UNIVERSITY OF RIJEKA
FACULTY OF TOURISM AND HOSPITALITY MANAGEMENT

Karmen Mikulić

INTERRELATIONS BETWEEN THE CREATIVE ECONOMY AND TOURISM: EVIDENCE FROM EUROPEAN UNION COUNTRIES

DOCTORAL THESIS

Opatija, 2026.

UNIVERSITY OF RIJEKA
FACULTY OF TOURISM AND HOSPITALITY MANAGEMENT

Karmen Mikulić

INTERRELATIONS BETWEEN THE CREATIVE ECONOMY AND TOURISM: EVIDENCE FROM EUROPEAN UNION COUNTRIES

DOCTORAL THESIS

Mentor: Assoc. Prof. Dr. Adriana Jelušić
Co-mentor: PhD Prof. Dr. Larry Dwyer

Opatija, 2026.

SVEUČILIŠTE U RIJECI
FAKULTET ZA MENADŽMENT U TURIZMU I
UGOSTITELJSTVU

Karmen Mikulić

MEĐUODNOSI KREATIVNE EKONOMIJE I TURIZMA: DOKAZI NA TEMELJU ZEMALJA EUROPSKE UNIJE

DOKTORSKI RAD

Opatija, 2026.

Mentor: Adriana Jelušić, Ph.D., Associate Professor
Co-mentor: Larry Dwyer, Ph.D., Professor

The doctoral thesis was defended on_____as part of the doctoral study programme " Business Economics in Tourism and Hospitality Industry" at the Faculty of Tourism and Hospitality Management, University of Rijeka before a Committee consisting of:

1. Josip Mikulić, PhD, Full Professor, Faculty of Economics and Business, University of Zagreb, chairman
2. Marinela Krstinić Nižić, PhD, Full Professor, Faculty of Tourism and Hospitality Management, University of Rijeka, member
3. Dario Maradin, PhD, Associate Professor, Faculty of Economics, University of Rijeka, member

Acknowledgements

I would like to thank all the people who have supported, encouraged and believed in me throughout my doctoral journey. I am especially grateful to my mentor, assoc. prof. Adriana Jelušić and co-mentor, prof. Larry Dwyer, for their trust and confidence in my abilities, for their dedicated guidance, patience and constant support throughout the entire research process. Your encouraging words and faith in me have been an invaluable source of motivation. Thank you for your prompt responses in moments when I needed them most, for the open discussions about ideas and for the valuable comments that have greatly enriched this work.

I owe special gratitude to my parents, who selflessly helped care for Cvita, Bartol and Pierina, allowing me to write this dissertation peacefully and without interruption. Your love, support and presence were my foundation and greatest strength.

Cvita, Bartol and Pierina – thank you for being my daily inspiration, my endless source of joy and a reminder of what truly matters in life. Your curiosity, smiles and hugs gave me strength in moments of fatigue and doubt. Because of you, I learned, grew and persevered.

My deepest gratitude goes to Ante, my husband, for his understanding, patience and unconditional support. Thank you for believing in me even when I doubted myself, for sharing my burdens and for being by my side every step of the way. Your faith and love were the foundation upon which this dissertation was built.

I dedicate this dissertation to my family – with love, gratitude and pride.

Abstract

In recent decades, the relationship between tourism and creativity has attracted increasing attention in both academic research and policy development, driven by global shifts in consumption patterns, digital transformation and the growing need for sustainable and locally embedded development models. Within this context, creative industries, key components of the broader creative economy are recognized as transformative forces in tourism, contributing to the reinterpretation of destinations, diversification of tourism experiences and strengthening of socioeconomic resilience. As tourism demand becomes increasingly experience-oriented, the interconnection between tourism and creativity has intensified, positioning creative tourism as an important framework for understanding sustainable destination development. Despite this growing recognition, the empirical understanding of how creative capacity translates into measurable tourism outcomes remains fragmented, particularly in cross-country European analyses.

A central challenge in existing literature is the absence of a consistent and comparable framework for measuring the creative economy, particularly in longitudinal and cross-country analyses. Existing indices vary significantly in methodology and conceptual scope, limiting their applicability in comparative research and policy formulation. To address this gap, this dissertation develops a European Creativity Index (EU-CEI), grounded in a multidimensional conceptual framework and constructed using the Delphi method with expert consensus on indicator selection and weighting. The index integrates economic, cultural, institutional and social dimensions of creativity, enabling a systematic quantification of creative capacity across EU member states over the period 2011–2019. The index was constructed and operationalised using R statistical software, ensuring transparency, replicability and methodological consistency in index aggregation and validation procedures.

The main objective of the dissertation is to examine the role of the creative economy, operationalized through the European Creativity Index (EU-CEI), in shaping tourism development and performance in the EU. The research is guided by a main hypothesis (H1) and two sub-hypotheses (H1.1 and H1.2), which test the effect of creative economy on (i) the contribution of tourism to gross domestic product and (ii) the number of tourist overnight stays.

Methodologically, the research adopts a mixed-methods design combining qualitative, quantitative and econometric approaches, using both primary and secondary data. Secondary data are sourced from Eurostat, UNWTO, UNESCO, the World Bank, UNDP and the World Travel and Tourism Council (WTTC). Primary qualitative insights are obtained through semi-structured interviews with experts in the field. The empirical analysis covers a seven-year panel dataset (2011–2019 with the exception of 2012 and 2014, which were excluded due to incomplete data availability for

key independent variables. This exclusion was necessary to ensure the consistency, reliability and comparability of the dataset across all variables included in the panel analysis and is conducted using descriptive statistics, fixed and random effects panel regression models and dynamic panel estimation through the Generalized Method of Moments (GMM), implemented in R software. The analysis includes travel and tourism GDP contribution and overnight stays as dependent variables, while European Creativity Index (EU-CEI) and relevant control variables (GCI, HDI, TTCI/TTDI and tourism expenditure indicators) serve as explanatory factors.

Qualitative insights confirm a strong synergy between the creative sector and tourism, demonstrating that the creative economy contributes to the diversification of tourism offerings, the preservation of cultural heritage, the strengthening of local communities and long-term sustainability.

The European Creativity Index (EU-CEI) was developed with the aim of measuring creative capacity as a composite phenomenon based on three modules: Enabling environment, Creative base and Cultural vibrancy. Through the development of the indicator using the Delphi method, a new direction in the understanding of creativity was identified, shifting the focus from quantitative indicators towards a holistic, multidimensional approach in which creativity is observed through institutional, social and cultural factors. This conceptual extension opens up significant opportunities for further research on creativity as an integrated system of economic performance, governance quality and socio-cultural dynamics.

By means of comparative analysis, the creative capacity of two groups of countries, classified according to their levels of the European Creativity Index (EU-CEI) was examined. The results show that creative capacity is unevenly distributed and in line with theoretical expectations, strongly associated with the level of economic development, with higher levels of the creative economy concentrated in more developed countries. The findings confirm that creativity functions as a systemic development factor: less developed countries demonstrate greater convergence potential and more pronounced developmental effects, while in highly developed economies creativity is embedded in mature innovation systems and manifests through long-term competitiveness and value creation.

The European Creativity Index (EU-CEI) does not show a statistically significant direct effect on tourism’s contribution to GDP in most countries, while partial positive effects are observed for tourist overnight stays, particularly in less developed economies. In developed countries, creativity operates primarily through indirect mechanisms such as innovation, destination differentiation and cultural value creation, whereas in Mediterranean countries weaker or negative effects are associated with seasonality, market fragmentation and limited policy integration. Robustness checks confirm the stability of the estimated relationships, suggesting that creativity functions more as a long-term structural factor than a short-term economic driver of tourism performance.

The dissertation contributes scientifically on three levels. Theoretically, it integrates creativity and tourism within a unified conceptual framework, positioning creativity as a structural development resource. Methodologically, it introduces a novel multidimensional index, European Creativtiy Index (EU-CEI) and combines Delphi-based construction with advanced panel and GMM econometric techniques, improving the robustness and comparability of creativity measurement. Empirically, it provides cross-country evidence on the differentiated effects of creative capacity on tourism performance in the EU.

Finally, the research demonstrates that creativity should be understood as a long-term, multidimensional driver of tourism development rather than a direct short-term economic determinant. The research provides a solid analytical and methodological foundation for future research and policy design aimed at fostering more resilient, innovative and sustainable tourism systems. The research on the interrelationship between the creative economy and tourism provides a foundation for further theoretical and applied research in EU countries as well as in other tourism destinations.

Keywords: creative economy; creative industries; creativity index; tourism; Delphi method; panel analysis; GMM analysis

Prošireni sažetak

U suvremenim uvjetima gospodarstva temeljenog na znanju, kreativnost, kreativna ekonomija i kreativne industrije sve se više prepoznaju kao važni pokretači inovacija, konkurentnosti i održivog razvoja. Istodobno, turizam se suočava s potrebom razvoja novih modela koji nadilaze tradicionalne obrasce rasta, te uključuju kreativnost, kulturni kapital i inovacije kao strateške resurse razvoja destinacija. Unatoč rastu interesa za povezanost kreativne ekonomije i turizma, empirijska istraživanja koja sustavno ispituju njihov međuodnos i gospodarske učinke, osobito na razini EU i dalje su ograničena. Dodatno, postojeća literatura često je fragmentirana, te se oslanja na parcijalne indikatore i pojedinačne dimenzije kreativnosti, što otežava razvoj sveobuhvatnog analitičkog okvira.

Glavna svrha ove doktorske disertacije je istražiti koncept kreativnosti, kreativne ekonomije kroz konstrukciju indeksa kreativnosti, te analizirati njegovu ulogu u razvoju i transformaciji turizma. Istraživanje se temelji na integriranom pristupu koji obuhvaća teorijsku razradu koncepta, razvoj odgovarajućeg metodološkog instrumenta, komparativnu analizu kreativnog potencijala zemalja, te empirijsku analizu usmjerenu na provjeru pretpostavki o ulozi kreativnog potencijala u turističkim ishodima. Primjenom posebno konstruiranog kompozitnog indeksa, Europskog indeksa kreativnosti (EU-CEI) – istražuje se uloga kreativnog potencijala i turističkih performansi u državama članicama Europske unije, pri čemu se kreativnost promatra ne samo kao izvor inovacija i dodane vrijednosti u turizmu, već i kao pokretač dugoročnog socioekonomskog razvoja, kulturnog identiteta i otpornosti lokalnih zajednica. Na taj način istraživanje prelazi okvire tradicionalnih pristupa mjerenju kreativnosti, te omogućuje njezinu operacionalizaciju u kvantitativno usporedivom i empirijski testabilnom obliku.

Na temelju definirane svrhe istraživanja, definirana su dva osnovna istraživačka cilja kojim se nastoji produbiti razumijevanje odnosa između kreativnosti, kreativnih industrija, kreativne ekonomije i turizma, te procijeniti značaj kreativne ekonomije za turističke ishode primjenom kompozitnog indeksa kreativnosti razvijenog za zemlje Europske unije.

Glavna hipoteza istraživanja (H1) pretpostavlja da kreativna ekonomija ima značajan i pozitivan učinak na ekonomske učinke turizma. Ova hipoteza dodatno je operacionalizirana kroz dvije podhipoteze koje proizlaze iz strukture empirijskog modela.

Prva podhipoteza (H1.1) navodi da Europski indeks kreativnosti (EU-CEI) ima značajan i pozitivan učinak na ukupni doprinos putovanja i turizma bruto domaćem proizvodu (BDP-u). Druga podhipoteza (H1.2) pretpostavlja da Europski indeks kreativnosti (EU-CEI) ima značajan i pozitivan učinak na broj turističkih noćenja. Ovakva operacionalizacija omogućuje testiranje

kreativnosti kroz dvije komplementarne dimenzije turističkih performansi – ekonomski doprinos i fizičku turističku aktivnost.

Pregledom literature i definiranjem ključnih koncepata uspostavljen je teorijski okvir istraživanja dok je temeljno istraživanje strukturirano u okviru četiri međusobno povezane faze – teorijska, instrumentalna, komparativna i empirijska. Kombinacijom kvalitativnih i kvantitativnih pristupa, te integracijom primarnih i sekundarnih podataka osigurana je metodološka robusnost i veća znanstvena pouzdanost rezultata istraživanja. Time je razvijen integrirani istraživački okvir koji povezuje konceptualnu osnovu, konstrukciju mjernog instrumenta i empirijsku validaciju u jedinstvenu analitičku cjelinu.

U prvoj, teorijskoj fazi, proveden je integrativni pregled literature s ciljem sinteze postojećih znanja, identifikacije ključnih trendova, obilježja i izazova u sinergiji kreativnosti i turizma, te analize postojećih indeksa kreativnosti. Ovaj kvalitativni dio istraživanja dodatno je obogaćen polustrukturiranim intervjuima s četiri stručnjaka u ovom području radi validacije rezultata i dubljeg uvida u praktične aspekte odnosa kreativne ekonomije i turizma.

Druga, instrumentalna faza usmjerena je na konstrukciju Europskog indeksa kreativnosti (EU-CEI), koji je razvijen primjenom OECD-JRC smjernica kao okvira za izgradnju kompozitnih indeksa i definiranje ključnih metodoloških koraka u njihovoj izradi. Pregledom literature postojećih indeksa stvorena je početna baza ključnih indikatora i dimenzija, dok je na temelju stručnog konsenzusa (Delphi metode) između deset ključnih eksperata, te obradom i analizom dostupnosti sekundarnih statističkih podataka formiran konačni skup od 44 indikatora raspoređenih u tri dimenzije: Poticajno okruženje, Kreativna baza i Kulturna vitalnost. Pristup formiranju indikatora primjenom Delphi metode omogućuje transparentnu i replicabilnu konstrukciju indeksa, te smanjuje razinu subjektivnosti u odabiru indikatora. Indeks je implementiran i izračunat u statističkom programu R (R Studio environment), uz korištenje standardnih paketa za konstrukciju kompozitnih indikatora i validaciju dimenzija, te je formiran za razdoblje od 2011 do 2019 godine i temelji se na sekundarnim podacima Eurostata, UNESCO-a, UNWTO-a, Svjetske banke i UNDP-a.

U fazi komparativne analize koristi se Europski indeks kreativnosti (EU-CEI) kroz usporedbu kreativnog kapaciteta među državama članicama EU, pri čemu se identificiraju značajne razlike između razvijenih i manje razvijenih gospodarstava..

Empirijska faza temelji se na panel podacima za države članice Europske unije u razdoblju od 2011. do 2019. godine (uz izuzeće 2012. i 2014. zbog nedostatka podataka), koristeći sekundarne podatke iz Eurostata, UNESCO-a, UNWTO-a, Svjetske banke, UNDP-a i World Travel and Tourism Councila (WTTC). Analitički okvir obuhvaća panel regresijske modele s fiksnim i slučajnim učincima, dinamičku panel analizu primjenom Generalized Method of Moments

(GMM), te dodatne robustnosne provjere korištenjem broja turističkih noćenja kao alternativne zavisne varijable.

