- innovation, i.e., introduction and diffusion of new products and services, and organisational arrangements.

Evolutionary economics is interested in particular in these innovative activities on the level of an enterprise, where skills and tacit knowledge (individual or team competencies) are fostered and maintained by the firm. For innovation processes to succeed, different competencies have to exist on a company level, including technical, managerial, and marketing. Thence, innovation management studies put a lot of attention on studying the capabilities of companies to build internal competencies in a dynamic environment [43], [44].

Generally, a business innovation is defined as “a new or improved product or business process (or combination thereof) that differs significantly from the firm's previous products or business processes and that has been introduced on the market or brought into use by the firm” [45]. It is central to improvements in living standards and is influenced by the socio-economic context. It is important to note that innovation can originate from many sources, including engineering, design and other creative work activities; marketing and brand equity activities; intellectual property (IP) related activities; employee training activities; software

development and database activities; activities relating to the acquisition or lease of tangible assets; innovation management activities; research and development (R&D) activities.

The Community Innovation Survey (CIS), which is the most representative European survey of innovation activity in enterprises, is also addressing these aspects. CIS provides information on the innovativeness of sectors by type of enterprises, on the different types of innovation and on various aspects of the development of an innovation [46]. It is worthwhile to explore its suitability for studying the innovative activities of cultural tourism companies in various European regions.

As noted earlier, the sources of innovation are much more heterogeneous than just R&D. Still, considering the potential of R&D to result with path-breaking innovation and contribution to economic development, a lot of attention has been put in innovation studies and policies on the R&D-intensity of innovation activities. The first widely acknowledged work on the nature, sources and patterns of innovation was published in 1984 [47]. According to this there are four classes of industries:

- Science based industries include sectors where innovation is based on advances in science and R&D (such as the pharmaceutical and electronic industries); research laboratories are important, leading to intense product innovation and a high propensity to patent.
- Specialized supplier industries include the sectors producing machinery and equipment. Their products are new processes for other industries. R&D is present, but an important innovative input comes from tacit knowledge and design skills embodied in the labour force. Average firm size is small, and innovation is carried out in close relation with customers.
- Scale intensive industries include industries where scale economies are relevant (automotive and basic metals) and a certain rigidity of production processes exists, so that technological change is usually incremental. Important process innovation coexists with new product development.
- Supplier dominated industries include traditional sectors (such as food and textile) where small firms are prevalent and technological change is introduced through the inputs and machinery provided by suppliers from other industries. Firms in this group do not carry out much R&D or other innovative activities.

Dodgson and colleagues [48] have developed the above Pavitt's taxonomy further. They distinguish also information-intensive industries (such as finance, travel), where ICT solutions are the source of the competitive edge.



**Table 4.1 – Industries and sources of innovation [48]**

	<b>Supplier-dominated</b>	<b>Scale-intensive</b>	<b>Information-intensive</b>	<b>Science-based</b>	<b>Specialized suppliers</b>
Typical core sectors	Agriculture Services Traditional manufacturing	Bulk materials Automobiles Civil engineering	Finance Retailing Publishing Travel	Electronics Chemicals Drugs	Machinery Instruments Software
Main sources of technology	Suppliers Learning from production	Production, engineering Learning from Design offices Specialized suppliers	Software and systems departments Specialized suppliers	R & D Basic research	Design Advanced users
Main tasks of technology strategy	Use technology from elsewhere to strengthen other competitive advantages	Incremental integration of changes in complex systems Diffusion of best design and production practice	Design and operation of complex information processing systems Development of related products	Exploit basic science Development of related products Obtain complementary assets Redraw divisional boundaries	Monitor advanced user needs Integrate new technology incrementally

Extensive empirical work, led by the OECD, has also been carried out on the classification of manufacturing industries according to R&D-intensities (e.g., [49]–[51]).

However, application of the above analytical approaches to service industries directly remains complicated. As noted by the OECD – “direct R&D intensities are not much help for service activities. Instead, other indicators such as skill intensity (e.g. education levels in industry x occupation matrices) and indirect R&D measures such as technology embodied in investment or investment in ICT goods by industry must be explored” [50].

Innovation researchers have distinguished between the science-based STI (Science, Technology, Innovation) and the experience-based DUI (Doing, Using, Interacting) modes of innovation. The former is more characteristic to science-based (high-tech) industries while the latter is more suitable for analysing innovation in traditional industries. In DUI-mode it is crucial to foster organizational and inter-organizational learning and increase cooperation between (in particular) producers and users [52], [53]; innovation in (cultural) tourism sector is primarily based on an experienced-based DUI-mode [54].

Table 4.2 – STI and DUI policies for regional innovation systems [53]

Innovation mode supported	
STI mode (science driven)	DUI mode (user driven)
<p><i>Aim:</i> Increase the R&amp;D capacity of the actors in the system and increase cooperation between firms and R&amp;D organisations</p> <p><i>Typical innovation policy:</i></p> <ul style="list-style-type: none"> <li>- Increase the R&amp;D capacity of organisations</li> <li>- Support joint R&amp;D-projects between firms and universities.</li> <li>- Support higher education programs</li> <li>- Subsidies for R&amp;D infrastructure (laboratories, research and technology centres, research groups etc.)</li> <li>- Support (financial) for increasing mobility between academia and industry</li> <li>- Support for commercialization of research results</li> </ul>	<p><i>Aim:</i> Foster organizational and inter-organisational learning and increase cooperation between in particular producers and users</p> <p><i>Typical innovation policy:</i></p> <ul style="list-style-type: none"> <li>- Support on-the-job learning and organisational innovations</li> <li>- Matchmaking activities and building and sustaining existing networks</li> <li>- Stimulate trust building and joint innovation projects between actors in the value chain (producers-suppliers-users-consumers).</li> <li>- Stimulate joint projects between competing and auxiliary businesses (e.g. food-health)</li> </ul>

There is an increasing body of research developing taxonomies of service industries (e.g., [55], [56]). Bogliacino and Pianta [57] have developed the following categorisation:

- Three service industries – communications, computer and related activities, and R&D – can be classified as science-based as they have large R&D intensity. They also have the largest innovative share of turnover.
- Specialised suppliers' services have non-negligible R&D, considerable innovative turnover and are less focused on labour cost reduction, due to the role played by human resources and embodied knowledge into the innovative effort.
- Financial intermediation, insurance and related financial industries are classified as scale and information-intensive; they are characterized by scale economies and have some of the largest expenditure on machinery per employee.
- Supplier dominated industries, such as trade, activities of trade agencies, hotels, are less intensive in overall innovative efforts.

**Table 4.3 – Innovative effort of services industries [57]**

Industry	R&D exp per employee	Machinery exp. per employee	Labour saving strategy (%)	Innovative turnover (%)
<b>Science based—SB</b>				
Average SB manufacturing	9.03	2.51	33.67	33.83
Communications	0.72	1.15	18.36	24.59
Computer and related activities	2.40	0.86	18.94	26.88
Research and development	7.9	1.18	22.83	35.56
<b>Specialised suppliers—SS</b>				
Average SS manufacturing	4.47	1.26	27.83	19.89
Real estate activities	0.17	0.4	15.01	5.53
Renting of machinery and equipment	0.13	0.68	14.90	8.31
Other business activities	0.22	0.12	15.04	11.01
<b>Scale and information intensive—SII</b>				
Average SII manufacturing	1.65	2.78	28.00	15.76
Financial intermediation, except insurance and pension funding	0.61	0.76	23.66	13.05
Insurance and pension funding, except compulsory social security	1.75	1.34	27.05	17.55
Activities auxiliary to financial intermediation	0.63	2.35	17.97	6.48
<b>Suppliers dominated—SD</b>				
Average SD manufacturing	0.50	1.11	24.09	12.84
Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel	0.02	0.20	18.15	10.23
Wholesale trade and commission trade, except of motor vehicles and motorcycles	0.28	0.41	13.01	7.10
Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods	0.10	0.13	10.85	4.44
Hotels and catering	0.02	0.17	13.06	5.67
Inland transport	0.11	0.66	11.47	6.44
Water transport	0.38	4.21	15.72	4.19
Air transport	0.07	2.23	16.38	13.49
Supporting and auxiliary transport activities; activities of travel agencies	0.65	1.28	15.70	7.06

Consulting companies and policy analysis organisations are also applying similar approaches. For example, sectors are classified according to their factor intensity (labour, capital, and knowledge), which characterise the typical source of competitive advantage (Figure 4.1).

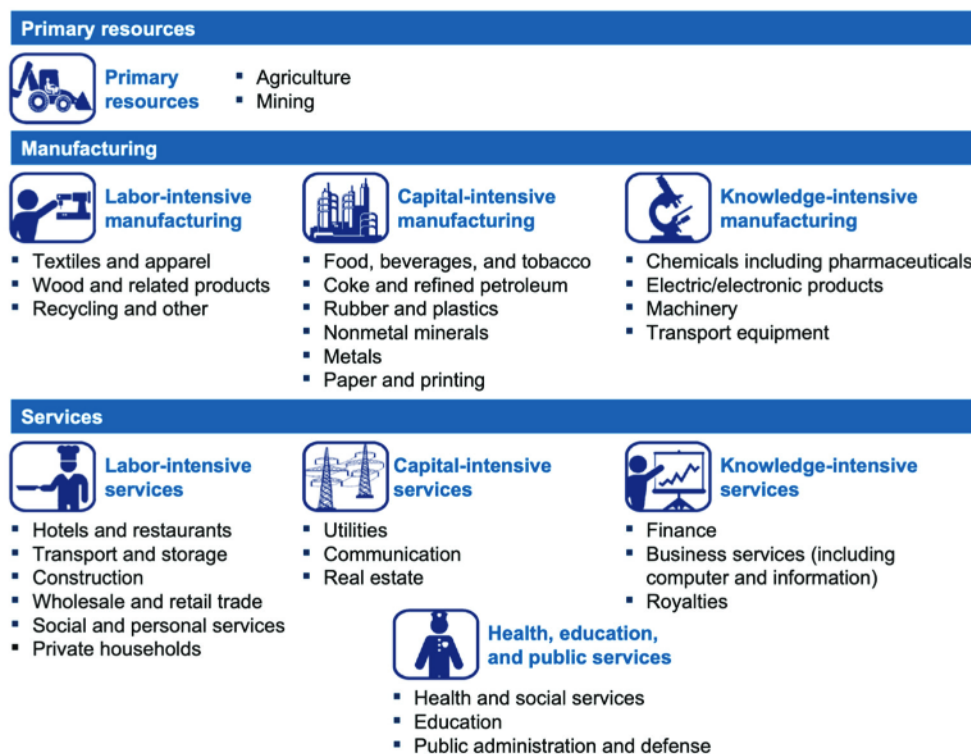


Figure 4.1 – Factor-intensity–driven view of the economy [58]

Next to analysing R&D investments and the main sources of technology for innovation, another key approach in evolutionary economics is the analysis of trade data. It has resulted with understanding that exports can be categorized into technological classifications – such as low, medium-low, medium-high, and high technology. Export structures, being path-dependent and difficult to change, have major implications for growth and development [59].

Trade data, and more specifically identification of interrelated products and product groups, where a region or country holds a substantial share of the world market, is usually the basis for detecting and analysing industrial specialisation [60]. New analytical concepts – such as product space (Figure 4.2) and economic complexity analysis, that approach trade data with network analysis methods – have emerged in prestigious academic research journals, such as Nature and Science (e.g., [39], [61], [62]).

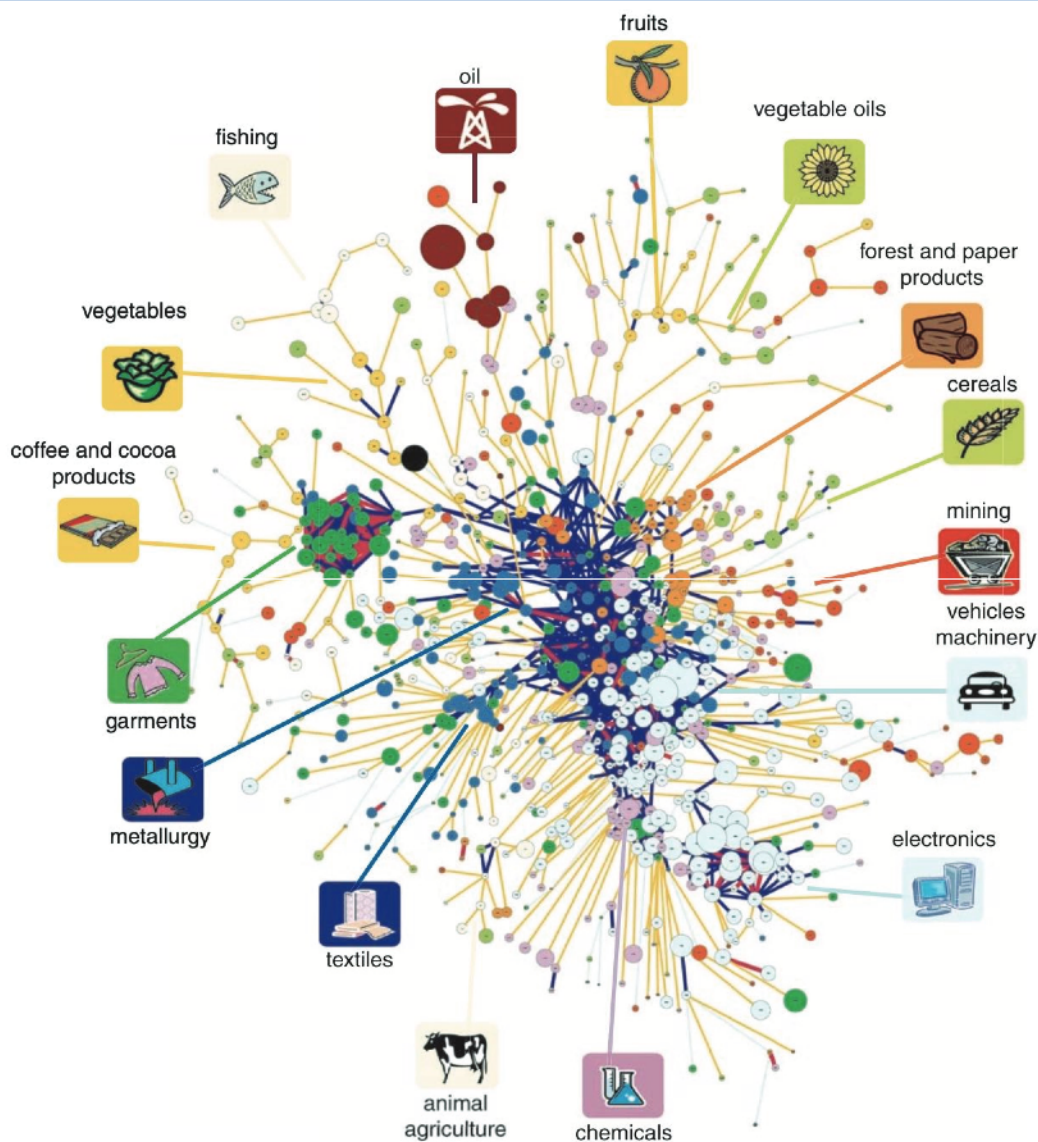
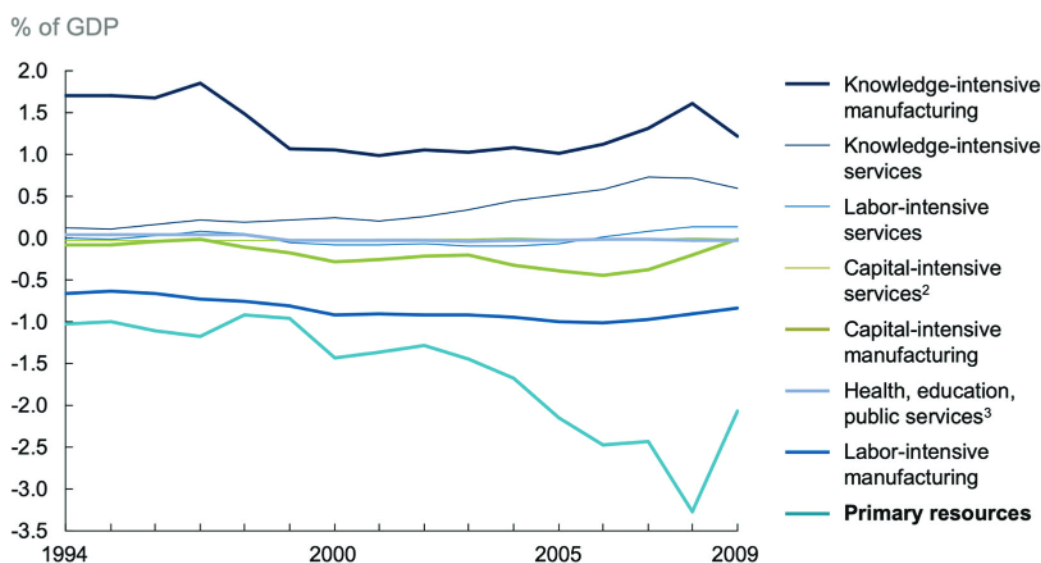


Figure 4.2 – Product space [39]

The great benefit of the product space approach is that it allows for analysis of: a) the outcomes of the specific economic specialisation in terms of living standards, and b) the possibilities for successful entry into new product categories and, thereby, for increasing the living standards.

The availability of data on international trade in services is, however, much more limited than the data on trade in goods. However, the available data on international trade in services, which is collected as a part of the balance of payments data, is much more limited in terms of the distinction of specific services and identification of trade partners than the data on trade in goods. Hence, the product space approach is directly applicable for analysing the trade in goods that are associated with tourism (see also section 4.2), but it would not be possible to analyse (cultural) tourism services with this approach because of the data constraints.

Overall, all of the previous studies indicate that for sustainable economic development, the economic specialisation of a country/region matters. It is found that developed countries/regions specialise in knowledge-intensive services and high-tech manufacturing, while developing countries/regions specialise in basic services, low and medium technology manufacturing [58] (Figure 4.3).