Rezultati istraživanja ukazuju na značajne razlike u kreativnom potencijalu među državama Europske unije, te potvrđuju da pojedine dimenzije kreativnosti imaju važnu ulogu u objašnjavanju turističkih performansi. Rezultati kvalitativnog istraživanja potvrđuju da se sinergije kreativne ekonomije i turizma ostvaruju kroz kulturnu baštinu, inovacije, uključivanje lokalnih zajednica, digitalne tehnologije i održive modele upravljanja destinacijama. Europski indeks kreativnosti ne pokazuje statistički značajan izravan učinak na doprinos turizma BDP-u (TTTGDP), dok se djelomični pozitivni učinci bilježe na broj turističkih noćenja, osobito u manje razvijenim zemljama. U razvijenim gospodarstvima kreativni potencijal djeluje uglavnom neizravno kroz inovacije, diferencijaciju ponude i jačanje destinacijskog identiteta, dok je u manje razvijenim državama utjecaj izraženiji i izravniji. U mediteranskim zemljama učinci su slabiji ili negativni, što se povezuje sa sezonalnošću i institucionalnim ograničenjima. Robusnosne analize potvrđuju stabilnost nalaza, te upućuju na to da kreativna ekonomija djeluje prvenstveno kao dugoročni strukturni čimbenik, a ne kao kratkoročni pokretač turističkog rasta. Ovi rezultati dodatno potvrđuju potrebu za diferenciranim politikama koje uzimaju u obzir razinu razvijenosti kreativnog sektora u pojedinim državama.

Znanstveni doprinos rada ogleda se na više međusobno povezanih razina, pri čemu se teorijski, metodološki i primijenjeni aspekti nadopunjuju u jedinstvenom istraživačkom okviru. Na teorijskoj razini, rad integrira kreativnu ekonomiju i turizam u zajednički konceptualni okvir, pri čemu se kreativnost promatra kao važan razvojni resurs u kontekstu održivih i konkurentnih destinacija. Metodološki doprinos proizlazi iz razvoja novog multidimenzionalnog indeksa kreativnosti, te njegove operacionalizacije kroz kombinaciju Delphi pristupa i panel ekonometrijskih metoda, uključujući i GMM analizu. Time se pristup mjerenju kreativnosti proširuje izvan usko ekonomskih pokazatelja, na način da obuhvaća i institucionalne, društvene te kulturne dimenzije kreativnog kapaciteta. Na aplikativnoj razini, istraživanje pruža empirijsku podlogu za oblikovanje javnih politika, ukazujući na načine na koje se kreativnost može sustavno integrirati u strategije razvoja turizma i dugoročne politike održivog razvoja destinacija. Rezultati istraživanja mogu poslužiti kao osnova za buduće komparativne analize i razvoj unaprijeđenih indeksa kreativne ekonomije na europskoj i globalnoj razini. Također, ovaj rad može poslužiti kao nastavak istraživanja povezanosti kreativne ekonomije i turizma u teorijskom i aplikativnom smislu, istražujući povezanost na primjeru ne samo europskih turističkih destinacija već i u kontekstu međunarodnog turizma.

Ključne riječi: kreativno gospodarstvo; kreativne industrije; indeks kreativnosti; turizam; Delphi metoda; panel analiza; GMM analiza

TABLE OF CONTENTS

ABSTRACT I

PROŠIRENI SAŽETAK IV

TABLE OF CONTENTS VII

1. INTRODUCTION 1

1.1. Research problem and the subject of the thesis 2

1.2. Purpose and objectives of the thesis 5

1.3. Thesis' hypotheses 8

1.4. Scientific research methods 10

1.5. Scientific and applied contribution 19

1.6. Research structure 21

2. LITERATURE SYNTHESIS AND CONCEPTUAL FRAMING 23

2.1. Conceptual evolution of the creative economy 24

2.1.1. Creativity as a foundational concept *25*

2.1.2. Cultural economy and the conceptual turn *25*

2.1.3. The concept of creative industries *29*

2.1.4. Theoretical perspectives on the creative economy *35*

2.2. Creativity in spatial and socio-economic context 40

2.2.1. The creative class in spatial and socio-economic context *40*

2.2.2. The creative city in spatial and socio-economic context *43*

2.3. Measuring creativity - theoretical approaches and conceptual challenges 47

2.3.1. Comparative overview of creativity indices *48*

2.3.2. Challenges and limitations in measuring the creative economy *63*

2.4. Creativity in tourism context 65

2.4.1. Creative tourism: conceptual development and key characteristics *66*

2.4.2. The evolution and structural development of creative tourism *69*

3. CREATIVE ECONOMY AND TOURISM: GLOBAL INSIGHTS 72

3.1. Exploratory qualitative research framework 73

3.2. Analysis and findings 77

3.2.1. Creative synergies for sustainable destination development *77*

3.2.3. Key themes and challenges in destination development *82*

3.2.4. Future research directions in the creative economy–tourism nexus *90*

4. MEASURING CREATIVE PERFORMANCE - A DELPHI-BASED COMPOSITE INDEX FOR EU ECONOMIES 94

4.1. Research methodology for the construction of the composite index 95

4.2. Analysis and research results 100

4.2.1. Conceptual framework: theoretical foundations and dimensional structure of the European Creativity Index 100

4.2.2. Index construction: methodological steps and procedure 110

4.2.2.1. Selection and weighting of variables – The Delphi method 110

4.2.2.2. Final selection of variables 132

4.2.2.3. Data analysis 139

4.2.2.4. Data imputation 140

4.2.2.5. Data normalization 141

4.2.2.6. Multivariate analysis 141

4.2.2.7. Weighting and aggregation of data 143

4.2.2.8. Robustness check and sensitivity analysis 145

4.2.2.9. Index visualization 145

5. COMPARATIVE ANALYSIS OF CREATIVE CAPACITY ACROSS EU ECONOMIES 147

5.1. Comparative analysis framework 147

5.2. Analysis and findings 148

6. MODELLING CREATIVE ECONOMY AND TOURISM – EVIDENCE FROME EU ECONOMIES 158

6.1. Analytical structure and methodological phases 160

6.1.1. Dependent and control variables 161

6.1.2. Econometric and statistical framework 163

6.2. Empirical analysis and research results 166

6.2.1. Baseline panel evidence on the creative economy and tourism performance in the EU 167

6.2.1.1. Analysis of EU economies by the level of creative development 167

6.2.1.2. Comparison of Mediterranean and non-Mediterranean countries 169

6.2.2. Dynamic effects of creative capital on tourism contribution to GDP 170

6.2.3. Robustness analysis of the creative economy impact on tourism outcomes 172

7. DISCUSSION 174

7.1. Qualitative insights 175

7.2. Instrumental framework and European Creativity Index (EU-CEI) 178

7.3. Comparative analysis of creative capacity 179

7.4. Empirical evidence and hypothesis testing 179

8. CONCLUSION 184

8.1. Synthesis of main research findings 184

8.2. The scientific contribution of the research 188

8.3. Limitations and suggestions for future research 190

REFERENCES 192

LIST OF TABLES 229

LIST OF FIGURES 230

APPENDICES 231

1. INTRODUCTION

The growth and development of the global tourism industry introduce a new paradigm for sustainable socio-economic progress. Tourism should be developed in a way that benefits local communities, strengthens local economies, employs local labor and uses local materials wherever environmentally sustainable. Creativity has always been a driving force behind smart, sustainable and inclusive economic and social development. In an economy transforming from a "giant factory" into a "great theater" (Rifkin, 2001), creativity becomes a key source of wealth and prosperity (Florida, 2002). In today's world, increasingly based on knowledge and innovation, intangible assets make the essential difference in how people use their resources.

The shift toward creativity in tourism can be viewed as part of the evolution of the foundations of tourism experiences (Richards and Wilson, 2007a), which also offers excellent opportunities to expand sustainability and prosperity among communities. The growing demand for more authentic experiences and intensified competition in supply have led to the need for differentiation in approaches and inclusion, shaping a new niche in tourism that involves local residents and draws upon place identity (Richards, 2020). The tourism industry faces growing challenges of the modern age. Stakeholders in tourism have the responsibility not only to respond to this social paradigm shift but also to lead it. In its contemporary phase, tourism has established itself as one of the most prominent social and economic sectors. Due to its multifaceted purpose, tourism affects economic well-being worldwide. Therefore, creativity and tourism can take a leading role in shaping an emerging caring and conscious global economy.

This dissertation highlights the potential for a transformative reorientation of tourism toward a sustainable model that promotes socio-economic progress through the integration of creativity and the creative economy into development processes. The assumption is that countries recognizing the importance and potential of the creative economy will achieve greater tourism penetration and consequently, more stable and accelerated tourism development.

Within the framework of contemporary research on the role of creativity in economic and social development, special attention is drawn to the concept of the creative economy, which encompasses a wide range of activities based on human creativity, knowledge, innovation and cultural values (Howkins, 2001). The concepts of the creative economy, creative industries and creativity are closely related but cannot be considered synonymous in either theoretical or empirical terms. Creative industries represent sectors of the economy whose production is based on individual creativity, skill and intellectual property (UNCTAD, 2018), while the creative economy encompasses a broader framework within which these industries develop and contribute to overall economic growth (Howkins, 2001). Creativity, on the other hand, represents the

fundamental resource and driving force of these processes – the ability to generate new and valuable ideas, solutions and products (Florida, 2014; Runco and Jaeger, 2012).

Due to the multidimensional nature of these concepts, empirical research calls for the development of complex indicators that enable the quantification and comparison of the level of creative potential among countries or regions. In this context, this dissertation employs the concept of the European Creativity Index as an aggregate indicator that synthesizes various dimensions of creative capital – human, cultural, technological and innovation-based (Florida et al., 2015). The European Creativity Index does not replace the concept of the creative economy but serves as an operational variable used to measure its developmental capacity and its impact on other economic sectors, particularly tourism. The newly constructed European Creativity Index (EU- CEI) is based on economic, cultural and social indicators commonly used in the literature as measures of the creative economy's level of development. A similar approach is adopted, for example, by the Global Creativity Index (Florida et al., 2015), which operates on a comparable logic.

Creativity is recognized in the literature as a fundamental source of competitive advantage and a key factor in generating new economic value (Florida, 2014; UNCTAD, 2022). Numerous international indices, such as the Global Creativity Index (Florida et al., 2011, 2015), operationalize creativity through economic, cultural and social indicators, making it a measurable category and a suitable instrument for analyzing the interdependence between the creative economy and other developmental domains. Therefore, in this research, the European Creativity Index (EU- CEI) is understood as a composite indicator that reflects the level of development of the creative economy and enables empirical examination of its effect on tourism-related economic indicators.

The introductory chapter provides a concise overview of the doctoral dissertation. It presents the research problem and subject, outlines the purpose and objectives of the research, formulates the main and auxiliary hypotheses and describes and justifies the scientific methods employed. Furthermore, it specifies the expected contribution of the dissertation in both scientific and applied terms and briefly presents the overall structure of the work.

1.1. Research problem and the subject of the thesis

The research problem lies in the lack of systematic empirical evidence and comprehensive analytical frameworks that examine the contribution of the creative economy to tourism development and their synergistic interdependence.

In recent years, interest in the links between tourism and the creative industries has increased, yet systematic empirical studies exploring the contribution of the creative economy to tourism and their synergistic interdependence remain scarce. The reasons for this lie, on the one hand, in the

inherent multidimensionality of both concepts - encompassing economic, social, cultural and environmental aspects and on the other hand, in the methodological challenges related to the availability, reliability and comparability of data necessary for their precise measurement and analysis.

Table 1. Definitions and operationalization of key concepts in the creative economy

Term	***Explanation of terms***	***Operationalization***
Creativity	The individual or collective ability to generate new and valuable ideas (Florida, 2014; Runco and Jaeger, 2012).	A fundamental concept measured indirectly through indicators such as the number of creative workers, investment in R&D, education, innovation, etc. (Florida, 2014; Runco and Jaeger, 2012).
Creative industries	Economic sectors based on individual creativity, skill and talent (e.g., design, film, music, architecture, IT, cultural tourism) (UNCTAD, 2018).	A constituent component of the creative economy (UNCTAD, 2018).
Creative economy	A broader concept encompassing all economic activities derived from creativity, knowledge and intellectual property (Howkins, 2001).	The Creativity Index serves as an aggregate indicator of the level of development of the creative economy (Howkins, 2001).
Creativity index	A composite indicator synthesizing various dimensions of creative potential and activity (human capital, innovation, technology, cultural resources) (Florida et al.,2015).	A tool for quantifying and comparing the level of development of the creative economy among countries or regions (Florida et al., 2015).

Source: Own compilation

Several key challenges further complicate the understanding and quantification of this complex topic. First, the absence of a single, universally accepted definition of the creative economy makes it difficult to harmonize theoretical approaches, methodologies and research frameworks. Additionally, the diversity of sectors included within creative industries creates difficulties in selecting relevant components for measurement, while indicator construction methods are often not optimally aligned with the specific characteristics of creative activities. Data-related issues such as availability, timeliness, reliability and comparability present a serious obstacle to the development of robust and practically applicable creativity indices (Mikulić and Jelušić, 2025).

Over the past 20 years, various indices have been developed to measure the impact of creativity on human capital, openness, innovation and technological performance. Properly defined, simple and interpretable indicators are key to accurate measurement (Choi, 2003). However, this aspect is often neglected in selected studies and the process of indicator selection is generally poorly explained (Mikulić and Jelušić, 2025). Interest in assessing creativity indices has increased in recent years because they provide analytical tools for evaluating the economic impact of the creative economy and are useful for measuring the effectiveness of policy decisions. A substantial body of literature on creativity has emerged over the past decade; however, it remains a field resistant to economic analysis due to the inherently ambiguous nature of the topic and the difficulty of measuring such a complex and subjective phenomenon. Despite this, there is still no widely accepted or established index, which justifies the development of a new index that enables multidimensional assessment and a composite indicator easily interpretable in comparison with large datasets. A time-series-based index allows not only comparison across time but also expansion of the ability to assess the impact of the creative sector on the economy and society. Above all, it is crucial to identify the challenges inherent in measuring this subjective concept.

Composite indices can be excellent analytical tools for assessing the economic impact of creativity, creative industries and policy effectiveness. However, their reliability largely depends on their construction. Different types of creative outputs and subjective decisions in selecting and weighting indicators can lead to inconsistencies in composite indices. In most cases, variables are chosen by reviewing existing literature and relying on previous studies, with equal weights often assigned to individual indicators (Mikulić and Jelušić, 2025). Despite these challenges, in a contemporary world driven by knowledge and innovation, intangible factors such as creativity, innovativeness and intellectual capital have become key sources of economic dynamism and competitiveness (Florida, 2002).

Tourism, meanwhile, faces numerous challenges of the modern era - from climate change and overtourism to shifting visitor preferences, which demand new approaches oriented toward sustainable and inclusive models of growth. Creativity and the creative economy can therefore play a crucial role in shaping sustainable tourism practices that simultaneously strengthen local communities, diversify economic activities and contribute to environmental preservation.

In its classical conceptualization, sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). However, contemporary sustainability literature increasingly emphasizes the importance of intergenerational wellbeing, viewing sustainability as a process of long-term transmission of overall wellbeing to future generations. This approach requires the preservation or enhancement of fundamental capital stocks: economic, human, social and natural - which jointly determine a society's development potential (Arrow et al., 2012; Dasgupta, 2014; Dasgupta, 2021).

Economic capital ensures long-term productivity; human capital encompasses knowledge, skills and creativity; social capital includes social relations, trust and institutional stability; while natural capital comprises ecosystems, biodiversity and resources that support life and economic activity (Dasgupta, 2021). A society is considered sustainable only if the total value of these capital stocks is preserved or increased over time, enabling future generations to achieve at least the same level of wellbeing as the present one (Stiglitz et al., 2018).

In the context of tourism, this broadened understanding of sustainability implies an approach that goes beyond merely reducing environmental impacts. It calls for strategic decisions that simultaneously protect natural systems, invest in the knowledge and creativity of local communities, strengthen cultural identity and social cohesion and contribute to the development of economic structures resilient to crises. Creative industries play a particularly important role in this process: by generating non-material value and fostering innovation, they enhance human and social capital while reducing pressure on natural capital by shifting tourism toward less resource-intensive models (Richards, 2020; Duxbury and Richards, 2019).

Integrating the intergenerational wellbeing framework into tourism development thus provides a deeper and more comprehensive understanding of sustainability, viewing tourism not merely as an economic activity but as a mechanism for transmitting cultural meaning, knowledge, resources and community resilience to future generations.

Creativity and the creative economy could play a key role in shaping sustainable tourism models (such as community-based, ecotourism and regenerative tourism) that empower local communities, support environmental conservation and promote long-term development, as well as competitive models based on innovative and differentiated offerings that further strengthen local economies.

In line with these considerations, this research systematically investigates, analyses and integrates existing theoretical and scientific insights on the creative economy and its relationship with tourism, using theoretical, instrumental, comparative and empirical approaches to clarify the relationship between these two complex and interconnected concepts.

1.2. Purpose and objectives of the thesis

In accordance with the defined research problem and subject, the purpose and objectives of the research were established.

The main purpose of this dissertation is to explore the concept of the creative economy through the European Creativity Index and to analyze it’s role in the development and transformation of the tourism industry.

The research is based on a comprehensive approach that encompasses the theoretical elaboration of the concept, the design of an appropriate methodological instrument and empirical analysis aimed at testing assumptions about their interconnection and contribution to the tourism sector. By using a specially constructed composite index - the European Creativity Index (EU-CEI), this research focuses on analyzing the relationship between the European Creativity Index and tourism outcomes in the countries of the European Union (EU).

The focus is primarily on the broader form of creativity as a tool to strengthen tourism potential, sustainability and economic competitiveness. Creativity is considered not only as a source of innovation and added value in tourism but also as a driver of long-term socio-economic progress, cultural identity and the resilience of local communities.

Based on this purpose and research scope, the following **general research objectives** were defined:

- To deepen the understanding of the relationship between creativity, creative industries, the creative economy and tourism and to determine the role and importance of the creative economy in tourism development.
- To assess the effect of the creative economy on tourism outcomes through the application of a composite European Creativity Index (EU-CEI) developed for EU countries and to analyse its contribution to tourism performance.

Given the complexity of the research design, the dissertation is structured around a conceptual foundation and four interrelated analytical phases, operationalised through theoretical, instrumental, comparative and empirical approaches, each addressing **specific research objectives**.

Conceptual Foundation – Literature Synthesis and Conceptual Framing
This stage establishes the theoretical foundation of the research by examining the relationships between creativity, creative industries, the creative economy and tourism. It synthesises existing knowledge, identifies key trends, characteristics and challenges within this nexus and critically reviews the most relevant scientific contributions related to creativity measurement and composite indices.
Specific objectives:

- To systematise and integrate existing theoretical approaches to the creative economy and tourism.
- To establish the theoretical basis for constructing a composite measure of creative capacity.

Theoretical Phase (Qualitative Foundation)
This phase explores the theoretical and practical implications of the creativity–tourism nexus for sustainable tourism development, providing qualitative insights that inform the empirical framework.

Specific objectives:

- To explore the mechanisms through which creativity influences tourism development by identifying qualitative interaction patterns between creative industries and tourism and contextualising the role of creativity within sustainable tourism paradigms.

Instrumental Phase (Index Construction)
This phase focuses on the development of the research instrument through the establishment of a conceptual framework and the structuring of the index using the Delphi method. It's main outcome is the construction of the European Creativity Index (EU-CEI), designed to quantify the creative potential of EU countries.

Specific objectives:

- To develop a theoretically grounded and empirically validated framework for measuring creative capacity by selecting and validating relevant indicators through the Delphi method.
- To construct a composite index capable of capturing multidimensional aspects of creativity.

Comparative Analysis
This phase provides a systematic comparison of creative capacity across EU member states based on the EU-CEI. It identifies structural differences, clustering patterns and regional disparities in creative development.

Specific objectives:

- To compare levels of creative capacity across EU countries and provide a structural interpretation of creative development in the EU, in relation to the levels of economic development of EU countries.

Empirical Phase (Applied Econometric Analysis)
This phase applies descriptive and econometric methods to examine the effect of the creative economy on tourism performance. It combines panel regression analysis and Generalized Method of Moments (GMM) estimation to ensure robustness and address potential endogeneity.

Specific objectives:

- To analyse the effect of the European Creativity Index (EU-CEI) on tourism economic outcomes and account for dynamic relationships using panel data and GMM models.
- To test the robustness and stability of the estimated effects through alternative model specifications and dependent variables.

This integrated approach, combining theoretical synthesis, instrumental innovation, comparative and empirical analysis enables a deeper understanding of whether and how the creative economy can serve as a development tool in the tourism sector.

1.3. Thesis' hypotheses

This dissertation is based on the assumption that the creative economy is an important and valuable driver of tourism development in European Union countries and beyond. Creativity is understood as a key response to future development challenges and as a foundation for opening new paradigms that promote sustainable and competitive tourism.

Accordingly, for the qualitative research approach in the first phase of the research, the **Working hypothesis** is defined as follows:

WH: The creative economy and tourism are related in their effects on sustainable development and the economy as a whole.

Building on theoretical and empirical insights into the role of the creative economy in tourism development, this research assumes that variations in the creative economy, operationalised through the European Creativity Index (EU-CEI), exert a measurable effect on tourism economic outcomes. The set of hypotheses is therefore designed to test the effect of the creative economy on tourism performance within a panel data framework. Within this framework, tourism performance is operationalised through two key dimensions: its economic contribution (travel and tourism share in GDP) and the intensity of tourism activity (number of overnight stays). Together, these dimensions enable a comprehensive assessment of how creative capacity translates into measurable tourism outcomes.

Given that the creative economy is not directly observable, it is represented through the European Creativity Index (EU-CEI), a composite proxy capturing its multidimensional nature, including enabling environment, creative base and cultural vibrancy. In this sense, the hypotheses are formulated at the level of the underlying construct, while empirical testing is conducted through its measurable index representation.

In this context, **comparative propositions** are introduced *to support the exploratory and methodological phases of the research:*

Comparative proposition (CP) assumes that :

CP: Higher levels of the creative economy, as measured by the European Creativity Index (EU-CEI), are achieved in economies characterized by a higher level of economic development and greater macroeconomic efficiency.

This relationship is based on the theoretical expectation that more developed economies possess more stable institutional frameworks, greater investment capacities and more efficient innovation systems, all of which contribute to the strengthening of creative potential. In this context, a higher level of economic development is reflected in a higher quality of life for the population, greater levels of economic well-being and generally more favourable socio-economic conditions. Such conditions create an environment that fosters the development of creative industries, innovation and knowledge creation, which is ultimately reflected in higher European Creativity Index (EU-CEI) values.

These propositions are not formulated as hypotheses for formal statistical testing, but as theoretical and methodological propositions that support the development of the measurement framework and the comparative analytical dimension of the dissertation, in line with the approach proposed by Li and McCabe (2013) in tourism indicator-based research.

Accordingly, the main **research hypothesis** is specified as follows:

H1. The creative economy has a significant positive effect on tourism economic outcomes.

This hypothesis is further operationalised through two sub-hypotheses derived from the structure of the empirical model:

H1.1. The European Creativity Index (EU-CEI) has a significant positive effect on the total contribution of travel and tourism to GDP.

H1.2. The European Creativity Index (EU-CEI) has a significant positive effect on the number of tourist overnight stays.

Together, these hypotheses enable a structured examination of how creative capacity, measured by the European Creativity Index (EU-CEI), affects both the economic weight of tourism within national economies and the intensity of tourism activity.

1.4. Scientific research methods

This research applies a mixed-method approach to capture the multidimensional nature of creativity and its relationship with tourism development. The research combines qualitative and quantitative methods and is structured through several sequential phases.

The research design is structured as a sequential mixed-method framework that combines four complementary components: (1) qualitative analysis of the creative economy–tourism sinergy, (2) construction of a European Creativity Index (EU-CEI), (3)comparative analysis and (4) empirical panel data analysis. The empirical component combines descriptive analysis of creative capacity across EU countries with panel econometric modelling of the impact of the European Creativity Index (EU-CEI) on tourism performance. In addition to baseline estimations, dynamic GMM modelling and robustness tests are applied to ensure reliable assessment of the effects of creative capital on tourism outcomes.

This four-phase structure ensures methodological triangulation and enables a systematic linkage between theory, measurement, comparative and empirical analysis.

Table 2. Methodological framework of the research

Phase 1	***Theoretical approach***
Research question 1	What is the relationship between the creative economy and tourism and what are the main characteristics and trends of their synergy in the context of sustainable development?
Objective 1	To explore the mechanisms through which creativity influences tourism development by identifying qualitative interaction patterns between creative industries and tourism and contextualising the role of creativity within sustainable tourism paradigms.
Method	Integrative literature review and in-depth interviews with four academic researchers.
Description	The analysis includes a review of theoretical approaches, identification of trends and challenges in existing research and synthesis of findings to define the relationship and synergy between the creative economy and tourism. This approach allows for systematic collection and interpretation of prior research, establishing a foundation for further empirical investigation. The focus is on identifying key trends, challenges and opportunities in the integration of creative industries and the tourism sector—an integration that plays a crucial role in shaping sustainable tourism models and supporting local communities.

WORKING HYPOTHESIS	**The creative economy and tourism are related in their effects on sustainable development and the economy as a whole.** It is assumed that there is a significant synergy between the creative economy and tourism, contributing to sustainable development through innovative forms of tourism offerings, cultural heritage preservation and strengthening local communities.
Phase 2	***Instrumental approach***
Research question 2	What are the key dimensions important for the creative economy concept?
Objective 2	To develop a theoretically grounded and empirically validated framework for measuring creative capacity by selecting and validating relevant indicators through the Delphi method.
Method	Delphy method
Description	To validate the proposed composite index and its dimensions, the Delphi method was applied, using a structured consultation process with ten experts to achieve consensus on the relevance and weighting of the indicators. The model was developed through two evaluation rounds (Round 1 - June 2023; Round 2 - September 2023), during which experts quantified their opinions on the proposed indicators, assessing their acceptability and importance. Open-ended questions allowed for the comparison of new variables that could enhance the indicator system. Based on the collected feedback, a final revision was conducted in the second round, resulting in the adoption of the final set of indicators that best reflects the multidimensional nature of creativity. The Delphi method is applied when it is necessary to compare and combine arguments to make decisions that cannot be made unilaterally. Therefore, the opinions and value judgments of a group of experts are required (Linstone and Turoff, 1975), who, in this case, helped develop a sustainable analytical model for investigating dimensions/variables suitable for the research.
HYPOTHESIS	**NA**

Research question 3	NA
Objective 3	To construct an index that assesses the creativity level of EU countries
Method	According to the OECD-JRC Handbook (2008), this phase is based on the construction of a European Creativity Index (EU- CEI), which integrates spatial and temporal dimensions to enable a deeper analysis of creative performance among EU member states.
Description	Index attempts to grasp complex multidimensional phenomena by aggregating a set of indicators into a single quantitative measure whose value can reflect the multilayered reality of a creative economy. The analysis is based on secondary data collected at the national level for European Union countries over the period 2011–2019.
HYPOTHESIS	NA
Phase 3	***Comparative approach***
Research question 4	How do creative capacities differ among European Union member states and which countries show the highest and lowest potential according to creativity indices?
Objective 4	To compare levels of creative capacity across EU countries and to provide a structural interpretation of creative development across the EU.
Method	Descriptive analysis
Description	The analysis of creative capacities is based on the mean values and variations (standard deviations) of the European Creativity index (EU-CEI) among EU member states. Using descriptive statistics, the research enables the identification of countries with the highest and lowest creative potential, as well as providing insight into structural differences between the various components of the creative economy.
HYPOTHESIS	NA
Phase 4	***Empirical approach***

Research question 5	How and to what extent does creativity influence tourism outcomes within the European Union?
Objective 5	To analyse the effect of the European Creativity Index (EU-CEI) on tourism economic outcomes and account for dynamic relationships using panel data and GMM models.
Objective 6	To test the robustness and stability of the estimated effects through alternative model specifications and dependent variables.
Method	Panel regression analysis GMM (Generalized Method of Moments) analysis, based on secondary data at the EU country level for the period 2011–2019 (excluding 2012 and 2014).
Description	The empirical analysis is based on panel regression and the GMM method, providing evidence of the role of creativity in economic development and tourism sustainability. • Dependent variables: Total contribution of travel and tourism to GDP (TTTGDP); number of overnight stays in tourist accommodation establishments (control variable). • Independent variables: European Creativity Index (EU-CEI)/ C_index; Global Competitiveness Index (GCI); Human Development Index (HDI); Travel and Tourism Competitiveness Index (TTCI / TTDI); International tourism expenditures (in billions USD); Domestic tourism spending (DTS). Secondary data were collected from reliable sources (e.g., Eurostat, UNWTO, UNESCO, World Bank) and analyzed at the level of EU member states.
HYPOTHESIS 1	The creative economy has a significant positive effect on tourism economic outcomes.
HYPOTHESIS 1.1.	The European Creativity Index (EU-CEI) has a significant positive effect on the total contribution of travel and tourism to GDP.
HYPOTHESIS 1.2.	The European Creativity Index (EU-CEI) has a significant positive effect on the number of tourist overnight stays.

Source: Own compilation

The unit of analysis is defined at the country level, with a particular focus on European Union member states, while the analytical framework encompasses multiple indicators measuring both creative capacity and tourism performance. Given the nature of the available data, the research is

primarily based on a cross-sectional approach, while incorporating a time dimension where applicable.

This research design is particularly suitable for addressing the complexity of the research problem, as it enables the integration of different data sources and methodological approaches. For the development of the four main parts of the doctoral dissertation - conceptual, instrumental, comparative and empirical - a combination of scientific, econometric and statistical methods was applied. In line with the purpose and objectives of the research, the methodological framework is based on an integrated approach that combines theoretical analysis, instrument construction, comparative anaysis and empirical model testing.

The first segment of the research encompasses the development of a **theoretical framework**, including a review of relevant literature and existing studies on the concepts of the creative economy, aiming to determine the scope of current scientific knowledge in this field. Literature addressing the creative economy is extensive and diverse, yet interconnected. Because concepts related to the creative economy require precise delineation, many authors focus their analysis on specific aspects of this complex phenomenon. Particular challenges arise from the historical development of the concept, differences in definitional approaches and classification issues, which require systematic and detailed treatment.