1 Excluding Luxembourg; services exports do not include Belgium and Denmark due to a lack of historical data.  
 2 Capital-intensive services exclude trade in utilities for Japan.  
 3 Majority of health and education services trade is accounted for as "travel" and therefore shown within labor-intensive services.  
 SOURCE: OECD; McKinsey Global Institute analysis

Figure 4.3 – Net exports of mature economies [58]

It follows from the previous section that travel and tourism (including cultural tourism) belong to labour-intensive and supplier-dominated services activities that are characterised by diminishing economies of scale and scope. Economies of scale for a firm involve reductions in the average unit cost arising from increasing the scale of production for a single product type, economies of scope involve lowering average unit cost by producing more types of products, but neither of these are present generally for cultural tourism. Hence, the tourism industry generally has a limited potential to bolster an increase in value added and living standards, even though it is responsible for a significant share of employment or GDP in some of the economies.

However, not all cultural tourism activities are the same in respect of their economic nature and economic impact. Elaborating on Perez's approach on the classification of products based on market segments [63], four segments can be identified:

- Basic standardised tourism activities, characterized by price competition, basic qualities, narrow unit margins and high vulnerability (similar to the production of raw materials and consumption products). Perez [63] lists beach tourism as an example of this category; in our understanding a lot of cultural tourism activities fall into this category, such as services offered by common hotels and restaurants, simple transportation services and retail.
- Specialized niche market activities, where unit prices are higher through innovation and/or brands for niche markets. Companies offering such services are focused on paying a lot of attention to marketing activities. Examples are adventure tourism, hotels and restaurants with some specific qualities (such as offering organic food).
- Customized market activities are characterised by premium prices for adapting to individual user-needs. The focus here is on customisation according to individual users, e.g., offering niche cultural events to specific groups of users (e.g., small-scale sports events and visits of cultural heritage).
- Unique tourism where premium prices can be asked for adapting to individual user-needs, combined with high unit prices through innovation and/or brands for niche

markets. Perez [63] refers to tourism in the Vatican or in the Grand Canyon as examples of this, while there has been a shift away from the originally elite customers orientation and these have developed towards the mass market. Examples of unique and customized cultural tourism examples include concerts of mega-stars, Olympics, etc.

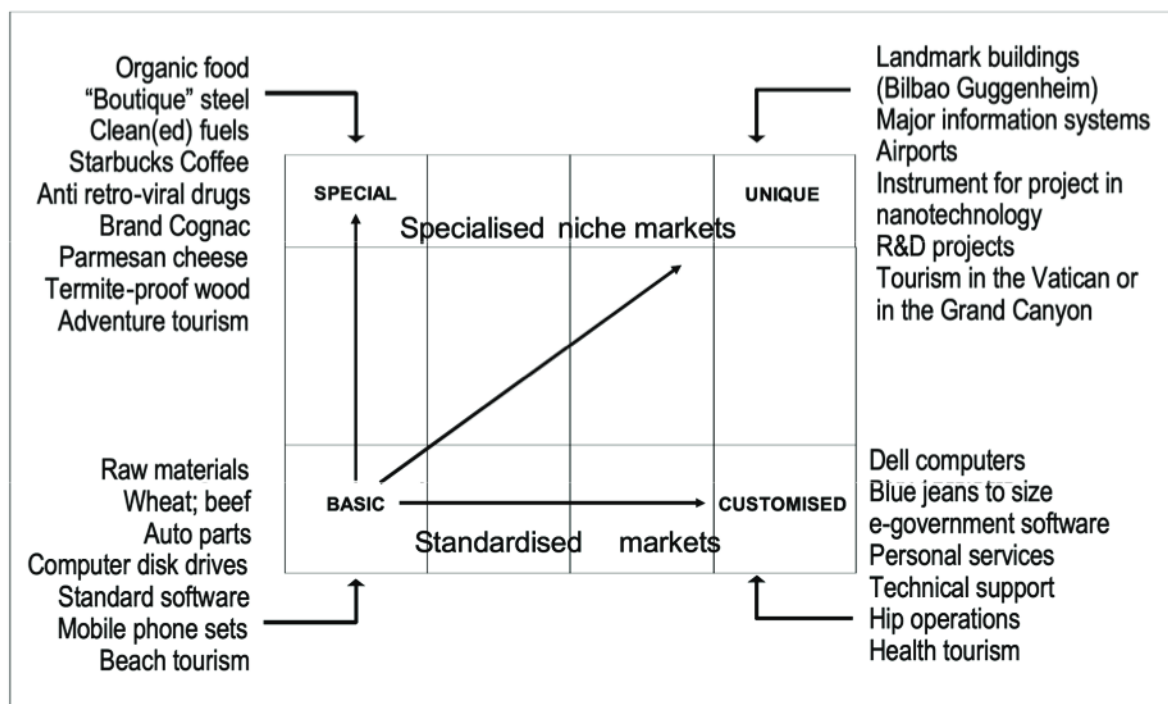


Figure 4.4 – Products in different market segments [63]

Segmentation of markets according to this logic reveals strong competition in the basic services section and low profit margins. Companies are looking for ways to develop further, but so are similar companies from other countries/regions. Such developments are partially influenced by clustering of basic tourism activities with other economic activities (explored in sub-chapter 4.2) and on the clustering between indigenous and foreign investment enterprises (sub-chapter 4.3).

## 4.2 Clustering around Cultural Tourism Services

Central to evolutionary economics is an understanding that supportive systemic interactions between the businesses and economic environment lead to virtuous economic development. Cross-innovation, systemic interactions between audio-visual media industries and tourism, for example, is observed, and the added value from location tourism has started to affect, for instance, the operation of the film industry and that augmented reality is being used in the service of the cultural heritage sector and the broader tourism sector [64], [65]. Moreover, many of the economic impact assessment frameworks identified and evaluated in chapter three analyse indirect and induced economic effects of tourism which occur due to linkages between different productive activities and industries that are crucial in maximising the benefits of (cultural) tourism, based on value chains approach. Two more additional considerations are highlighted in the current sub-chapter.

First, one of the research streams studying such interactions on data-intensive ways is related to the study of clusters. According to [60], a cluster is a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field. Clusters are considered to increase the productivity with which companies can compete,

nationally and globally and cluster development has since become a focus for many government programs [66], [67]. The Cluster approach has been applied to the analysis of a wide range of industries (the California wine cluster analysis is a well-known reference case study from the Harvard Business School), including tourism and the related industries (Figure 4.5).

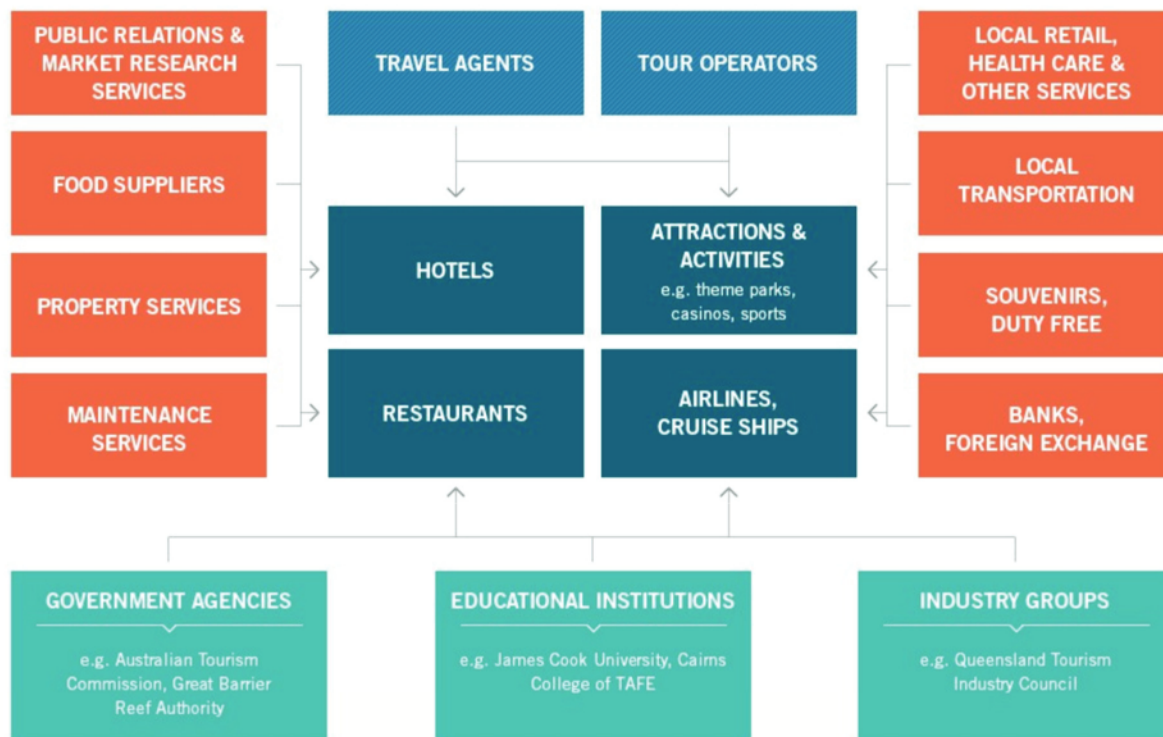


Figure 4.5 – Tourism Cluster in Cairns, Australia [68]

There are also major cluster-mapping initiatives that offer insights on the role of hospitality and tourism clusters in specific economies:

- The U.S. Cluster Mapping Project [69], providing detailed data and illustrations on the economic geography of the hospitality and tourism clusters in the United States (Figure 4.6).
- The European Observatory for Clusters and Industrial Change [70] and European Cluster Collaboration Platform [71], identifying a number of tourism cluster initiatives, but which are, unfortunately, poorer in terms of the mapping of the economic specialisation on tourism activities in Europe.