In the **first phase** of the research, a *theoretical analysis* was conducted to examine the interrelationships between creativity, creative industries, the creative economy and tourism. The goal of this phase was to establish a solid conceptual foundation and research framework through the synthesis of existing knowledge, identification of key trends, presentation of relevant case studies and clarification of challenges and limitations in the synergy between the creative economy and tourism. This approach enabled the creation of an integrative literature analysis that presents existing theoretical contributions and evaluates them in the context of sustainable development and tourism practice.

The conceptual part of the dissertation presents a theoretical framework based on relevant secondary sources, including scientific journals, monographs, research databases and professional online sources. The use of a wide range of sources provided a multidimensional view of the subject and ensured a comprehensive and methodologically grounded basis for subsequent phases of research.

To further test the defined assumption through the working hypothesis and enrich the theoretical elaboration with new insights, an integrative qualitative approach was applied, combining an integrative literature review with in-depth semi-structured expert interviews.

The integrative literature review was conducted using the Scopus database, focusing on publications from the period 2013–2023. Keywords included "creative economy," "creative tourism," "sustainability," "cultural heritage preservation" and "tourism development." The inclusion criteria were: (i) direct relevance to the interaction between the creative economy and tourism, particularly in the context of sustainability and innovation; (ii) academic quality, assessed based on peer-review status and journal impact; and (iii) diversity of geographic and sectoral perspectives. From an initial pool of more than 150 sources, a final sample of 45 key publications was selected and subjected to thematic analysis, enabling the identification of dominant themes and research gaps.

To complement and validate the findings from the literature, four in-depth semi-structured interviews were conducted with academic experts and practitioners in the fields of the creative economy, tourism and sustainable development. The interviews were carried out during 2023, using online communication via Microsoft Teams. The selection of participants followed a purposive sampling approach, based on predefined criteria: (i) recognized academic or professional expertise in the fields of creative economy and tourism; (ii) scientific contribution measured through publications and citation relevance within the research domain; and (iii) practical experience in policy-making, research, or implementation of creative and tourism-related projects. The initial pool of potential participants was identified through a review of the most cited authors and experts in the field, of whom four agreed to participate in the research.

Interviews were conducted using a semi-structured questionnaire designed as an interview guide with predefined thematic sections and key questions (see Appendix 1 for the detailed interview guide). Each interview lasted approximately 45 minutes and was conducted in an online format, allowing flexibility and adaptation during the conversation while ensuring consistency across participants. The interview guide covered key topics, including perceptions of the relationship between the creative economy and tourism, challenges in integrating creativity into sustainable tourism development and recommendations for improving policies and practices.

The collected qualitative data were analyzed using thematic analysis following Braun and Clarke (2006), involving systematic coding, identification of recurring themes and grouping them into broader conceptual categories.

Various general scientific methods were applied during this phase, used complementarily:

- Analysis and synthesis: Decomposed complex concepts into their constituent parts and then integrated them into coherent theoretical units.
- Description method: Systematically described and classified concepts and theoretical approaches.
- Compilation method: Ensured the collection and systematic presentation of existing knowledge from the literature.

- Comparison method: Used to compare different theoretical models and approaches and to identify similarities and differences among countries and practical examples.
- Disaggregation method: Helped structure complex processes and phenomena into smaller, understandable components.
- Historical method: Provided insights into the evolution of the concepts of the creative economy, creative industries and creative tourism over time, offering essential context for understanding contemporary trends.

The results of the first phase contributed to the identification of fundamental challenges and the formulation of guidelines for subsequent research steps, forming the basis for the instrumental and empirical phases.

Second phase, the *instrumental phase* focuses on operationalizing the creative economy through the construction and application of a European Creativity Index (EU-CEI), designed as a tool to quantify the creative potential of EU member states. Given the complexity and multidimensionality of the creative economy, the measurement approach requires the identification of key concepts, dimensions and categories that enable comprehensive analysis and interpretation of this concept.

The academic consensus suggests that defining the creative economy requires developing a theoretical framework clarifying fundamental terms and categories, followed by the creation of a methodological instrument capable of capturing its role in economic and social development. In this context, a composite index is suitable because it combines numerous indicators into a single synthetic measure, allowing quantitative analysis of multi-sectoral and complex phenomena such as creativity and the creative economy.

The construction of the EU-CEI followed the guidelines of the OECD-JRC Handbook on Constructing Composite Indices: Methodology and User Guide (OECD/European Union/EC-JRC, 2008), which provides a systematic methodological framework based on ten interrelated steps, ensuring consistency, scientific validity and transparency in the index construction process.

The index construction process included the following phases and methods:

1. Definition of theoretical framework and indicators – Based on theoretical analysis and literature review, the main concepts of creativity, creative industries and the creative economy were identified, followed by the creation of a preliminary list of indicators relevant for measuring creative potential (Appendix 2).
2. Selection of variables – Indicators and their weights were determined using the Delphi method, which is highly suitable for establishing expert consensus. The process included two evaluation rounds (June and September 2023) involving 10 internationally recognized experts in the creative economy and tourism (Appendices 2 and 3). Experts were selected

using purposive (non-probability) sampling based on their demonstrated expertise in the fields of creative economy and tourism, including experience in quantitative and statistical analysis, in line with established Delphi methodology emphasizing the selection of information-rich experts (Patton, 2002; Okoli and Pawlowski, 2004).

a) In the first round, experts assessed the relevance, availability and validity of the proposed indicators, ensuring scientific rigor and practical applicability. In the second round, the importance of indicators was further evaluated and experts could suggest new variables to enrich the final index structure. Open-ended questions allowed for qualitative comments and deeper contextual understanding.

b) Based on feedback/final round and consensus, a final set of indicators was defined, reflecting the multidimensional nature of creativity and providing a solid foundation for the composite index construction (Appendix 4).

3. Imputation of missing data – K-nearest neighbor (KNN) method.
4. Data normalization – Min-max transformation applied to standardize data with different scales and units.
5. Multivariate analysis.
6. Weighting and aggregation – Indicators were weighted according to Delphi results and aggregated into dimensions and the overall index using linear aggregation.
7. Robustness and sensitivity analysis – Tested the stability of results under changes in weights and normalization methods.
8. Return to raw data – Ensured transparency and decomposability of the composite indicators.
9. Linkages with other variables – Established connections with other published indicators and regression analyses.
10. Visualization and interpretation – Presented as trends and comparative analyses across EU member states to highlight spatial dynamics and temporal changes in creative capacities.

Third phase, *comparative analysis* provides an initial empirical foundation for understanding variations in national creative profiles and serves as a preparatory analytical step for the subsequent econometric examination of the relationship between creativity and tourism performance. The comparative analysis is designed to assess and compare creative capacities across EU member states based on descriptive statistical analysis of the European Creativity Index (EU-CEI) and its three dimensions: Enabling environment, Creative base and Cultural vibrancy. The analytical approach focuses on capturing structural disparities in creative capacities and examining their potential relevance for tourism development.

Fourth phase, the *empirical phase* involved applying the developed European Creativity Index (EU-CEI) to EU member states and examining the role of creativity in shaping key economic indicators. As a preliminary step, descriptive statistics were conducted to summarize the main characteristics of the data, after which panel analysis was performed in the *R programme for the period 2011–2019 (excluding 2012 and 2014).*

Panel analysis, an econometric method combining time series and cross-sectional data (Baltagi, 2021), allows simultaneous analysis of temporal changes within units and differences between units, providing greater precision and deeper understanding of dynamic relationships between variables (Hsiao, 2014).

The choice of panel analysis was based on its ability to control for unobserved variables and heterogeneity among the units while accounting for temporal factors. As an econometric method, it allows for modeling complex economic processes (Gujarati and Porter, 2009), particularly relevant for studying the links between the creative economy, creativity and tourism development (Florida, 2019; UNCTAD, 2022). Fixed and random effects models were applied to test the stability and consistency of relationships between variables.

Dependent variable selection: *Economic dimension of tourism (total contribution of travel and tourism to GDP).*

Identifying key elements for sustainable tourism development is a challenge for any country (UNWTO, 2023). Achieving sustainable development requires balancing three core elements: economic growth, social inclusion and environmental protection (World Commission on Environment and Development, 1987). These elements are interconnected and crucial for the well-being of individuals and societies. Given the focus on the creative economy, the most methodologically appropriate approach for the empirical model was to use a globally recognized index allowing quantification and comparative analysis of sustainable tourism development (UNCTAD, 2022). Since no fully suitable index was available, operationalization was conducted via the economic dimension of tourism, with the total contribution of travel and tourism to GDP defined as the dependent variable (UNWTO, 2023).

The *number of tourist overnight stays* was used as a control dependent variable, as it directly measures tourism activity intensity independently of broader macroeconomic effects, allowing more precise testing of the relationship between development level (composite index) and actual tourism activity.

Analyses conducted in this phase included:

- Descriptive statistical analysis – Calculated mean values and standard deviations of the EU-CEI and its dimensions to identify countries with the highest and lowest creative potential.
- Panel regression analysis – Tested the impact of the EU-CEI on total tourism contribution to GDP using Fixed Effects and Random Effects models.
- Dynamic panel analysis (GMM) – Conducted to control for potential endogeneity and verify the robustness of previous results.
- Additional panel analysis – Examined the effect of creativity on the number of overnight stays as an alternative tourism indicator to further validate the findings.

Given the complexity of the research problem and the fact that the hypotheses were formulated within theoretical, integrative, comparative and empirical approaches - each with its own objectives, hypotheses and specific methodology, a detailed description of the research methods used is further elaborated in Chapters Three, Four, Five and Six. These chapters provide a systematic presentation of the methodological procedures, tailored to the requirements of each approach and allow for a clearer understanding of how theoretical concepts, instrumental tools and empirical data are interconnected within the framework of the dissertation.

1.5. Scientific and applied contribution

This dissertation contributes to science by integrating qualitative and quantitative approaches in the research of the role of the creative economy in tourism development.

The working hypothesis provides a broader interpretative perspective, guiding the research toward the synergy between the creative economy and tourism in the context of sustainable development. It enables the identification of mechanisms through which the creative economy contributes to innovative tourism offerings, the preservation of cultural heritage and the strengthening of local communities. The qualitative component of the research enriches the quantitative findings by interpreting the mechanisms underlying the statistically observed effects. Analysis of interviews, case studies and literature allows for a deeper understanding of how the creative economy shapes tourism offerings and engages local communities. Quantitative hypotheses enable the statistical testing of specific effects of the creative economy on the economic dimension of tourism, such as the contribution of tourism to GDP and the number of tourist overnight stays. This approach ensures empirically grounded evidence and precise verifiability of results.

The synergy of the working hypothesis with the quantitative and qualitative components allows for a scientific understanding of the role of the creative economy in tourism. It also provides a methodological example of integrating different research approaches and offers practical guidance for sustainable tourism development based on the creative economy.

Furthermore, the dissertation provides a new research focus significant for understanding the symbiotic relationship between the creative economy and tourism, aiming to identify which creative capacities the economy possesses and their ability to be effectively utilized for tourism and overall economic development.

Theoretical contribution: This doctoral dissertation contributes to the existing literature on the creative economy by creating a foundation for a deeper understanding of the relationship between the creative economy and tourism, providing insight into fundamental challenges and proposing directions for future research.

The Delphi process provided an important theoretical contribution to the development of the European Creativity Index (EU-CEI) by refining the initial indicator framework and introducing additional dimensions proposed by experts. This contribution enriched the conceptual understanding of the creative economy by shifting attention towards a broader, more multidimensional interpretation that extends beyond traditional economic and structural indicators. In particular, the expert-generated inputs highlighted a distinct analytical direction focused on qualitative, institutional and behavioural dimensions of creativity, including cultural participation, governance quality, social trust and inclusiveness. This perspective strengthens the understanding of creativity as a socio-economic phenomenon embedded within cultural and institutional contexts, thereby expanding the conceptual scope of the index and offering a more comprehensive foundation for interpreting creative capacity across countries.

Instrumental contribution: The research contributes through the development of a new composite index that can be applied to analyze tourism and the economy among EU member states. The structure of the index is based on expert consensus through a two-round Delphi method, thus avoiding subjectivity in selecting key indicators, representing a methodological contribution in its construction.

The comparative analysis is based on the values of the constructed European Creativity Index (EU-CEI) and serves to identify differences in creative capacity across EU member states. On this basis, countries are classified into groups according to their level of creative development (e.g., higher and lower creative capacity), enabling a structured interpretation of spatial disparities in creative performance.

Methodological contribution: The methodological contribution of this dissertation lies in the application of panel data analysis and dynamic econometric techniques, through which the effect of the creative economy on tourism outcomes is empirically examined and its role in tourism development is systematically defined.

Applied contribution: The scientific contribution is evident in a deeper understanding of the role, potential and interaction possibilities of the creative economy and tourism. Furthermore, the research emphasizes the measurement of the creative economy, which is crucial for understanding the symbiotic relationship between creativity and tourism and for gaining insight into the actual creative capacities that economies possess. A key policy implication is that creative tourism initiatives represent effective tools through which governments can attract visitors and retain residents, thereby improving the quality of life for both groups.

1.6. Research structure

The dissertation consists of eight interconnected chapters, each contributing to a coherent analytical and conceptual framework for examining the effect of the creative economy on tourism development.

Chapter 1, the *Introductory chapter*, presents the research problem, subject and objectives of the research and establishes its theoretical and empirical relevance. It further defines the research hypotheses, outlines the methodological approach and scientific methods employed and specifies the expected scholarly contribution of the dissertation.

Chapter 2, *Literature review*, provides a comprehensive conceptual foundation for the research. It examines key concepts and theoretical perspectives of the creative economy through four sub-chapters, reflecting the main strands of contemporary academic literature. Given the multidimensional and interdisciplinary nature of creative industries, this chapter clarifies the core conceptual elements necessary for understanding the creative economy as a complex phenomenon and for establishing a solid theoretical basis for the empirical analysis.

Research methodology and findings are presented in the following chapters.

The conceptual dimension of the research is presented in **Chapter 3**, *Creative economy and tourism: global insights*, which draws on an integrative literature review and in-depth expert interviews. This chapter explores the synergy between the creative economy and tourism from the perspective of sustainable destination development and provides qualitative insights into their underlying dynamics.

Chapter 4, *Measuring creative performance: a Delphi-based composite index for EU economies* addresses the instrumental dimension of the research. It reviews existing approaches to measuring the creative economy, with particular emphasis on composite index construction and develops a methodological framework for designing a robust measurement instrument based on the Delphi method and established international guidelines.

Chapter 5, *Comparative analysis of creative capacity across EU economies*, presents the comparative dimension of the research. It examines variations in creative capacity across EU member states, offering a systematic cross-country assessment that highlights structural differences and spatial patterns of creative development.

Chapter 6, *Modelling creative economy and tourism – evidence frome EU economies*, presents the quantitative dimension of the research. It reports the results of panel data analysis conducted to estimate the effect of the creative economy on tourism development across EU member states, thereby providing the empirical foundation for hypothesis testing.

Chapter 7, *Discussion*, interprets the empirical findings and situates them within the broader theoretical and empirical literature on the creative economy and tourism. It aims to deepen the understanding of the estimated effects and to critically evaluate their implications for theory development, policy formulation and practical application.

Chapter 8, *Conclusion*, synthesizes the key findings of the dissertation, discusses methodological and empirical limitations and outlines directions for future research. It also highlights the overall scientific contribution of the research to the fields of creative economy and tourism studies.

At the end of the dissertation, there is a list of references, a list of tables and figures, as well as appendices.

2. LITERATURE SYNTHESIS AND CONCEPTUAL FRAMING

The chapter *Literature synthesis and conceptual framing* provides a theoretical framework and an overview of research on the concepts of the creative economy, with the aim of determining the scope of scientific knowledge in this field. The body of literature dealing with the creative economy is remarkably broad and diverse, yet also interconnected. The concepts related to the creative economy require special attention, as many authors focus their analyses on just one segment of this complex phenomenon. Historical development, definitional distinctions and classification challenges each present issues in their own right, requiring systematic and detailed treatment. For the sake of clarity and focus, this chapter highlights only a few key aspects as introductory foundations for further discussion.

Throughout history, numerous authors have marked evolutionary turning points in the understanding and research of the creative economy through their work. Based on the literature review, their contributions can be categorized into five main research directions that are particularly relevant to this research and trace the development of the concept:

1. **The first research direction** relates to the long tradition of cultural economics contributing to cultural industries (Howkins, 2001; Hesmondhalgh, 2002), which evolved into a focus on cultural and creative industries (CCIs) based on the DCMS report (1998). This strand of research analyzes the conceptual foundations of the terms *creative* and *cultural* - both ambiguous and multi-layered. The creative economy is just one of many terms used to describe the growing importance of creative processes and knowledge creation in the economy as a whole (subchapter 2.1).
2. **The second research direction** stems from Florida's original concept of the *creative class*, with interest focused on the connection between the creative class, growth and economic development (Stolarick and Florida, 2006; Boschma and Fritsch, 2009; Florida, 2014). Florida (2002) identifies the *creative class* / *developing society* (subchapter 2.2).
3. **The third research direction** pertains to the concept of the *creative city*, beginning with the seminal contributions of Landry (2000, 2012a) and Landry and Bianchini (1995) and continuing in the later developmental phases of the concept (Scott, 2014). The idea of the creative economy is widely applied in urban economies. The term defines a city in which diverse cultural activities are an integral part of the city's economic and social functioning (subchapter 2.3).
4. **The fourth body of literature** deals with *indicators and components of creativity* – how to measure it? The importance of the creative economy for the economic development of regions has spurred interest in measuring its scope through complex creativity indicators. The main existing cultural and creative indicators are applied at the national or large urban scale, while studies examining regional levels and broader country samples remain scarce (Mikulić and Jelušić, 2025). Recognizing the impact of cultural and creative industries on

economic growth, there is a clear need to identify and evaluate that impact (subchapter 2.4).

5. **The fifth research direction** relates to the concept of *creative tourism*. The growing cooperation between tourism and creativity has been driven by the search for alternative tourism development models and by the expansion of the creative economy (Long and Morpeth, 2016; OECD, 2014). The integration of creativity into tourism has become a common diversification strategy, particularly within cultural tourism. Creativity is being used to transform traditional cultural tourism, shifting the focus from tangible heritage toward intangible culture and greater integration of the everyday life of destinations (subchapter 2.5).

The following sections present the evolution of the creative economy concept and its related research directions, offering a systematic analysis of each identified research stream, with particular attention paid to their relevance to the context and objectives of this research.

2.1. Conceptual evolution of the creative economy

One of the central challenges of the first research direction in academic literature has been the need to conceptualize and define the key terms. The *creative economy* is only one of many terms used to describe the growing importance of creative processes and knowledge creation in the economy as a whole. Several other terms are used in relation to the development of creativity and culture, including *cultural industries*, *creative industries*, *copyright industries* and *content industries*. These terms carry "different meanings and scopes and are used in various ways in different contexts, which has led to wide-ranging debates and even controversies" (Creative Metropoles, 2012, p. 8). Among this multitude of terms, *creative economy* has become the most commonly used, as it primarily encompasses the very essence of the creative industries.

The first research direction of the creative economy focuses on the historical development of concepts and the conceptualization of the cultural and creative economy, including the cultural and creative industries (CCIs). This direction is grounded in the works of Howkins (2001) and Hesmondhalgh (2002), as well as the British DCMS report (1998), which laid the foundations for the modern understanding of this sector.

In general, this line of research aims to:

- clearly distinguish and define the concepts of cultural economy, creative economy and creative industries;
- understand the development and transformation of cultural production into a commercially value-oriented sector;
- develop generally accepted classifications of industries within the creative sector;

• identify the long-standing challenges in standardizing definitions and conceptual frameworks that have persisted for more than two decades.

2.1.1. Creativity as a foundational concept

Creativity is generally understood as the individual or collective ability to generate ideas, solutions, or expressions that are both novel and valuable (Florida, 2014; Runco and Jaeger, 2012). As a foundational concept, creativity underpins innovation, cultural production and the development of creative industries, which makes it central to discussions on the creative economy.

Although widely recognized as a driver of economic and social development, creativity is difficult to measure directly due to its intangible and multidimensional nature. In empirical research, it is therefore commonly approached indirectly through proxy indicators such as the concentration of creative workers, investments in research and development, educational attainment and innovation outputs. This broader understanding shifts the focus from creativity as an individual attribute toward creativity as a systemic resource embedded in institutions, human capital and socio-economic structures.

An important contribution to this perspective is provided by Richard Florida through the 3Ts framework - talent, technology and tolerance - which conceptualizes creativity as emerging from environments capable of attracting skilled individuals, supporting innovation and fostering openness and diversity. In this view, creativity is not only a matter of artistic or intellectual production but also a structural capacity linked to regional competitiveness and development.

This broader conceptualization contributed to what has often been described as the *creative turn* - a shift from viewing culture primarily through symbolic and heritage values toward recognizing creativity as an economic resource, a source of innovation and a driver of territorial development. This shift created the foundation for the evolution from cultural economy perspectives toward the concepts of creative industries and subsequently, the creative economy. Rather than treating culture and creativity as separate domains, this transition positioned creativity at the intersection of culture, innovation and economic development, providing the conceptual basis for the frameworks discussed in the following chapter.

2.1.2. Cultural economy and the conceptual turn

The term *cultural industry* has its roots in the Frankfurt School of Critical Theory, grounded in Marxist ideology and critical social theory (Barker, 2004, p. 46). The concept is traditionally attributed to Theodor Adorno and Max Horkheimer, whose essay *The Culture Industry:*

Enlightenment as Mass Deception (Adorno and Horkheimer, 1944) laid the foundations for understanding the cultural industry as a sector in which cultural products are standardized and primarily produced for the monetary gain of those in power (Adorno and Horkheimer, 1944, pp. 120–121). The authors emphasize that "culture now impresses the same stamp on everything" (Adorno and Horkheimer, 1944, p. 120), with the film, music and magazine sectors serving as examples of industries that - faced with public regulation, corporate financing and competition - often sacrifice individuality and creativity in pursuit of the widest market acceptance (Adorno and Horkheimer, 1944, p. 121). Adorno's later works on film, radio, newspapers, jazz and popular music reinforce the thesis that under monopolistic capitalism, art and culture are fully integrated into the economic system (Adorno, 1991).

Adorno's portrayal of the cultural industry resonated with postwar concerns about mass, industrial, or "Americanized" culture, sparking debates on cultural policy and the protection of European cultural traditions. His contribution to modernist aesthetics and cultural policy - focusing on formal logics and contradictions in the relationship between art and society - had a wide intellectual influence. Adorno and Horkheimer's negative view of the cultural industry stems from their association of culture with art and human creativity, which should reflect life, critique social conditions and guide society toward an ideal or utopian state (Hesmondhalgh, 2013, p. 24). The commodification of culture, especially within the context of popular mass culture, hindered the fulfillment of this role.

In contrast, David Throsby, approaching the issue from the perspective of the economics of art, developed a concentric model of cultural industries, categorizing them into four levels (Throsby, 2001; 2007):

- Core creative arts: literature, music, performing and visual arts;
- Other core cultural industries: film, museums and libraries;
- Wider cultural industries: heritage services, publishing, sound recording, television, radio, video and computer games;
- Related industries: advertising, architecture, design, fashion.

Throsby distinguishes cultural industries according to the degree of creativity, where "pure" creativity dominates in the core arts, while applied creative skills are positioned on the periphery. However, the model is not without its problems: for example, literature is classified among the core creative arts, while publishing belongs to the wider cultural industries; visual arts are separated from museums, film, or fashion; music is central, but sound recording is not. Part of the issue stems from statistical and methodological limitations, as the model was primarily conceived as a framework for measuring employment, whereas other aspects - such as the actual process of creative labor and its commercialization - remain insufficiently addressed.

This hierarchical model, which views art either as "pure" creativity or as raw material for commercial reproduction, does not adequately reflect the real dynamics of the sector and fails to capture the tensions between creative labor and the conditions under which it takes place. This points to the need for more nuanced and empirically grounded approaches to researching cultural industries.

The development of the *creative economy* concept builds upon these earlier theoretical frameworks of cultural industries, expanding them into broader socio-economic dimensions. While Throsby (2001; 2007) emphasizes the hierarchical structure of cultural and creative activities according to the degree of "pure" creativity, contemporary approaches to the creative economy integrate cultural, economic, social and innovation-related aspects, recognizing the creative sector as a key driver of competitiveness and sustainable development (Florida, 2002). Such a broader framework enables the recognition of creative potential not only in traditional artistic and cultural industries but also in new creative sectors shaping tourism destinations, innovative products and visitor experiences.

In the context of tourism, the creative sector plays a dual role: on one hand, it enriches the tourism offer through innovative cultural, artistic and experiential products; on the other, it acts as a catalyst for local and regional development, contributes to the creation of destination identities and strengthens the socio-economic capital of communities (Richards, 2011). The application of Throsby's categories allows for the identification of different layers of creative contribution in tourism, from the core creative arts that shape cultural experiences, through the broader spectrum of cultural industries that support tourism infrastructure and programs, to related industries that add value through design, architecture and innovation in tourism products.

This integration of theoretical approaches - from Adorno and Horkheimer's critical analysis of the cultural industry, through Throsby's economic models, to contemporary concepts of the creative economy - provides a solid conceptual foundation for researching the role of the creative sector in tourism. It enables more precise definition of creative potential indicators and the development of methodologically grounded instruments, such as a *European Creativity Index*, which quantifies and compares the impact of creative activities on tourism outcomes and contributes to the development of sustainable and competitive tourism strategies.

The transition from the term "cultural industry" to "cultural industries" coincides with the emergence of the "creative industries" concept, which resulted from a political and institutional shift aimed at valorizing creativity as a key driver of economic and social development. The pivotal moment in this transition occurred in 1997, when the UK government formally introduced the term creative industries as a central element of its cultural and economic policies, replacing the earlier notion of cultural industries (O'Connor, 2011, p. 38). This terminological and conceptual change

reflects the expansion of cultural industry policies and the establishment of a new agenda emphasizing the commercial potential and innovative role of creative activities.

In the traditional framework of cultural industries, as described by Throsby (2001; 2007) and Towse (2003), attention was focused on cultural production whose primary attribute was symbolic or artistic value. The term creative industries, which first appeared in the Australian report *Creative Nation* (Cutler and Company, 1994) and subsequently gained broad visibility in the 1997 UK DCMS framework, expanded the scope of interest beyond classical art to include activities with commercialization potential (UNCTAD, 2004). Further elaboration of the concept in DCMS reports (1998; 2013) enabled the consolidation of a coherent framework and the definition of the key dimensions of creative industries in contemporary cultural and economic policy.

The conceptual shift from *"cultural industries"* to *"creative industries"* allowed for a more empirically grounded approach to the complex structure of cultural production systems and the dynamic processes within them (Hesmondhalgh, 2002). Building on Williams's (1981, p. 11) idea of a "system of meaning", Hesmondhalgh (2002) emphasizes the role of cultural industries in producing social meaning through texts and symbols. According to him, the core cultural industries include television, radio, cinema, magazine and book publishing, music production, advertising and the performing arts - activities whose primary purpose is communication with audiences and the creation of cultural products (Hesmondhalgh, 2002, p. 12). Activities that do not employ industrial methods, such as theatre or the production and sale of visual artworks, are categorized as "peripheral cultural industries*"* (Hesmondhalgh, 2002).

Although this approach pragmatically focuses analysis on industrial and standardized processes, it overlooks sectors with high prestige and strong commercialization, such as contemporary art exhibitions, art auctions, opera, or musicals (Hesmondhalgh, 2002). Moreover, the model implies a distinction based on the technological reproducibility of products, which does not fully capture the actual dynamics of the creative sector (Miège, 1987; 1989). Nevertheless, this conceptual distinction enables a better understanding of the interconnections between production and distribution technologies, changes in business models, the relationship between symbolic and informational goods and the interactions between culture and communication systems (Hesmondhalgh, 2002).

This transition from cultural to creative industries provides the foundation for further theoretical and methodological reflections on the role of the creative sector in the economy and tourism. It links cultural production with innovation and economic value creation and establishes a framework for developing instruments such as composite creativity indices, which make it possible to quantify and compare creative potential across countries and regions (UNCTAD, 2004; DCMS, 1998; 2013).

2.1.3. The concept of creative industries

Creative industries have been declared the key drivers of the new economy, with the promise of being a source of growth and wealth creation (Kong, 2014). Over the past two decades, discourse on creative industries has dominated academic and policy debates, largely replacing earlier references to cultural industries. Many governments have integrated creative industries into their economic development strategies, while scholarly interest in the field has grown substantially. However, despite the enthusiasm, critics warn of the complexities and challenges associated with the concept that must be addressed before policy adoption and implementation. Without conceptual clarity and careful research, a more cautious policy approach is required (Kong, 2014).

The term *creative industries* first appeared, according to records, in Australia in 1994, introduced by strategic consultants Cutler and Company and was later adopted by the UK, which sought new foundations for growth in its post-industrial economy (DCMS, 1998; O'Connor, 2007). Through initiatives of the new British Labour government from 1997, led by Minister Chris Smith (1998) and the Department for Culture, Media and Sport (DCMS), the term gained institutional and political significance and began to be used in the formulation of industrial policies. As part of these activities, the *Creative Industries Task Force* was established and in 1998 the *Creative Industries Mapping Document* was published (updated in 2001).

This document provided the standard definition of creative industries:

"Those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (DCMS, 1998, p. 3).

The definition covers thirteen sectors: advertising, architecture, art and antiques, computer games/entertainment software, crafts, design, fashion design, film and video, music, performing arts, publishing, software and television and radio.

This initiative proved highly influential, as it highlighted the economic value of creative activities - including culture, media and design - and recognized creativity as a key resource of modern economies shaped by culturalization (Lash and Urry, 1994; Du Gay and Pryke, 2002), digitalization and the production of highly designed products and services.