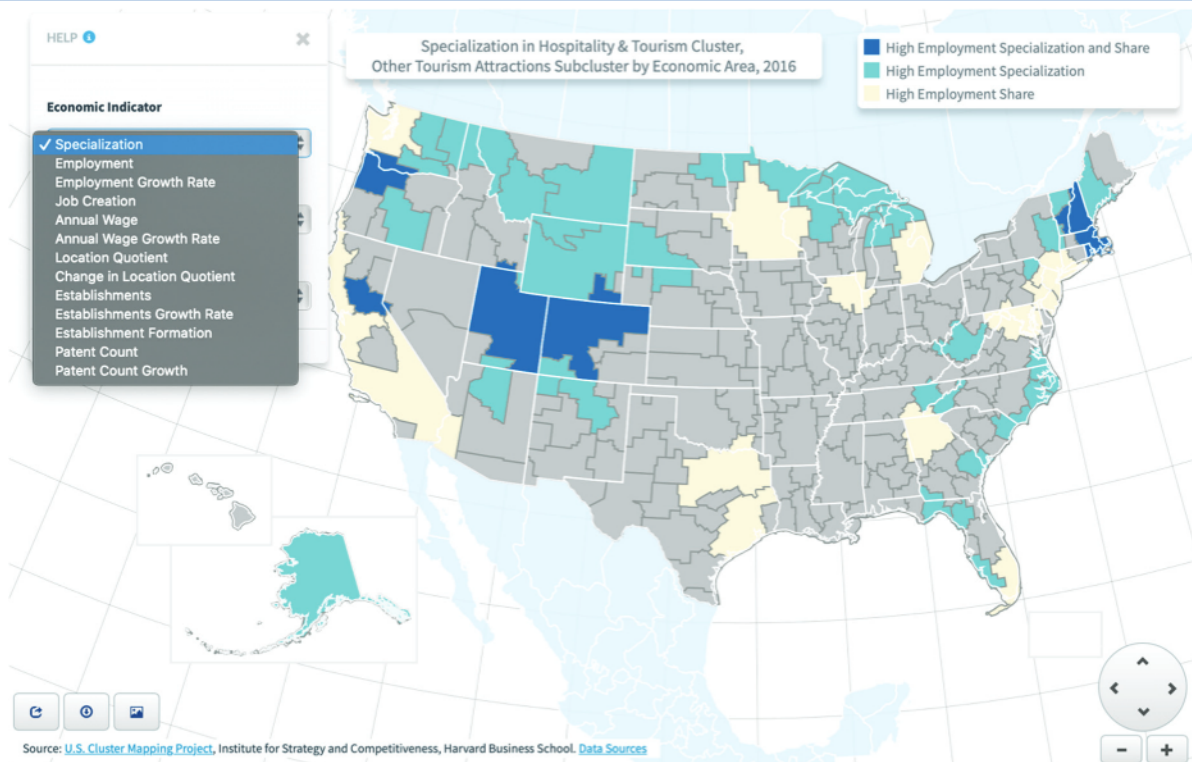


Figure 4.6 – The U.S. Hospitality and Tourism Clusters [69]

Second, the concepts of national innovation systems (NIS) [72] and regional innovation systems (RIS) [73] are today the most developed theoretical and policymaking approaches about innovation and concepts closely related to it, like [60]. NIS consists of the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify, and diffuse new technologies [72]. An activity-based framework has been developed, with ten of the most important activities taking place within NIS [74], [75]. The most widespread approach to innovation derives from looking at how market competition and policies affect various activities within the innovation system. The concept of innovation system has been also used for studying, mostly based on qualitative approaches, systemic interactions around tourism companies, e.g., for studying cultural tourism

- in the Nordic countries [76];
- in regions: Costa Brava Centre (Mid-Costa-Brava) in Catalonia [77];
- in peripheral regions [78];
- in the context of an event, The Roskilde Festival, with the focus on how innovators in the field of managerial systems, technologies and services use it as test benches for new ideas [79].

### 4.3 Global Cultural Tourism Value Chains

One of the economic impact assessment frameworks identified and analysed in Chapter 3 – OECD’s Tourism Trade in Value Added – analyses specifically the role of tourism in global value chains in light of increasing globalisation and international fragmentation of the production and consumption of tourism.

Indeed, a basic feature of the current ICT paradigm is the trend towards globalisation, towards facilitation of heterogeneity, diversity, and adaptability, which leads to market segmentation and niche proliferation as well as to production disaggregation and segment relocation [80]. Thus, the industry value chains and clusters should be analysed in broader

cross-border settings or, depending on the characteristics of the particular industry, possibly as global value chains [81]–[83].

The growing use of outsourcing and the breaking up of various production functions have created strong de-agglomeration pressures, both in highly industrialized as well as developing countries [84], [85]. While larger regions and nations are somewhat more hedged against imminent risks in the current paradigm, these processes have become the key challenge for many weaker national or regional economies whose dependency on international markets and production networks grows. Large manufacturing production units and mass employment are replaced by highly specialized networks that operate and source production and knowledge, often supra-regionally or even globally, creating a vicious cycle of increasing competition with pressures to cut costs and lower wages, thus luring foreign investors who often bring few fruits to the specific location yet demand extensive concessions (in taxes, etc.). As a result, enclave economies and de-linking effects emerge [86]. At the same time, the ICT paradigm enables the creation of niche production that has the potential to become supra-regional or even global.

These trends have resulted with rapid growth of the research on global value chains. GVCs account for almost 50% of global trade, largely driven by the manufacturing sector, but GVCs have also expanded rapidly in services [87] (Figure 4.7).

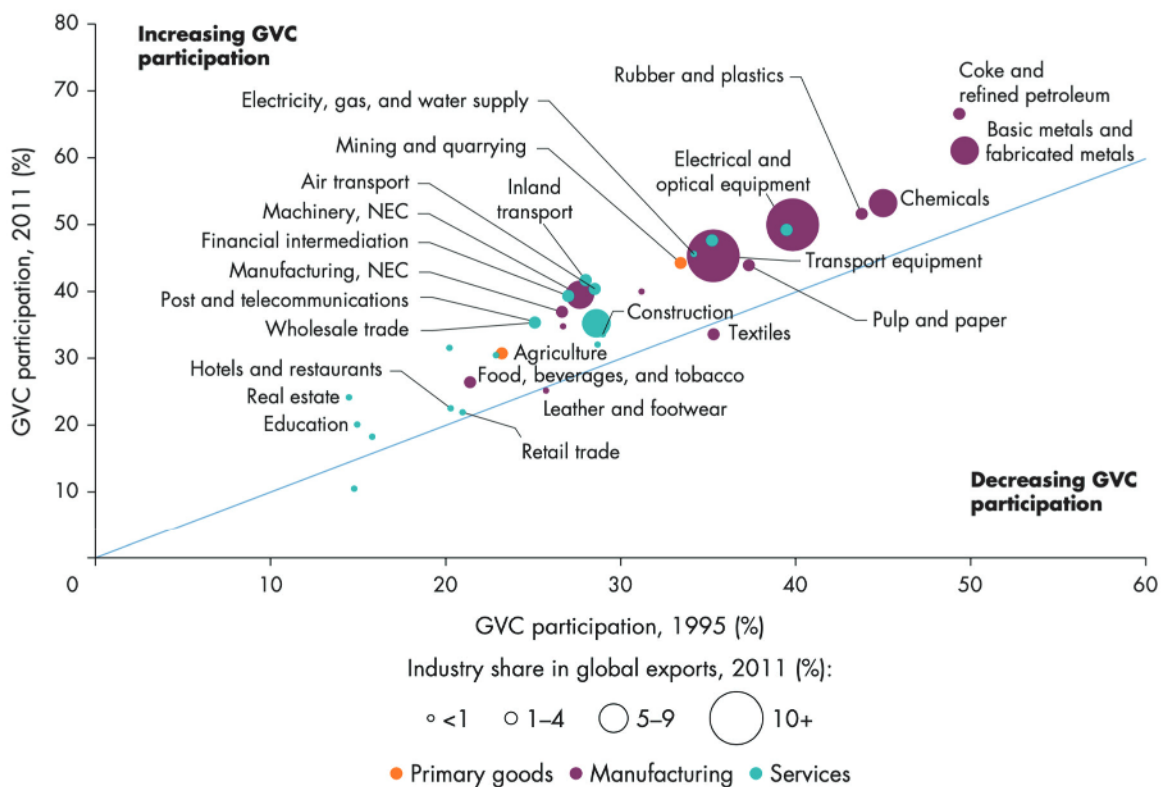


Figure 4.7 – GVC participation by sector, 1995 and 2011 [87]

Tourism global value chains consist of consumers (or end markets), distribution intermediaries, transport and other service providers, characterised by the communication flows and consumer expenditures through the chain [88]–[91]. Hence, it will be important to consider the market power of the cross-border service providers vis-à-vis local destination management organisations and cultural tourism attractions themselves.