UNCTAD (2008) defines creative industries as cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs. These include knowledge-based activities often linked to the arts, which have the potential to generate income through trade and intellectual property rights. Creative industries encompass both tangible products and intangible intellectual or artistic services with creative content, economic value and

market objectives - positioned at the intersection of the craft, service and industrial sectors - forming a new, dynamic segment of global trade (UNCTAD, 2008).

UNESCO (2009) defines creative industries as those in which the product or service contains a substantial artistic or creative component, encompassing a broader range of activities including cultural industries as well as any cultural or artistic production, whether live or produced as an individual unit. These definitions emphasize the multidimensional nature of creative industries and their role in linking art, creativity and economic development, thereby establishing the foundation for further theoretical and empirical research into the creative economy (UNESCO, 2009).

The concept of creative industries connects a range of sectors that were not previously formally associated. Despite a long tradition of research exploring the role of creativity across various sectors of post-industrial economies (including advertising and software), this idea has faced criticism - many argue that such categorization was driven by the UK's desire to appear as a global leader in a field it had itself defined. Nevertheless, this approach served as the basis for claims that the creative sector is significantly larger than previously thought and growing much faster than the economy as a whole.

Creative industries are defined as activities that originate from individual creativity, skills and talent and that have the potential to create wealth and employment through the development and exploitation of intellectual property, encompassing thirteen sectors (DCMS, 1998): 1. Architecture; 2. Visual and Performing Arts; 3. Crafts; 4. Design; 5. Publishing; 6. Film, Video and Photography; 7. Art and Antiques Market; 8. Fashion; 9. Music; 10. Advertising; 11. Computer Software and Computer Services; 12. Interactive Leisure Software (Video Games); 13. Television and Radio.

Table 3. Classification of cultural and creative i ndustries

Circles	***Sectors***	***Sub-sectors***	***Characteristics***
Core Artistic Fields	Visual arts	Crafts; painting; sculpture; photography.	Non-industrial activities. Products are prototypes and may be protected by copyright.
	Performing arts	Theatre; dance; circus; festivals.	
	Heritage	Museums; libraries; archaeological heritage; archives.	

1st Circle: Cultural industries	Film and video Television and radio Videogames Music Books and press	 Sound recording market; concerts; revenues collected by music associations. Book publishing; magazines; newspaper publishing.	Activities intended for mass reproduction. Products are based on copyright.
2nd Circle: Creative industries and activities	Design Architecture Advertising	Fashion design, graphic, product and interior design.	Activities are not necessarily industrial and may include prototypes. Although products are based on copyright, they may also involve other forms of intellectual property. The use of creativity is essential to the functioning of these sectors.
3rd Circle: Related industries	Computer industry	Production of MP3 devices; telecommunication equipment.	This category is difficult to define using clear criteria and includes sectors that largely depend on the previously described circles, such as the ICT sector.

Source: Rašić Bakarić et al. (2015, p. 34), based on the KEA study

The sectors within the creative industries - established arts (visual and performing arts, dance, theatre, etc.), established media (broadcasting, film, TV, radio, music) and new media (software, games, e-commerce and e-content) - range from the decidedly non-commercial to the high-tech and commercial. This continuum stretches from the culturally specific and non-commercial to the

globalized and commercial, where generic creativity, rather than culturally specific content, drives progress. This continuum is less coherent than the precise definitions of art, media and cultural industries that traditionally structure thinking and policy in this field, but it seeks to account for the profound changes caused by digitalization, convergence and globalization.

In the literature, seven models are regularly mentioned as illustrations of different ways of defining and developing creative industries. Numerous attempts have been made to better understand the sectors and boundaries of creative industries:

1. Howkins Model – In his 2001 book, Howkins identifies 15 industries that contribute to the creative economy through the creation of creative products and services, ranging from art to science and technology. He defines industries as those that offer "an economic good or service that results from creativity and has economic value" (Howkins, 2001).
2. UK DCMS Model – Developed in 1998 in the UK, it defines creative industries as those requiring "creativity, skill and talent, with the potential for wealth and job creation through the exploitation of intellectual property" (DCMS, 1998).
3. Concentric Circles Model - Cultural economist David Throsby proposes the "concentric circles" model, in which the core consists of the creative arts (literature, music, performing arts, visual arts) as the "locus of creative ideas" (Throsby, 2001: p. 112). Surrounding the core are the cultural industries (film, museums, libraries), the wider cultural industries (heritage services, publishing, sound recording, TV and radio, video and computer games) and finally the related industries (advertising, architecture, design, fashion), depending on the degree to which they combine "pure" creativity with other inputs.

   The Work Foundation (2007) offers a different version of concentric circles: the core includes all forms of original production; then come the cultural industries that seek to commercialize those creative products; next are the creative industries with functional applications (architecture, design, advertising); and finally, the sectors that sell *experiences* dependent on creative input (theme parks, museums, galleries, etc.).
4. WIPO (Copyright) Model - Based on industries directly or indirectly involved in the creation, production, broadcasting and distribution of materials protected by copyright (World Intellectual Property Organization, 2003). It distinguishes between industries that produce intellectual property and those that distribute goods and services, as well as partial copyright industries where intellectual property represents only part of total production.
5. UNCTAD Model - Expands the concept of "creativity" beyond artistic activities to "any economic activity that produces symbolic products with a strong reliance on intellectual property and for as broad a market as possible" (UNCTAD, 2004). It differentiates between "upstream activities" (traditional cultural activities such as performing or visual arts) and "downstream activities" (closer to the market, such as advertising or publishing). From this perspective, cultural industries represent a subset of creative industries.

6. NESTA Model – Developed to further elaborate the DCMS model for national policy purposes (Creative Economy Program). NESTA proposes four overlapping subgroups-originals, content, services, experiences - based on business models.
    - Originals (e.g. fine arts) are based on the production of rare, unique works;
    - Content covers mass media for broad consumption;
    - Services such as advertising and architecture are business-to-business rather than end-consumer oriented;
    - Experiences attract audiences to live events (music festivals, theme parks, museums, galleries).

   This model emphasizes differences between sectors, identifies common patterns in value creation and positions creative industries at the heart of a broader economy increasingly dependent on creative processes and services (NESTA, 2006; p. 55).
7. Conference Board of Canada / Statistics Canada Model - Developed in 2008 as a first step toward measuring and understanding Canada's creative economy. It is closely aligned with Howkins' definition and the earlier DCMS model.

There is also literature that defines creative industries as part of the "Experience Economy" (Pine and Gilmore, 1999; Andersson and Andersson, 2006).

Justin O'Connor (2011: p. 92) conceptualizes creative industries as a segmentation of *art–media–design*, eliminating the topography of concentric circles - each being an industrial sector that combines cultural and social value and balances between intrinsic and instrumental value, differing mainly in functionality.

Naturally, there are also conceptualizations that go beyond industrial or sectoral perspectives. Some authors propose approaches that link creative industries with the fundamental processes of innovation within an evolving economy (Potts and Cunningham, 2008).

Table 4. Creative industries classification: a comparative framework approach

Creative Industries	*DCMS (2009, UK)*	*WIPO Copyright Industries (2003)*	*Eurostat LEG (2000)*	*KEA European Affairs (2006)*	*UNCTAD (2010)*	*European Parliament (2016)*	*NESTA (2015, Nathan et al.)*
Printing & Publishing	✓	✓	✓	✓	✓	✓	✓
Advertising & related services	✓	✓	✓	✓	✓	✓	✓
Architecture & engineering (only architecture)	✓		✓	✓	✓	✓	✓
Arts & antique markets/trade	✓		✓	✓	✓	✓	✓
Crafts (artistic)	✓			✓	✓	✓	✓

Creative Industries	*DCMS (2009, UK)*	*WIPO Copyright Industries (2003)*	*Eurostat LEG (2000)*	*KEA European Affairs (2006)*	*UNCTAD (2010)*	*European Parliament (2016)*	*NESTA (2015, Nathan et al.)*
Design / specialised design services	✓		✓	✓	✓	✓	✓
Designer fashion & high-end industries	✓			✓	✓	✓	✓
Film / motion picture & video industries	✓	✓	✓	✓	✓	✓	✓
Music / sound recording industries	✓	✓	✓	✓	✓	✓	✓
Performing arts (theatre, dance, opera, circus, festivals, live entertainment) / independent artists, writers and performers	✓		✓	✓	✓	✓	✓
Photography	✓			✓	✓	✓	✓
Radio & television (broadcasting)	✓	✓	✓	✓	✓	✓	✓
Software, computer games & electronic publishing	✓	✓	✓	✓	✓	✓	✓
Heritage / cultural sites (libraries & archives, museums, historic & heritage sites, other heritage institutions)	✓		✓	✓	✓	✓	✓
Interactive media	✓	✓		✓	✓	✓	✓
Other visual arts (painting, sculpture)	✓		✓	✓	✓	✓	✓
Copyright collecting societies		✓			✓		
Cultural tourism / recreational services	✓			✓	✓	✓	✓
Creative R&D	✓			✓	✓	✓	✓
Public relations and communication activities / translation & interpretation	✓			✓	✓	✓	✓

Source: Boix-Domènech and Rausell-Köster (2018)

The economic impact of the creative industries on the European Union can be analyzed in terms of their direct contribution to production, employment, productivity, innovation and entrepreneurship. In addition to their direct contribution, the most important effect can be found in their indirect or multiplier effects on the economy. These effects can be either positive or negative and the intensity and direction of impact depend on location.

General scenarios linking the creative industries to economic performance were proposed by Potts and Cunningham (2008):

1. Welfare Model: The creative industries are affected by Baumol's cost disease (Baumol and Bowen, 1965); their productivity grows more slowly than in the rest of the economy, even when subsidized, as they are primarily focused on improving social welfare.
2. Competitive Model: The creative industries are seen as just another industrial sector with no greater impact on technological change, innovation, or productivity than any other economic activity.
3. Growth Model: The creative industries are considered drivers of economic growth, with a more than proportional impact caused by both demand and supply-side effects. Mechanisms include sectoral effects, industry spillovers, improvements in technical efficiency, knowledge transfer and value creation that attracts skilled workers and tourists.
4. Innovation Model: The creative industries are viewed as part of the process of economic evolution, providing evolutionary services to the innovation system and facilitating transformation across the entire economy (Potts, 2009a).

According to several general findings (KEA, 2006; Power and Nielsén, 2010; TERA, 2010, 2012; EY, 2014; Boix and Soler, 2017), the creative industries have significant direct and indirect effects on the European Union's economy. They contribute to employment, with the direct contribution ranging from 2.6% of production and employment under conservative, culture-based definitions to as high as 7.8% when using comprehensive frameworks, such as those based on UNCTAD (2008, 2010).

The creative industries generate spillover effects that influence the rest of the European economy through indirect, induced and evolutionary mechanisms (Rausell et al., 2011; De-Miguel-Molina et al., 2012; Marco et al., 2014; Boix et al., 2013; Boix and Soler, 2017). These mechanisms include both supply- and demand-side effects on output growth, as well as indirect effects associated with the ability of the creative industries to generate technological progress and alter the evolutionary path of economic development. Most of the contribution comes from creative service industries, while the direct contribution of creative manufacturing industries is small—and the total contribution, including both direct and indirect effects, may even be negative. The direct contribution of creative manufacturing industries does not exceed 1% of GDP and 1.6% of employment. Labor productivity in creative manufacturing is around half of the EU average, while productivity in creative services is slightly above the EU average. Econometric analyses by Boix et al. (2013) and Boix and Soler (2017) show that higher levels of creative manufacturing reduce regional labor productivity, whereas higher levels of creative services have a multiplier effect on regional labor productivity in the EU.

2.1.4. Theoretical perspectives on the creative economy

The cultural economy, as the forerunner of the creative economy, dealt with the analysis of cultural goods and services and their economic and social effects. The focus was on how cultural

production contributes to social meaning, identity and the development of creative potential. With the development of the concept of the creative economy, emphasis shifted toward the commercial and market dimensions of cultural production, where creative ideas became a key resource for economic growth (Howkins, 2001).

The concept of the creative economy emerged in the 1990s as a politically motivated "attempt to change the way the value of art and culture was discussed", as these were previously seen as marginal to economic life and dependent on public subsidies (British Council, 2010, p. 15). Since the publication of the first reports on the creative industries (UNCTAD and UNDP, 2010), cultural and creative industries have flourished worldwide (Richards, 2018a). Since the mid-1990s, these industries have become central to cultural policies, first in Europe and Australia and later globally, through the Creative Economy Reports. As a result, nearly every country today includes the concept of cultural or creative industries in its cultural and development policies.

The spread of creativity-related concepts reflects a general "creative turn" in society - visible in literature, urban development, cultural policy, economics, aesthetics, academia, theatre, architecture and education (Richards, 2020). Richards and Wilson (2007a) argue that this "creative turn" in the social sciences evolved from an earlier "cultural turn," when the expansion of the concept of culture began to undermine its explanatory power and "culture" itself lost the ability to distinguish among social groups, economic classes and spaces.

During the 20th century, key demographic, economic and social processes - together with globalization and advances in information and telecommunication technologies - spurred the emergence of the creative economy. In advanced economies, this trend represents a shift from an industrial economy to a knowledge- and information-based economy (Howkins, 2001; Florida, 2002; Evans, 2001, 2009; Hesmondhalgh and Pratt, 2005; Hutton, 2004; Pratt, 2004, 2005; Pratt and Jeffcutt, 2009). Globalization has intensified competition in this sector as consumer lifestyles have changed, with greater use of ICT and a stronger focus on sustainability. Business innovation is now understood as the process of developing and applying creative ideas in a commercial context (Bakhshi and McVittie, 2009). At the same time, even the most traditional creative activities dependent on culture or heritage are being transformed through new technologies.

Creativity, in the context of the creative industries, can be viewed as an artistic-cultural, expressive idea of cultural "creation" that connects naturally with entrepreneurship and the generation of intellectual property from cultural products. When film, music, dance, art, fashion and similar activities are grouped under the term "creative," this actually represents a culturally specific understanding of creativity.
Economically, creativity can be defined as a human activity focused on generating intangible assets - characterized by novelty, innovation, or rarity (Alexy et al., 2018).

Creativity is a complex phenomenon that can be defined across psychology, sociology and economics. Schumpeter (1911) defined creativity as a dynamic process of innovation endogenous to the economy - one of the first to acknowledge the economic dimension of creativity. Lundvall and Johnson (1994) explored the relationship between the creation of individual creative ideas and their absorption or support within the public and private sectors - not only the creation of ideas, but also the speed and capacity of their absorption are crucial.

The creative economy refers to the economic value created by enterprises and individuals involved in producing and distributing goods and services with creative and artistic content, innovation, or intellectual property. It encompasses industries providing cultural, entertainment and artistic products and services - such as music, film, visual and performing arts, design, architecture, fashion, advertising and software development (Gouvea et al., 2020, p. 4). The creative economy is regarded as a key driver of economic growth, innovation and employment, closely linked with tourism, urban regeneration and placemaking initiatives (OECD, 2014).
The commercial dimension of creativity became more clearly articulated in the early 2000s, when authors such as Richard E. Caves (2000), David Throsby (2000) and John Howkins (2001) drew major attention to the issue through their seminal works.

Before Richard Florida introduced the concept of the "creative class," a group of organizations and researchers in New England launched the Creative Economy Initiative in 1998 to study and promote the regional cultural economy. Their goal was to demonstrate that creative enterprises and individuals significantly contribute to local and regional economies by uniquely stimulating other sectors (DeNatale and Wassall, 2007).

The conceptual understanding of the creative economy varies among researchers and policymakers. While definitions differ, there is a consensus that it represents an economic sector based on innovation, creativity, cultural heritage, arts, design, media and technology, with significant potential for job creation and economic growth:

- John Howkins (2001): Popularized the concept in *Creative Economy*, defining the creative economy as the value of creative products multiplied by the number of transactions. He approached it through an industrial lens, classifying industries according to types of intellectual property - copyrights, patents, trademarks and designs - and emphasizing creativity as a driving force of economic growth.
- Richard Florida (2002): Defines the creative economy as an economic system in which industries and enterprises relying on creativity, innovation and intellectual property generate economic value and contribute to regional growth and development. This includes advertising, design, media, entertainment, software, arts, architecture and even crafts requiring originality and creativity. Florida argues that the creative economy is a key driver of 21st-century growth, with cities and regions fostering creativity, diversity and inclusivity most likely to thrive in a knowledge-based economy. His book *The Rise of the Creative*

Class (2002) links creativity, innovation and regional economic growth, while his article *The Creative Class and Economic Development* (2014) emphasizes how creative industries contribute to employment, economic development and innovation.

- DCMS (2006): Defines the creative economy as activities based on creativity, individual talent and skills, with the potential to generate jobs and wealth through the creation and exploitation of intellectual property.
- Markusen et al. (2008): See the creative economy as a cluster of industries revolving around creative clusters, creative labor and creative communities.
- David Throsby (2010): Defines cultural goods and services derived from human creativity, including intellectual property protections, describing the cultural sector as dual in nature - artistic/cultural content plus industrial organization.
- Andy Pratt (2005): Defines it as a set of enterprises and organizations producing and distributing cultural goods and services, including art, design, fashion, film, music, publishing, advertising, architecture, games and software, emphasizing their ability to convert cultural resources into marketable products.
- John Hartley (2005): An evolving economic sector associated with creating and exploiting intellectual property, including cultural industries and knowledge-intensive sectors, highlighting its role in economic growth and job creation while balancing economic, social and ecological values.
- Stuart Cunningham (2002): A group of enterprises, institutions and activities deriving economic value from ideas, information, knowledge and cultural content, including both traditional and new industries (e.g., video games, online content).
- UNCTAD (2022): Notes that the definition varies depending on perspective or purpose. Historically, authors associated creativity with producing social meaning in texts and symbols (music, images, stories), tracing early symbolic production back to prehistoric sculptures and cave drawings.

The broader significance of the creative economy is highlighted in Creative Britain (DCMS, 2008), which emphasizes that the long-term success of the UK economy as a hub of creativity and innovation depends on effective long-term creative industry development policies, including: Urban and regional policy initiatives; Educational reforms; Broader societal participation.

Nesta, in 2014, emphasized the need to redefine the term, proposing a simpler definition: the creative economy as a sector specialized in leveraging creative talent for commercial purposes. Robert Hewison (2014), in Cultural Capital – The Rise and Fall of Creative Britain, argues that the essential characteristic of a system is its configuration of relationships, suggesting that understanding how the creative economy is organized is more important than merely defining its activities.

These industries, particularly small and micro-enterprises at the peak of creativity, are increasingly economically significant and represent a precursor to a new economic order, introducing new paradigms in business organization, education, value measurement and urban planning. Notably, highly creative occupations are largely immune to automation and the Fourth Industrial Revolution, with Nesta (2015) showing that automation poses little to no risk for 86% of highly creative jobs in the U.S. and 87% in the UK (Bakhshi et al., 2015).

The *Creative Economy in New England* report (2000) identifies three components:

1. Creative Cluster - Enterprises and individuals producing cultural products, both commercial and nonprofit.
2. Creative Workforce - Specialists with cultural and artistic skills contributing to leading industries (not limited to arts and culture).
3. Creative Community - Geographical area with a concentration of creative workers, enterprises and cultural organizations.

Since there is no universally accepted definition, UNCTAD (2008) provides a practical definition: The creative economy is an evolving concept based on creative assets that can generate economic growth and development. It:

- Stimulates revenue generation, employment and exports, while promoting social inclusion, cultural diversity and human development.
- Integrates economic, cultural and social aspects in interaction with technology, intellectual property and tourism.
- Represents a set of knowledge-based economic activities, with developmental dimensions and multi-level linkages to the broader economy.
- Offers a viable development option requiring innovative, multidisciplinary policies and interdepartmental cooperation.
- Places creative industries at its core.

The creative economy, conditioned by a fundamental ecosystem, encompasses all economic activities deriving from creativity, arising through the actions or interactions of individuals and enterprises in a given location or community. Research on cultural and creative industries (CCI) has grown in importance within the creative economy (Jones and Warren, 2015; Potts, 2009b). Following early contributions on creative cities and the creative class (Landry, 2000; Florida, 2002), CCI became a distinct and increasingly important topic, marking a shift from “cultural industries” to “cultural and creative industries” (Cunningham, 2002).

European discussion on creative industries was strongly influenced by Tony Blair’s New Labour government in the UK during the late 1990s. This period saw the creative economy first defined as a promising sector deserving special political support (Pratt, 2005; Flew and Cunningham, 2010; Gross, 2020). Blair described it as a second revolution, defined by the convergence of new

technology and creativity - the "creative revolution" - connecting design, film, computing and innovation (Greenhalgh, 1998). A new term was introduced to public discourse to break with prior cultural strategies and outdated perceptions of culture. Critically, questions remain whether this sector is truly new or merely a rebranding of existing industries.

Today, the creative economy is recognized as a successful paradigm, contributing significantly to research on economic development and innovation (Bakhshi et al., 2008). Cultural and creative industries (CCI) are central to international research because they:

- Represent a priority sector for economic development and entrepreneurship,
- Serve as a strategic sector to overcome economic crises,
- Possess the capacity to create inter-sectoral linkages,
- Generate both direct and indirect innovations.

The creative economy plays a critical role in addressing global challenges, promoting diversification, competitive advantage, innovation, entrepreneurship and cultural diversity. Its estimated value is $1.5 trillion USD, with the potential to support sustainable development worldwide (UNCTAD, 2022).

One of the main challenges is the definition of the creative economy: should it be based on sectors (creative and cultural industries - CCI) or on the talents and skills of individuals (Comunian et al., 2022). Additionally, an interdisciplinary perspective and participatory approaches are important to include diverse voices and experiences (Hargreaves and Hartley, 2016).

2.2. Creativity in spatial and socio-economic context

This chapter examines creativity within spatial and socio-economic contexts, focusing on its conceptual foundations and its manifestation through the creative class and the creative city as key analytical frameworks.

2.2.1. The creative class in spatial and socio-economic context

Another research direction stems from Richard Florida's original concept of the creative class, with particular attention given to the idea of the creative class, growth and economic development (Stolarick and Florida, 2006; Boschma and Fritsch, 2009; Florida, 2014). The literature in this area is also extensive, with many authors focusing on various aspects of the creative class, including its definition, the conditions that make cities attractive, its connection with creative industries and its role in economic growth. Analyzing this approach allows for a deeper understanding of the interactions between highly skilled creative individuals, industries and urban spaces, while also opening the door for a critical assessment of the advantages and limitations of theoretical models. With the emergence of the knowledge economy at the end of the 20th century, Richard Florida

and John Howkins began in the late 1990s to categorize knowledge workers under the concepts of the "creative class" and the "creative economy" (Oakley, 2009). At that time, creativity became closely associated with innovation.

The concept of the creative class was first systematically presented by Richard Florida (2002) in his book *The Rise of the Creative Class*. Florida (2002) identifies the "creative class" as an emerging social group. The creative class is defined as a group of highly skilled people whose work primarily requires intellectual effort and creativity, in contrast to the traditional working class, which relies on routine physical labor. Members of the creative class use their intellect and creative abilities as a basis for economic contribution (Florida, 2002). Following Florida's logic, urban environments need the creative class to sustain development. The definition of the creative class includes broad, heterogeneous professional categories defined by state institutions, primarily based on educational qualifications and earned degrees. In Florida's usage, the creative class essentially includes those with higher education, regardless of whether they perform genuinely creative work, while all creative workers without degrees are excluded (Markusen, 2006). Characteristics of the creative class include creativity, individuality, diversity, openness, talent and tolerance.

Florida argues that creative people are the main drivers of urban and regional growth, attracted to open and tolerant places that allow for the development of new ideas - a so-called "human climate" rather than a "business climate" (Florida, 2002). Tolerant and diverse urban environments positively affect the share of the creative class in a region, stimulating new economic activities and innovative enterprises (Boschma and Fritsch, 2009; Peck, 2005). Key factors for the development and success of the creative class are known as the 3Ts: technology, talent and tolerance. Florida's work has sparked wide academic debate. His theory is based on the idea that "jobs follow people, not people jobs" (Boschma and Fritsch, 2009, p. 2). Florida highlights the attractiveness of large urban regions due to higher population density, cultural diversity, strong labor markets and extensive networks of creative enterprises (Van Heur, 2010; Scott, 2001, 2007). Smaller cities can participate in the creative economy by focusing on product differentiation and niche markets.

According to Florida (2002), creativity is multidimensional and three different "types" of creativity can be distinguished: technological creativity (innovation), economic creativity (entrepreneurship) and artistic/cultural creativity. All these dimensions are interconnected, share a common thought process and mutually reinforce each other. The creative economy results from the interaction between technology, art and business.

Since there are only some indirect indicators to measure the generation of new ideas, the creative sector is used as a proxy for measuring creativity. Creativity is understood as the process of formulating new ideas and applying them to create original artistic and cultural works, functional

creations, scientific inventions and technological innovations, as well as converting them into marketable goods and services (UNCTAD, 2008). Defined in this way, they have recently made a significant contribution to economic and urban development and now represent a new area of territorial competitiveness.

Creativity is recognized as an economic driver in terms of generating prosperity and employment, sustainable urban development, technological change, scientific and business innovations, personal and social development and strengthening the competitiveness of businesses, cities and nations, providing insight into how we live in the 21st century (Landry, 2010; Howkins, 2007). Venturelli (2000, p. 8) argues that a nation without a creative workforce cannot possess sufficient knowledge to survive in a knowledge economy. Initially, the concept of creativity referred to "creative industries" and included businesses whose products were considered creative, but the focus later expanded from creative output to the entire economy (Hartley, 2012).

Human creativity is considered a key driver of urban economies. Florida's concept of the creative class and creative cities has been discussed by both academics and urban policy makers. Agglomeration theories explain the concentration of enterprises in cities through business networks, proximity to labor markets and knowledge spillovers. Florida suggests that the main reason for the concentration of creative people is that they establish and lead innovative enterprises, becoming drivers of economic growth and urban transformation. Bohemians and artists co-create a liberal and tolerant cultural environment that attracts the creative class. The concept of the creative class continues to gain importance as a characteristic of successful, talented, entrepreneurial people capable of turning ideas into creative products or services for society.

In his book (2009), John Howkins presents further development of creativity-based thinking. He introduces the idea of a creative ecology - an approach that explores the relationship between organisms and their environment. This approach applies ecological models (particularly cycles of diversity, change, learning and adaptation) to understand how innovations emerge, develop and ultimately succeed or fail.

The concept of the creative class is further complemented by other authors. Chapain and De Propris (2009) and Challenge and Trip (2010) emphasize the role of highly skilled and creative individuals, distinguishing Florida's (2002) contribution from the research of Glaeser et al. (2001) and Clark (2004). Ray and Anderson (2000) described "cultural creatives" as a recognizable group in the U.S., while Richards (2009, 2020, 2014) and Whiting and Hannam (2014) point to the connection between the creative class and tourism, as well as the use of travel for inspiration and new ideas.

Florida's model of creative capital emphasizes that the concentration of creative enterprises and creative people in a particular region creates a competitive advantage, enhances quality of life and increases the attractiveness of the location for further economic activity (NEFA, 2007). Lewis and

Donald (2009) and Selada et al. (2011) highlight the dichotomy between "large and creative" and "small and neglected" cities, while Bell and Jayne (2009) note competitive disadvantages of smaller cities in this model.

Critiques of the creative class concept are also significant. Pratt (2008) problematizes the contextuality of the approach, Murray (2009) questions the assumption that jobs follow people, while Storper and Scott (2009) criticize the static nature of the model and the neglect of historical influence. Donegan et al. (2008) emphasize the need to monitor the dynamics of change and Peck (2005) highlights social and economic tensions arising from inequalities within the creative class.

Despite criticisms, the concept of the creative class remains central to understanding the creative economy and shaping urban and regional development policies, connecting creative individuals with industries and the concept of the creative city, allowing for a more comprehensive approach to analyzing interactions between creative resources, industries and urban spaces (Florida, 2002; Chapain and De Propris, 2009; Trip and Romein, 2010; Richards, 2009, 2020; Whiting and Hannam, 2014; Scott, 2001, 2007).

2.2.2. The creative city in spatial and socio-economic context

The third research stream focuses on the concept of the creative city, building on the foundational contributions of Landry (2000, 2012a) and Landry and Bianchini (1995) and continuing in more recent works that extend the concept beyond the city itself (Scott, 2014). The idea of the creative economy is widely applied in urban economies, defining a city in which various cultural activities are integral to its economic and social functioning.

The concept of the creative city is gaining increasing importance (Markusen, 2014). Creativity, as in organizational theory, is a source of urban competitiveness. Understanding creative cities means understanding the conditions for creativity. Throughout history, there have been periods when certain cities produced intense creative outputs (Athens in the 5th century BCE, Florence in the 15th century, Manchester in the 18th century, Vienna at the turn of the century, New York in the 1950s, Silicon Valley and Tokyo - see Hall, 1988, 1994; Greenhalgh, 1998).

An increasing number of city governments worldwide use the creative city concept to formulate urban development strategies aimed at stimulating growth focused on cultural and creative activities. In his seminal work *The Creative City* (2000), Charles Landry argues that the most important resource of a city is it's people:
"Human ingenuity, desires, motivations, imagination and creativity replace location, natural resources and market access as urban resources. The creativity of those who live and manage cities will determine future success" (p. 51).

Here, the notion of creativity is broad and can come from any citizen, profession, or sector. According to Landry, this includes creative bureaucracy, individuals, organizations, schools, universities and more. Fostering creativity in this broader sense is central to the creative city agenda.

Creative cities leverage their creative potential in unique ways, building on existing strengths. Some act as hubs for creating cultural experiences for local residents and visitors through the presentation of cultural heritage, while others use festivals to shape the identity of the entire city. Certain cities are better suited for media industries as sources of employment and engines of urban and regional growth, while in other cases, culture is seen as a tool to enhance urban life quality, social cohesion and cultural identity.