In conclusion, clusters, GVCs & linkages between foreign-owned and domestic firms are important. Often, when there are no linkages between foreign-owned international hotel

chains and domestic firms in less developed countries, this leads to little or no spill-overs and limited contribution of the tourism to economic development. Furthermore, traditional services require often physical proximity to a client and are therefore difficult to export, which makes linkages between tradable and non-tradable industries important. Also, how cultural tourism development would lead to scalable business models remains a critical issue from the economic impact perspective.

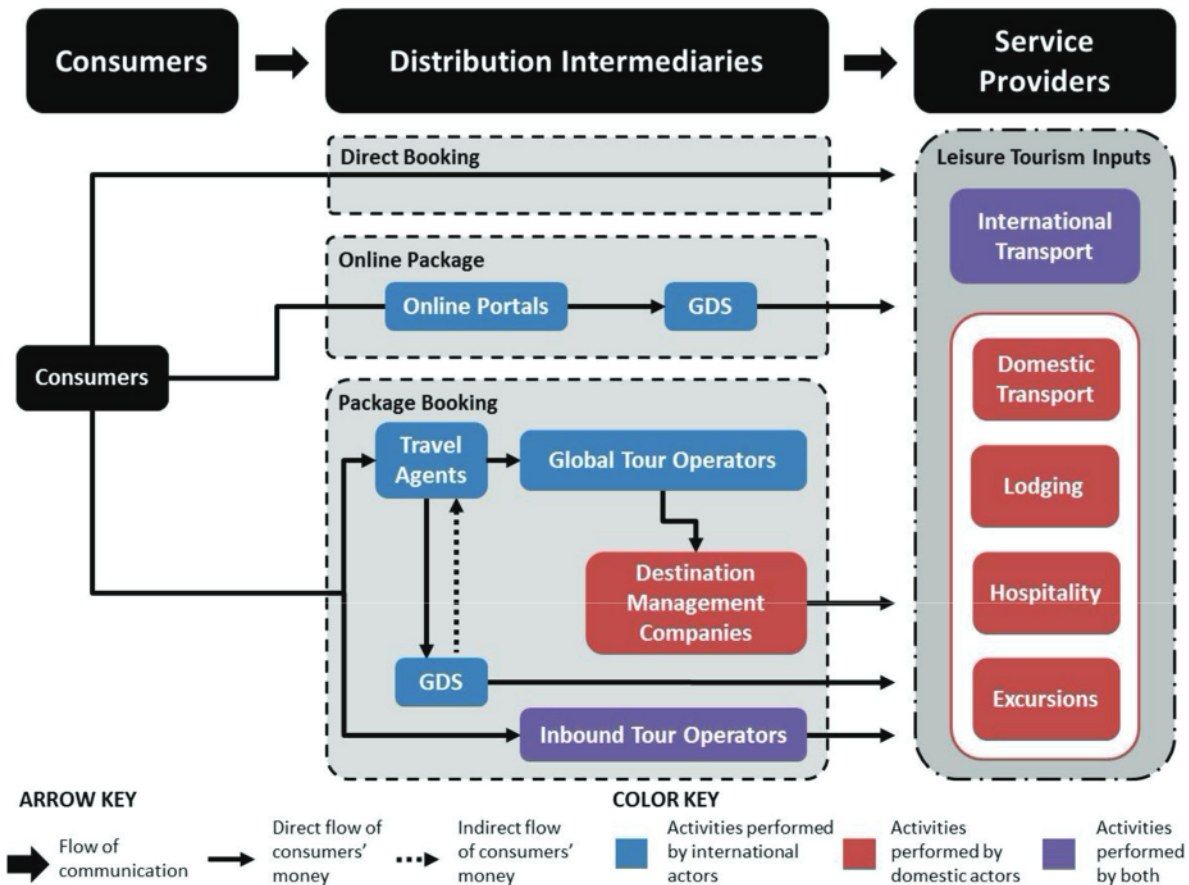


Figure 4.8 – The leisure tourism GVC [92]

Concerns have been raised over the distribution of economic benefits between different players of the GVCs, mostly in developing countries and regions. For example, it is concluded that the position of Tajik tourism services is weak as international tourist organizations and agencies frequently bypass national tourist organizations and agencies (that lack marketing and networking skills and have lack of professionalism and inadequate understanding of international markets) and book the tourist services directly from their providers [93]. Or, as stated by Daly on the case of Africa: “While the traditional package booking distribution channel remains strong, the limited domestic demand for tourism in Africa requires domestic actors to rely on global tour operators to provide customers, which provides those companies with a high degree of market power. It also poses the risk that weak backward linkages with supporting industries will cause the economic gains associated with tourism to accrue to foreign actors” [94].

At the same time, global operators of electronic direct booking channels have turned into important actors, turning global corporations, such as AirBnB, Booking, or TripAdvisor into intermediaries controlling and profiting from most transactions [95]. They have also challenged the global tour operators, such as Thomas Cook [96]. Interestingly, however, as

noted by Reinert [97], in the hotel business, ICTs have caused more perfect information leading to falling margins and increased downward pressures on wages and profits.

In sum, the discussion of the key elements of contemporary economic development discourse highlights that all economic activities are not the same in terms of their potential to foster an increase in living standards. What is also important is the clustering and systemic interactions in increasing and capturing the economic value added of various economic activities. Also, global value chains have emerged and gained in importance. This analysis confirms that more complex economic impact assessment frameworks discussed in Chapter 3 are suitable for understanding economic impact (of cultural tourism) - the methodologies of WTTC/Oxford Economics and OECD assess the indirect and induced economic effects that occur due to linkages between different productive activities and industries, and TSA also encompasses the assessment of the value of non-monetary transactions. The concept of value-added seems to be gaining more importance in economic impact assessments and is especially prominent in the OECD's TiVA framework, which explicitly accounts for the global value chains perspective, in line with the focus of economic development analysis.

## 5 Economic Impact Assessment of Cultural Tourism in the Piloting Regions

### 5.1 Introduction of the Piloting Regions

To examine the extent of tourism and how piloting regions apply different assessment frameworks in planning and measuring the economic impacts of tourism, input was received from 15 IMPACTOUR pilots. This section describes how the pilots monitor and measure the economic impacts of cultural tourism and what challenges they have met in the process. Some general background information on the pilot sites is given in Table 5.1.

Table 5.1 – Overview of IMPACTOUR pilot sites

Pilot name	Country	Population	Area	Nature of region	Nature of cultural tourism
<b>Aldeia dos Biscoitos</b>	Portugal	1,400	27 km <sup>2</sup>	Civil parish on the Terceira island in the Azores	Historic-cultural and religious sites, events and festivals, wine tourism
<b>Camino de Santiago</b> (municipality of Sahagún)	Spain	2,800	124 km <sup>2</sup>	Rural municipality on the Camino de Santiago pilgrimage route	Mostly religious-spiritual, but also historical-artistic, gastronomic and enological
<b>Chemin d'Arles</b> (region of Occitania)	France-Spain	5,900,000	72,724 km <sup>2</sup>	Region on the Camino de Santiago pilgrimage route	Mostly religious-spiritual, but also historical-artistic, gastronomic and enological
<b>Chemin de Compostelle en Aveyron</b>	France	280,000	8,735 km <sup>2</sup>	Department on the Camino de Santiago pilgrimage route	Mostly religious-spiritual, but also historical-artistic, gastronomic and enological
<b>Kyperounta</b>	Cyprus	1,500	11 km <sup>2</sup>	Mountain village, mainly agricultural	Architecture, religious monuments, cultural events, gastronomy and wine
<b>Municipio 2 di Milano</b>	Italy	155,000	13 km <sup>2</sup>	Urban administrative zone	Historical architecture, parks
<b>Palentian romanesque</b> (Aguilar de Campoo municipality)	Spain	6,800	237 km <sup>2</sup>	Municipality on the Northern Way of Camino de Santiago	Artistic and cultural heritage, festivals and sports

<b>Route of the Romanesque</b> (Sousa, Tâmega and Douro)	Portugal	520,000	1,988 km <sup>2</sup>	Region with rich nature between the coast and the northern interior of Portugal	Outdoor sports, religious tourism, gastronomy and wine
<b>Route of the Romanesque</b> (Saxony-Anhalt)	Germany	2,400,000	20,446 km <sup>2</sup>	Primarily agricultural region	Historical-cultural sites, music events and festivals
<b>Sassi</b> (city of Matera)	Italy	60,500	390 km <sup>2</sup>	City in Southern Italy, UNESCO World Heritage site	Historical-cultural, most prominently the historical Sassi districts
<b>Tartu county</b>	Estonia	153,300	3,349 km <sup>2</sup>	Region in the South of Estonia encompassing the city and county of Tartu	Historical-cultural heritage incl. Russian Old Believers and Estonian peasant cultures, festivals and fairs
<b>Trebinje</b>	Bosnia-Herzegovina	29,198	904 km <sup>2</sup>	Border city in the southernmost part of the Republic of Srpska region in Bosnia-Herzegovina	Cultural heritage, Old Town, events and festivals
<b>Trikala Prefecture</b>	Greece	131,085	3,376 km <sup>2</sup>	Rural region in the north-western part of Thessaly	Religious-cultural and archaeological sites, gastronomic tourism, festivals
<b>Vidzeme</b>	Latvia	1,000,000	19,792 km <sup>2</sup>	Socio-cultural region encompassing the capital Riga and the surrounding area	Heritage sites, coastal pilgrimage route, gastronomy, festivals
<b>Võro county</b>	Estonia	36,133	2,733 km <sup>2</sup>	Rural region in South of Estonia	Distinct cultural heritage of the Seto and Võro people, folk traditions, food and festivals

The piloting regions whose perspective is represented in this section cover ten European countries, including cross-border regions. While several piloting sites in France and Spain represent municipalities and regions on the famous pilgrimage route of Camino de Santiago (Way of St James), the pilots overall comprise a variety of sizes (from small villages to large socio-cultural regions) and different types of cultural tourism.

## 5.2 Importance of Economic Goals in Cultural Tourism Strategies

Based on the pilots' self-assessment, economic development is clearly a first priority when developing tourism strategies – all pilots consider economic goals either important or very important in the context of tourism development. Economic goals are followed by environmental and social goals. The importance of environmental goals has considerably increased in the recent years with several pilots citing their increased focus on the environmental sustainability of tourism (the social and environmental aspects of cultural tourism are discussed in more detail in [1]).

Some of the commonly mentioned economic goals include fostering economic growth, attracting new tourism markets, developing local and regional markets, stimulating the creation of companies in the tourism sector and upgrading local economic activity, e.g. by providing incentives to local cooperatives and promoting the activities of local cultural institutions and small businesses. Several also mentioned the goal of strengthening the structures of the creative economy, which is strongly linked to cultural tourism. One of the common goals concerns reducing the seasonality of tourism and improving the cultural tourism offer to decrease dependence on 'high' and 'low' tourism seasons. Some pilots also mentioned the creation of (sustainable) jobs as a social goal, which also has economic implications.

Cultural tourism in the piloting regions seems to be shifting towards prioritizing sustainability and "slow tourism", although most pilots did not report having specific strategies and goals in place to promote the development of sustainable cultural tourism. Some pilots also mentioned the lack of linkages between different types of strategic goals – for example, heritage preservation policies (which understandably have a high impact of cultural tourism) tend to focus on restoration and cultural goals but miss an economic focus.

In many cases, pilots have a general understanding of what they want to achieve but have not set specific time-bound economic goals and indicators. There are, however, a few exceptions; for instance, the Route of the Romanesque pilot (Portugal) states that in the next ten years, the region aims to grow at an annual rate of 10% in revenue and 8% in overnight stays, in addition to reducing seasonality, increasing occupancy rates and creating more value for companies. The Route of the Romanesque in Saxony-Anhalt (Germany) also distinguishes between short-term and long-term goals, with the former including increasing tourist numbers and securing constant employment, and the latter focusing more on establishing local and regional markets. At the same time, improving the competitive position of the region as a cultural tourism destination is considered a priority both in the short and long run.

Regardless of the specificity of the economic goals, several pilots pointed to the disruptive effects of the global Covid-19 crisis on (cultural) tourism and economy. Pilots state that the virus emergency has rendered their former goals largely irrelevant due to the need to focus on the immediate recovery from the crisis and restoring pre-virus visitor numbers as soon as possible. As one strategy, pilots are making efforts to shift their focus from attracting foreign tourists to increasing local and domestic tourism. In some regions (e.g. Sassi in the city of Matera in Italy), the crisis is regarded as having created an enormous pressure for innovation in the tourism sector. As many businesses are going bankrupt, they are expected to be replaced by new types of start-ups in cultural tourism (following also the vision built around the concept of 'temporary citizenship' (see Section 2 above). In order to foster innovation, Sassi is focusing on training tourism operators in entrepreneurial skills and digitalization strategies

and is working to create collaborative networks between public and private actors as well as tourism and creative industries.

In fact, Sassi is also one of the few pilots that had an explicit strategic goal of fostering innovation in tourism even before the Covid-19 emergency. One of the cornerstones of this strategy is the creation of a technological hub to help start up innovative companies with a focus on cultural and creative industries, but the strategy also involves developing an intelligent, digital technology driven tourism monitoring system (see [6] for more information). Sassi also prioritizes fostering collaboration between different types of stakeholders to improve 'slow tourism' offers with strong socio-educational and economic impacts.

### **5.3 Methods and Practices of Assessing the Economic Impacts of Cultural Tourism**

The IMPACTOUR pilots reported an average awareness of the key economic impact assessment frameworks discussed in Chapter 3. Roughly half of the 15 pilots that gave input to this report mentioned knowing or using one or more of the frameworks. Out of the five key frameworks, the World Economic Forum's TTCI approach seems to be slightly less known than the TSA, ETIS, WTTC and OECD's TiVA.

While the frameworks are considered useful for developing an understanding of the 'bigger picture' and for the purposes of international comparison, one of the main limitations of these frameworks is that the data are often collected at the national level and not broken down to the local or regional level. This decreases the utility of these existing approaches in local-level tourism planning and monitoring. Another limitation is the generic nature of the frameworks, i.e. they are not adapted to monitoring and assessing the impacts of cultural tourism as a specific type of tourism. The datasets lack qualitative information on visitors' travel motivation that would allow for distinguishing cultural tourism from other types of tourism. As the data that is collected as part of existing statistical initiatives is commonly not broken down both by type of tourism and by region, tourism regions usually try to collect their own data by conducting specialized visitor surveys at the local level. Due to the existing limitations, pilots expressed the need for impact assessment frameworks that would be tailored to the cultural tourism domain.

Due to numerous challenges related to data collection and analysis, many pilots reported having no system in place to assess the economic impacts of cultural tourism. While many pilots do collect or use certain data to monitor general tourism flows (occasionally also other indicators such as revenues from the tourist tax or ticket sales), they are seldom able to delineate the economic impacts of cultural tourism based on the data. The main barriers hindering cultural tourism impact assessment are discussed in more detail in Section 5.4.

Despite the difficulties, some pilots do try to assess the economic impacts of tourism in their region at the general level. These assessments typically rely on indicators such as tourist arrivals and overnight stays (based on data from accommodation facilities), and tourist expenditure per day and per person (based on surveys conducted at tourist sites or exit points). In some cases, visitor counters have been placed in tourist sites to measure the number of tourists – these have turned out to be useful particularly in places with no ticket sales.

The Route of the Romanesque pilot (Portugal) has a Tourism Activity Monitoring System, which is an integrated system for collecting and processing information related to the tourism sector in the territory of Tâmega, Sousa and Douro. This system enables assessing visitors'



satisfaction, defining their profile and identifying new market segments, which supports the strategic planning of tourism. The Route of the Romanesque pilot in Saxony-Anhalt relies on the services of the Investment and Marketing Corporation, the economic development competence center in Saxony-Anhalt, that regularly evaluates official tourism statistics. However, as the data do not include visitors' travel motivation, the data cannot be used to derive the economic effects of cultural tourism. In order to extract the impacts of cultural tourism, data on tourist spending would need to be crossed with travel motivation and/or data on the number of visits to cultural sites. According to the pilots, this is currently not possible.

In Estonia, national statistics are available on the contribution of travel and tourism to the GDP, export of tourism services, overnight stays, average expenditures per day, per visit and per country of origin, transportation means and accommodation statistics. The data are obtained through visitor surveys and include travel motivation (including culture) and annual visitor numbers from museums. Hence, the Estonian Tourist Board and Ministry of Culture are able to measure the impact of cultural events – while the former measures indirect impacts and tourism expenditure, the ministry measures direct impacts created by the organizer and visitors on the spot. The national-level statistical data on overnight stays and average expenditure are also used by the Tartu piloting region for measuring the overall impact of tourism on the economy. All expenditure of those visitors who are primarily motivated by visiting cultural objects and events are counted towards the economic impacts of cultural tourism.

The departments of Gers and Haute-Garonne in Occitania receive data from event organizers on attendance and origin of visitors, and from cultural sites' ticket offices on attendance and revenue generated by the ticket sales. These allow for measuring the economic revenues generated by specific sites or cultural events. The region of Occitania (covering the pilots of Chemin d'Arles and Chemin de Compostelle en Aveyron) recently also commissioned a study from a research firm to evaluate the economic benefits of cultural and heritage tourism in the area. The study is currently ongoing.

As an innovative approach, the Sassi pilot (city of Matera) is working on installing an intelligent control and detection system of tourist flows in the historic center using sensors and cameras. Such a system would allow for an automated, close to real-time monitoring of visitor flows in specific (cultural) sites (see [6] for more information on the system). However, additional data would be needed to assess the economic impacts of visits to these sites.

## **5.4 Key Challenges in Economic Impact Assessment**

Pilots generally find it challenging to assess the economic impacts of cultural tourism. The main barriers and difficulties concern five broad categories of issues: 1) the definition of cultural tourism, 2) lack of common impact assessment methodologies adapted to cultural tourism, 3) lack and fragmentation of data, 4) stakeholder multiplicity and coordination issues, and 5) resource limitations. These are discussed in more detail below.

### **Definition of cultural tourism**

Pilots frequently referred to the technical challenge of defining and delineating what counts as 'cultural tourism' and lack of agreement on what impacts could be associated specifically with cultural tourism as opposed to tourism motivated by other reasons. The lack of clarity on definitions and basis of measurement hinders both the ability to assess the impacts of cultural tourism and comparability of the impacts across destinations and regions.

### **Lack of common impact assessment methodologies**

Due to the limitations discussed in Section 5.3, pilots perceive the need for developing standardized impact assessment methodologies for cultural tourism that can be easily implemented at the local level. Such methodologies should provide clear guidelines on how to account for the impacts of cultural tourism – for example, if a visitor's trip is motivated primarily or partly by interest in specific cultural attractions, to what extent would the visitor's expenses count as the economic contribution of cultural tourism? Similar questions emerge in relation to measuring the economic benefits of cultural tourism attractions that are offered free of charge and that generate no direct revenues from ticket sales.

Since cultural tourism sites are often managed at the regional or local level, pilots consider it important to develop common indicators that would enable an accurate assessment of both direct and indirect economic impacts at the regional or sub-regional level. This requires the availability of micro level data on the key indicators. In addition to common definitions and indicators, pilots expressed the need for tools that could be easily applied for monitoring, impact assessment and decision-making in the cultural tourism domain.

### **Lack of data**

Pilots cite lack of data as one of the major obstacles to measuring the economic impacts of cultural tourism. Sometimes the relevant data are simply not collected – for example, the European cultural routes often do not have systems to count the number of hikers on the routes or measure the quality of services or loyalty of visitors. Even in case the data are collected, relevant data are often not complete or available at a suitable level of granularity for tourism destinations to be able to acquire insights, specifically into culturally motivated tourist activity in a geographical area. Also, the data are often fragmented between various data holders at different administrative levels (national, regional, local), sectors (public and private) and types of organizations (event organizers, research institutions, etc.), who might use incompatible data models. Sometimes data owners (e.g. event organizers) may not have the skills to analyse the data themselves but may also not be allowed to share the data with third parties. A new type of problem is the lack of data on visitors who do not use official accommodation establishments but stay with friends and family or use Airbnb services. For instance, the Võru pilot in Estonia estimates that thousands of summertime overnight visitors may remain uncounted due to lack of access to these data.

### **Coordination**

Due to the fragmentation of data ownership (but also ownership of cultural sites in a region), coordination between different actors is considered one of the major challenges. In order to set up effective impact assessment systems, data from different providers should be aggregated and common methodologies and indicators should be agreed upon for collecting and analysing the data. This requires coordination and collaboration between a number of organizations.

### **Resource limitations**

Lastly, pilots' capabilities of assessing the impacts of cultural tourism is substantially limited by financial resource constraints, but perhaps even more importantly, lack of human resources. While the problem is especially prominent in small municipalities who are often understaffed, even larger piloting regions mentioned lack of know-how and capacity in data analysis as a barrier. In most cases, local-level destination management organizations do not have specific personnel in charge of the analysis. Therefore, they need to rely on analyses conducted at regional or national level, which may not always correspond to local needs. Smaller and rural destinations also lack the human resources to count visitors and

conduct visitor surveys at tourist sites. For example, many sites on the Route of the Romanesque in Saxony-Anhalt operate thanks to volunteer work, with no replacement in case of the volunteers' sickness or absence.

One pilot also mentioned the lack of data analysis skills and capacity of companies operating in the travel and tourism sector as an issue. For example, accommodation providers that rely on marketing services of large platforms such as Booking.com or Airbnb have no incentives to collect their own data to improve their promotion and marketing efforts. If they had the need to invest in marketing activities themselves, this could also stimulate more interest in data collection, analysis and forecasting.

## **6 Discussion and Conclusions**

Chapter 3 gave an overview of five key economic impact assessment frameworks that countries commonly used for assessing economic impacts of travel and tourism. Chapter 4 introduced an additional layer by analysing key themes of the contemporary economic development discourse that highlights that all economic activities are not the same in terms of their potential to foster an increase in living standards, emphasizing also the importance of clustering and systemic interactions and the role global value chains. Chapter 5 introduced findings from the IMPACTOUR piloting regions. This chapter synthesises tourism-related economic impact assessment frameworks (section 6.1) and discusses implications for the IMPACTOUR Methodology (6.2) and data sources (6.3). The Deliverable concludes with the preliminary implications of COVID-19 on the impact assessment of (cultural) tourism (6.4). Other aspects beyond economic effects, such as cultural tourism related social benefits and environmental issues are discussed further in [1].

### **6.1 Tourism Related Economic Impact Assessment Frameworks**

Academic literature, policy papers as well as feedback from the participating regions confirm that economic impact assessment has gained in importance in the travel and tourism sector over the last decade.

This report gave an overview of five international impact assessment methodologies developed for the tourism domain. While ETIS and TSA provide an instrument for measuring the direct economic effects of tourism, the methodologies of WTTC/Oxford Economics and OECD also assess the indirect and induced economic effects that occur due to linkages between different productive activities and industries. These linkages are important to measure since they are crucial in maximising the benefits of (cultural) tourism.

The World Economic Forum's TTCI is different from the others in that it assesses a country's travel and tourism competitiveness but does not measure the eventual economic impacts of tourism. Nevertheless, the value of the TTCI is in its comprehensive approach and the emphasis it places on the importance of policy and strategy in creating a favourable and attractive environment for tourism. Due to its broad approach, the TTCI is able to draw our attention to the possibilities of fostering tourism through policies that are not directly related to travel and tourism but have an impact on tourism activity. Such policies include, for example, international trade relations and agreements, environmental regulations, fostering digitalization, and the general business environment which has clear implications on the viability of the tourism industry.

Most of the reviewed analytical frameworks are limited to measuring monetary transactions, whereas the TSA also encompasses the (imputed) value of non-monetary transactions related to tourism consumption. However, the measurement of non-monetary transactions is more complicated as it requires the usage of data sources beyond the data typically collected from visitors, e.g. the estimation of rents from vacation homes. Given the emergence of new platform-type travel and tourism services (e.g., Uber or Grab ridesharing and AirBnB accommodation and experiences), assessing the effects of related monetary and non-monetary transactions is becoming more important but it remains possibly outside of the reach of official statistics.

The concept of value-added seems to be gaining more importance in economic impact assessments and is especially prominent in the OECD's TiVA framework, which explicitly accounts for the global value chains perspective. This is important as it highlights the

relationships between the trade, production and consumption of tourism services, the share of domestic and foreign value added in tourism exports, the benefits that tourism creates for national economies, and the forward and backward linkages between tourism and other industries. A better understanding of these linkages allows for the development of more targeted tourism marketing strategies to key tourism markets and a more strategic approach to developing vibrant business ecosystems that cater for and benefit from tourism.

Due to their generic nature, the transferability of these impact assessment frameworks for the economic impact assessment of cultural tourism is challenging as they do not specifically focus on cultural tourism. The TSA involves cultural services as one of the twelve tourism-characteristic product categories and cultural activities as one of the twelve tourism-characteristic industries. This allows accounting for the share of tourism in the output of the cultural activities industry and the consumption of cultural services out of total tourism consumption. The ETIS includes a very specific sector (transnational cultural routes) among its supplementary indicators but the proposed indicators are limited to the effects of cultural tourism on businesses' marketing opportunities. The development of impact assessment frameworks applicable in the cultural tourism domain thus requires combining indicators from several existing frameworks and developing additional indicators tailored to the specifics of cultural tourism. In this respect, the cultural resources pillar in the WEF's TTCI framework offers a few potentially interesting venues to explore further, e.g. looking at the economic effects of major, visitor-attracting sports events, or exploring the possibilities of using digital data (e.g. cultural tourism related web searches) for monitoring visitors' interests.

One of the major drawbacks of the existing frameworks is that they have been designed to aid the measurement of tourism impacts at the national level, whereas in practice a lot of tourism planning and development happens at the regional or local level. This is also the experience of the IMPACTOUR pilots, who expressed the need for impact assessment methodologies that could be applied at the regional and local level. In order to supplement national-level impact assessment frameworks, several countries and regions are developing sub-national approaches to assessing tourism impacts. Many of these rely on versions of the Regional Tourism Satellite Accounts (RTSA), which in itself is still a developing methodology.

Despite these efforts, regional-level estimation is a challenging exercise due to several reasons. First, the definition of the economic territory or a region and assigning its resident units to the particular region is a challenge on its own. Problems emerge, for instance, in the case of multiregional enterprises whose transactions cannot easily be assigned to one or another specific territory [33]. The application of the TSA framework at the regional level also requires the redefinition of some categories, e.g. the differentiation between domestic tourism originating in the region of interest and tourism from other parts of the country (*ibid.*). The availability and quality of statistical data also tends to be poorer at the regional level, although some countries such as the EU Member States seem to be in a more favourable position thanks to the basic regional data program at the EU level [33]. Moreover, compiling a system of interrelated accounts to make up an RTSA is costly and data-intensive. Due to this, initiatives such as INRouTe [32] have suggested investments in regional tourism statistics to be justified if tourism constitutes a significant part of the economy of the given region and if it is supported by the availability of national statistics. Although the RTSA has by now been adopted or adapted by many countries, the approach still has some shortcomings. For instance, it is limited in terms of estimating the indirect and induced effects of tourism, and it is not able to show what kinds of visitors create the highest value added per trip [31]. This implies the need for tourism regions to creatively combine

frameworks such as the RTSA with novel tools and data sources, such as electronic card transaction data, which would enable to analyse which tourism markets generate the most income for a given region.

## **6.2 Implications for the IMPACTOUR Methodology**

The main ambition of IMPACTOUR project is to create an innovative and easy-to-use methodology and tool to measure and assess the impact of cultural tourism on European economic and social development and to improve Europe's policies and practices on cultural tourism. The aim is to strengthen the role of cultural tourism as a sustainable driving force in the growth and economic development of European regions.

One of the immediate challenges encountered in the preparation of the current report was related to the definition of cultural tourism. While it is generally agreed that cultural tourism is "a type of tourism activity in which the visitor's essential motivation is to learn, discover, experience and consume the tangible and intangible cultural attractions/products in a tourism destination" [18], there are differences of opinion among the participating piloting partners as well as experts in the project on what exactly is included in cultural tourism. This dynamic and potentially controversial nature of cultural tourism has also been raised earlier in the literature, e.g. regarding drug (Amsterdam coffee shops) and sex tourism (red light districts) (e.g., [14]). So, one of the immediate next steps in the project should be related to the development of the definition and increase of awareness around that definition in the project, among the stakeholders and more broadly.

Next, any further work regarding the IMPACTOUR methodology should be aligned with the existing frameworks covered previously. A good point of departure for further exploration in the forthcoming Work Packages, focused on indicators that allow to compare the performance assessment, should be Regional Tourism Satellite Account (RTSA), proposed by UNWTO. The approach is fully aligned with the national-level TSA (incl. relying on the core concepts and the supply and use tables of the SNA). The IMPACTOUR methodology should also reckon with the existing barriers and challenges related to impact assessment at the local and regional level, in particular questions about common indicators, data availability and destination management organisation's capacity of analysing the data.

Also, in Chapter 4 some important aspects were raised on the basis of contemporary discourse on economic growth and economic development, highlighting the qualitative difference of cultural tourism activities, on the importance of clustering and systemic interactions, including fostering linkages between indigenous and foreign investment enterprises, and on the global value chains. Network effects, bringing cultural attractions and other tourism motivations together, and increasing the share of local, truly unique content are the key to maximising the economic benefits from cultural tourism. Yet, only limited progress has been achieved regarding measurement of those processes and the prediction of impacts, but these are important and should be explored further in the forthcoming Work Packages.

Statistical and official information on tourism comes currently from national-level statistical offices and tourism agencies, disaggregated to the regional level, and/or from the respective regional bodies. These bodies seem to be most informed also on alternative and emerging sources of information. These organisations are important stakeholders and should be involved in the development of the methodology (and not only in the dissemination stage) as it adds to the relevance and sustainability regarding the results.

Some of the piloting regions indicated high interest in assessing economic impacts of specific (large-scale) cultural events, potentially to be explored further in upcoming Work Packages.

### **6.3 Implications for the IMPACTOUR Data Sources**

OECD [31] highlights some best practices in terms of data sources and tools that have successfully been used to compile regional accounts. These include:

- The use of existing household and visitor surveys, especially if they include large samples and are available as long time series;
- Reuse of large existing databases and private data sources (e.g. bank card transaction data), which enable combining relevant data from multiple sources at the regional level;
- The adoption of big data and other new (e.g. mobile positioning) technologies, which is regarded as more efficient than introducing new surveys;
- High-quality visitor monitoring at the local level;
- The use of specifically designed economic impact assessment models (such as the TREIM in Ontario) in addition to producing statistics.

In-line with what was raised earlier, one of the key challenges is related to obtaining cultural tourism specific data. So, in mapping and analysing potential data sources it should be considered if data is specific enough and/or how cultural tourism specific data could be extracted.

An important guiding principle of the work in the IMPACTOUR Project is related to standards. As detailed in Deliverable 8.2, “Cultural tourism, as any other activity, benefits from the adoption or guidance of relevant standards. The use of standards develops trust, respect and easier communication processes, which is the basis for a successful business development, including tourism and in particular cultural tourism” [7]. This should be continuously prioritised and in the search of relevant data sources their correspondence to standards should be considered, especially if the objective is to develop tools for comparative analysis.

As stated above, next to official statistical tourism surveys, reusing data from existing registers has increased in importance. Regarding the existing data sources business registry data particularly deserves further exploration. Company micro-level data-based analysis allows us to study economic impacts (such as value-added and employment) over longer time periods. Such data is standardised in the member states of the European Union – the Regulation 177/2008 of the European Parliament and the Council sets out a common framework for the harmonisation of the national business registers [98]. The benefit of a register-based approach is the low cost of compiling the statistics as the data often already exists in company registers; the main weakness is that the place of registration and actual activity might not overlap. Still, as exemplified by the approach in Ireland, there are benefits of reusing such data (see Section 3.6).

Further work in WP2, focused on indicators that allow to compare the performance assessment, should explore the possibilities for using existing data sources. As discussed in section four, the Community Innovation Survey (CIS) is the most representative European survey of innovation activity in enterprises, to provide information on the innovativeness of sectors by type of enterprises, on the different types of innovation and on various aspects of the development of an innovation. It is worth exploring its suitability for studying the innovative activities of the cultural tourism companies in various European regions. While there are many benefits, possible challenges are related to difficulties in identifying cultural

tourism companies and obtaining region-specific data. Also, information from some Piloting regions indicates that some smaller and more disengaged cultural tourism locations rely more on volunteers and social enterprises; so, the economic agents are different and might cause comparability problems.

The impact assessment frameworks and the data sources commonly used for measuring the impact of (cultural) tourism are foremost based on surveys. The availability of survey data gathered in regular intervals over a long time period enables more accurate assessments of the economic impacts of tourism. However, consistent survey data is not universally available and conducting surveys is costly. At the same time, open and big data and novel data science approaches are currently transforming the landscape for socio-economic policy and research. The use of novel sources of data should be considered, while the awareness regarding those is lower in the participating regions and considerable implementation barriers exist (explored in [6] in more detail).

## **6.4 Implications of COVID-19**

Travel and tourism are the sectors that have been particularly hard hit by the COVID-19 crisis, as the tourist flows halt in early 2020 and the mobility restrictions are likely to remain for months, until an effective solution is found to mitigation of COVID-19 in terms of vaccine(s) and cure.

Feedback from cultural tourism experts and the participating regions indicated that due to recent developments, economic monitoring and impact assessment is more important than ever. National and local governments need information regarding the cultural tourism sector and companies in devising policy instruments, and there is potential for learning from each other in Europe regarding the instruments that work the best.

Considering the rapidly evolving landscape, both governments and businesses are expecting close to real-time data. Yet, data collection surveys are carried out once in a while; they are expensive to carry out and, in many cases, deliver results with a significant delay. Impact assessment exercises are even more seldom and time consuming. At the same time companies are submitting tax and employment declarations often on a monthly basis. Mobile positioning data is another example of data that is available in or close to real time. Thence, administrative and other non-standard data sources should be carefully considered for more timely analysis. The above has implications in terms of the format of the delivery of analytical results – the traditional way of compiling detailed written reports is a lengthy process on its own. Thence, development of rapidly updated analytical dashboards may be an attractive alternative for rapid delivery of results.

In recent years there has been distrust of 'digital' because it has been seen as a threat to the authenticity of real heritage. COVID-19 has triggered an extraordinary rapid adoption of digital to ensure tangible and intangible heritage maintains visibility during lockdown, if not income. It is too early to tell, but behaviour will undoubtedly change, within which tourism agencies and tourists will make more use of digital alongside 'real' experiences.



## Annex A: List of Acronyms/Abbreviations

Acronym/ Abbreviation	Description
BPM	Balance of Payments
CIS	Community Innovation Survey
CT	Cultural Tourism
DUI	Doing, Using, Interacting
EC	European Commission
ETIS	European Tourism Indicator System
GDP	Gross Domestic Product
GVATI	Gross Value Added of the Tourism Industries
GVC	Global Value Chain
IATA	International Air Transport Association
IBS	Institute of Baltic Studies
ICIO	Inter-Country Input-Output
ICTs	Information and Communication Technologies
IMF	International Monetary Fund
IMPACTOUR	IMproving Sustainable Development Policies and PrActices to assess, diversify and foster Cultural TOURism in European regions and areas
INRouTe	International Network on Regional Economics, Mobility and Tourism
IUCN	International Union for Conservation of Nature
NIS	National Innovation System
OECD	Organisation for Economic Co-operation and Development
R-TIS	Regional Tourism Information Systems
R&D	Research and Development
RIS	Regional Innovation System
RTI	Regional Tourism Indicators
RTSA	Regional Tourism Satellite Accounts

SDG	Sustainable Development Goal
SNA	System of National Accounts
STI	Science, Technology, Innovation
T&T	Travel and Tourism
TDGDP	Tourism Direct Gross Domestic Product
TDGVA	Tourism Direct Gross Value Added
TIVA	Trade in Value Added
TREIM	Tourism Regional Economic Impact Model
TSA	Tourism Satellite Account
TTCI	Travel & Tourism Competitiveness Index
UNWTO	World Tourism Organization
WEF	World Economic Forum
WP	Work Package
WTTC	World Travel & Tourism Council

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