Cities are increasingly seen as primary drivers of regional and global economic development, regardless of their population density or geographic context. Their role in economic development has significantly changed - they are no longer just centers of population, business and employment (Haberstroh and Pinkwart, 2018). The European Union, aiming to ensure competitiveness, territorial and social cohesion for European cities, has defined strategies that member states should implement at the micro-level – cities - so that inclusive, intelligent and sustainable growth becomes a reality (Rodrigues and Franco, 2019a). In this context, cultural and creative industries are recognized as important drivers of urban transformation and sustainable development, with significant spillover effects on the broader economy and regional growth (Nižić et al.,2019).

In this context, the academic community has shown interest in cities and the pathways they choose to grow across all dimensions. Today's cities are multidimensional and pluralistic spaces that reconcile historical pasts with the future, culture with economic factors, talent, technology and business with sustainability and creativity (Ratten, 2017), with wealth creation supported by three pillars: creativity, intelligence and urban sustainability - to enable long-term growth and lasting impact (Rodrigues and Franco, 2018).

Regional clusters and embedded networks have become part of the emerging political discourse on cultural industries and local economic development, suggesting close links between the clustering of cultural industries and urbanity itself. These links were integral to the "rediscovery" of the city in the 1980s and 1990s. The "network society" (Castells, 1996) relied on the growth of key nodal points that controlled and directed global flows.
Cities have become new economic powers, built on the ability to process knowledge and manipulate symbols. Subsequently, the literature on global or world cities developed, highlighting well-known examples - New York, London, Paris, Los Angeles, Hong Kong - while also leaving room for second- and third-tier cities that joined the new global flow infrastructure (Sassen, 1991). The specific role of the urban environment in cultural industry activities has increasingly attracted the attention of researchers, consultants and policy makers since the late 1990s. At that time,

economic geography (undergoing its own "cultural turn") began linking with research on networks and clusters, innovative environments and location-based competitive advantages, focusing on cultural industries. This required addressing connections between the cultural qualities of a place and its economic performance. Alfred Marshall's (1890) concept of the "atmosphere" of a place, which gives it a competitive advantage, often interpreted as locally embedded tacit knowledge, was transferred to cultural industries with a greater emphasis on cultural dimensions. Castells (2014), writing about innovative environments, highlighted the rich institutional depth of cities - universities, research and development institutions, enterprises, government agencies, availability of skills and knowledge, but their focus on "technopoles" and science parks did not directly fit the milieus of cultural industries.

Cultural industries have long been the subject of urban research (Scott, 2014). Key works in urban studies - Zukin's (1989) research on artists in urban spaces, Bianchini and Parkinson (1993) on using culture for urban regeneration, Hall (1998) on creativity and cities and Scott (1999) on the formalized "cultural economy" complementing and replacing industrialized capitalism - emphasize the role of cultural and creative production for cities and metropolitan regions.

Scott (2004) also strongly connects cultural goods production with the city. Cities possess institutions, embedded knowledge and practices that are critical for creative urban environments; as he states, cities are "collectivities of human activity and interest constantly creating flows of public goods that support the functioning of the creative field" (Scott, 2001, p. 3). Here, the cultural industries agenda is explicitly tied to culture-led urban regeneration. This resonates with Richard Florida's (2002) idea of the "creative class," where the "agglomeration" of creative professions is attracted primarily by quality of life, tolerance, or the city's creative atmosphere. Unlike Florida, Scott focuses on cultural production rather than consumption.

Currently, the concept of the creative city shows a declining trend, likely due to emerging paradigms in Europe such as the "smart city" and its connection to smart specialization policies developed by European communities (McCann and Ortega-Argilés, 2018). The role of the creative city becomes secondary and is increasingly described as a subcategory of the smart city.

The creative economy is most often viewed in an urban context, with vibrant creative cities, cultural districts and cultural centers considered desirable locations attracting businesses, consumers and residents (Florida, 2002, 2014). The creative city idea is linked to social movements in cities after the 1960s, when new cultural practices, alternative cultures and numerous art cooperatives emerged, later integrated into the neoliberal urban framework. During the 1970s and 1980s, the creative city became part of the push for explicit recognition of the cultural dimension and cultural citizenship. In the early 1990s, following deindustrialization, the creative city became an integral part of the new urban imagination for policy makers, advocates and practitioners in arts and culture, driven by rising unemployment and capital mobility (Whiting et al., 2022).

In the late 1980s and early 1990s, derelict urban districts were repurposed for artistic and cultural purposes, investment was made in iconic cultural buildings and a new urban identity was created based on a neo-bohemian lifestyle and pop-cultural aspirations. As development progressed, cities positioned themselves as destinations for global tourism and finance (Peck, 2002). New forms of creative production contribute to urban advancement by increasing employment and stimulating the overall urban economy. The creative city idea should represent a "benign" economy of small enterprises symbiotically linked to revitalized urban landscapes (Pratt, 2013; Scott, 2014).

Charles Landry (2000) advocates a research approach focused on creative cities, considering creativity the key to solving urban problems and emphasizing that people are the city's most important resource. Landry highlights the need for a comprehensive approach to creativity through the development of creative production and new governance systems, so that creativity can flourish throughout society. Supporting creativity through a broader perspective, including creative individuals, bureaucracies, organizations, universities and schools, is crucial for a creative city strategy (Lange et al., 2008; Landry, 2012b; Sepe, 2010).

Research on creative cities emphasizes the role of cultural and creative production in urban areas (Scott, 2014). Key studies include research on artists in urban environments (Zukin, 1989), the use of culture for urban regeneration (Bianchi and Parkinson, 1993), studies on creativity and cities (Hall, 1998) and analyses of the cultural economy as a complement and alternative to industrialized capitalism (Scott, 1999). Cities' role in economic development has significantly changed and they are increasingly recognized as key drivers of regional and global development (Haberstroh and Pinkwart, 2018). Investments in culture make creative cities fertile ground for attracting the creative class and generating new creative products and processes that contribute to economic growth and prosperity (Florida, 2002; Florida et al., 2008).

Today's cities are multidimensional and pluralistic spaces balancing historical pasts and futures, culture and economic factors, talent, technology and business with sustainability and creativity (Ratten, 2017). Wealth creation in these cities relies on three key pillars: creativity, intellect and urban sustainability - which enable long-term growth and sustainable performance (Rodrigues and Franco, 2018; Rodrigues and Franco, 2019a).

With the introduction of new paradigms such as the smart city concept, the role of the creative city has diminished and is treated as a subcategory of the smart city (McCann and Ortega-Argilés, 2018). Today, cities face challenges such as gentrification and segregation, while a new era of creative industries emerges. The concepts of the creative class and creative economy in regional development and urban policies have been reinterpreted over decades, with socio-economic, ethnographic and historical-political contexts redefining the original perspective on contemporary city and regional development (Florida, 2017; Faludi, 2019).

Particular interest has arisen in the rural creative economy (Fleming, 2009; Bell and Jayne, 2010; Herslund, 2012; Roberts and Townsend, 2016). Rural areas are considered to possess numerous advantages that attract creative workers and are therefore well-positioned to leverage the creative economy (Stolarick, 2012). Principles of creative cities have been transferred to rural areas and marginalized communities, where quality of life and the search for creative inspiration beyond high-rent, homogeneous urban areas are highlighted as key factors (Duxbury and Campbell, 2011; Collis et al., 2013). "Special artistic ecologies" of rural areas (Bell and Jayne, 2010; Roberts and Townsend, 2016) and strengths such as strong regional cultural networks and economies (Chapain and Comunian, 2010) further emphasize the potential of the rural creative economy.

Through all these perspectives, urban systems and city dynamics, as well as their role in the global economy, are dramatically changing, confirming the importance of creative cities as central actors in the development of the creative economy.

2.3. Measuring creativity - theoretical approaches and conceptual challenges

The importance of the creative economy in economic development has sparked interest in measuring its scope through the assessment of composite creativity indicators. Recognizing the impact of cultural and creative industries on economic growth, there is a need to identify and evaluate this influence.

Given the growing significance of the creative economy concept, there is increasing interest in academia and professional debates in defining and evaluating creativity indices. The emergence of the first creativity index at the beginning of the 21st century, when Richard Florida (2002) introduced his measurement instrument, opened a new research field. Since then, a rich body of literature has developed, analyzing creative processes and their quantitative evaluation through economic indicators, with numerous concepts, methodological approaches and indicator systems designed to approach the issue from different perspectives. Composite indices, in this context, represent a valuable analytical tool, as they allow for the assessment of the economic impact of creative industries and the measurement of the effectiveness of policies aimed at their development. However, their reliability largely depends on the quality of the methodological design and the availability of data.

Although a universal definition of creative industries is unattainable, existing international frameworks and classifications can serve as guidelines for a more coherent conceptualization. Quantifying creative services in developing countries presents a particular challenge, as these countries often face limitations in statistical systems, institutional capacity, financial resources and skilled personnel. Even when data exist, processing and disseminating remain demanding tasks.

Therefore, higher-quality and more detailed data are needed to provide insights into the role of creative services in economic transformation and service sector diversification. In this context, UNCTAD (2022) recommends improving existing definitions and classifications from international and regional organizations and adapting them to national and regional contexts. As a part of research on the creative economy and its impact on socio-economic development, various approaches have been developed for measuring and evaluating creativity.

2.3.1. Comparative overview of creativity indices

This section presents a comparative overview of key composite indices used to measure creativity and related dimensions, providing a foundation for the development of the new European Creativity Index.

Florida (2002), through the Creative Cities Index, builds on the concept of the creative class and defines creative cities as spaces where talent, technology and tolerance form the foundation for attracting and retaining creative individuals. Methodologically, this index consists of measures such as the share of the creative class in employment, the number of patents, the concentration of high-tech companies and indicators of social openness. Results show that cities with a higher concentration of creative workers and a tolerant social climate experience more dynamic economic growth and greater innovation. However, this approach faces certain criticisms—primarily due to the broad and heterogeneous definition of the creative class, the limited applicability of some indicators outside the U.S. context and a tendency toward static measurement, which does not capture value-creation processes (Florida, 2002).

In contrast to Florida's index, the Silicon Valley Index, developed in the early 2000s, focuses primarily on the economic effects of the innovation ecosystem. Its goal is to monitor the competitiveness and resilience of Silicon Valley, a region considered a global hub of technological innovation. This index includes a range of quantitative indicators, notably investments in research and development, the number of start-ups and patents, venture capital attractiveness, employment and productivity levels, as well as migration and educational patterns. Empirical findings confirm the key role of networks of entrepreneurs, universities and investors in generating growth, portraying Silicon Valley as an example of the agglomeration effect and the dynamic interaction between human capital and technological resources. Nevertheless, this index is often criticized for its strong focus on high technology and its neglect of the broader spectrum of cultural and creative industries and socio-cultural dimensions that are also important for innovation (SV-CCI, 2002).

Another approach is represented by the Cultural Life Index, which emphasizes cultural infrastructure and participation as sources of creative capital. Instead of purely economic indicators, this index includes measures of the number and availability of cultural institutions (museums, libraries and theaters), the intensity of cultural events (festivals, concerts and public

celebrations), citizen participation in cultural life and investments in the cultural sector. Results show that cities with a developed cultural sector achieve higher quality of life, greater attractiveness for visitors and stronger social cohesion, highlighting culture as a factor of both direct and indirect economic development. The main limitations of this approach relate to the lack of standardized indicators, differences in data availability across countries and the presence of a subjective dimension in measuring cultural participation (Picard et al., 2003).

The Euro-Creativity Index (F-ECI, 2004) was developed to adapt the conceptual foundations of Florida's Creative Class Theory to the European context. This index is based on the 3T framework (talent, technology, tolerance) and includes nine indicators for measuring creative capital in 14 European countries, along with additional short-term trend measures - the Euro-Creative Trend Index and the Euro-Creativity Matrix. This index aims to test the hypothesis that a high level of creative capital, technological development and social tolerance contributes to economic growth. Results indicate that Scandinavian countries, particularly Sweden and Finland, are the most competitive, while traditional European powers such as France, Germany and the UK perform less strongly, indicating a shift in global creative competition. Methodologically, this index also includes subjective indicators of tolerance and combines quantitative and qualitative data, though it is criticized for a broad definition of creativity and potentially weaker correlations among individual indicators (Florida and Tinagli, 2004).

The Hong Kong Creativity Index, developed by the Centre for Cultural Policy Research at the University of Hong Kong, is based on the 5C model: creativity outcomes, structural/institutional capital, human capital, social capital and cultural capital. This index includes 88 indicators and is designed to cover not only the economic outcomes of creativity but also the flows of creative activities and the determinants of growth in creative potential. Heavily inspired by Florida's creative class theory, it expands the scope to include cultural infrastructure, social connectivity and public policies. Methodologically, it incorporates research based on the World Values Survey and local surveys of Hong Kong residents, enabling a comprehensive assessment of creativity and regional potential compared to international standards. Its strength lies in the large number of indicators, which allow for a fuller picture, while its weakness is the complexity of data collection and analysis (Hui et al., 2005).

Sharpie's Creativity Index (2007) focuses on cultural creativity, creative consumption and the local creative environment, encompassing dimensions such as employment in creative industries, self-employment, awards, funding of creative projects, sustainability, diversity (sexual, racial and cultural), subcultures, cost of living, creative consumption and education and technology. Its advantage lies in the detailed focus on the cultural aspects of creativity and local subcultures, as well as the combination of quantitative and qualitative indicators, which provides a comprehensive view of local creative potential. However, this index is limited to the cultural dimension and does

not include innovative or scientific aspects, which may reduce its applicability in the broader context of the creative economy (Future Laboratory, 2007).

A year later, the Creative City Index (J-CCI, 2008), developed by the Fukuoka Benchmarking Consortium, deals with the evolution of creative cities through the differentiation of "fundamental" and "flow" factors. This index includes 78 indicators divided into two categories, allowing the analysis of changes in the creative ecosystem of cities. Its advantage lies in its ability to distinguish fundamental from flow factors, enabling dynamic evaluation of creative potential. A limitation, however, is the lack of transparency in methodology and metrics, making the reproduction and comparison of results between different cities difficult (Fukuoka Benchmarking Consortium, 2008).

The Composite Index of the Creative Economy (CICE, 2008) is aimed at assessing the creative capacity of regions through the dimensions of innovation, entrepreneurship and openness. This index includes nine indicators in three dimensions and uses endogenous weighting, allowing each region to receive its own weights to maximize the overall score. This methodologically innovative approach allows the index to be adapted to the specific characteristics of regions and highlights the strengths of individual regions. However, the smaller number of dimensions and indicators limits the comprehensiveness of assessing creative capacity (Bowen et al., 2008).

The Baltimore Creativity Index (BCI, 2009) applies Florida's model to a specific U.S. metropolitan area, focusing on creativity and entrepreneurship within the Baltimore metropolitan statistical area MSA. This index adds a spatial dimension ("territory") to the classic 3T dimensions (talent, tolerance, technology), enabling the understanding of regional variations in creative potential. By linking creativity with local resources and social diversity, BCI emphasizes the importance of spatial accessibility and the impact of local amenities on attracting creative talent. A limitation of this index is its applicability solely to Baltimore, reducing the possibility of generalization to other regions (Acs and Megyesi, 2009).

The European Creativity Index (ECI, 2009), developed for the European Commission by KEA European Affairs, focuses on cultural creativity in European regions and countries. The index includes six dimensions - human capital, openness and diversity, cultural environment, technology, institutional environment and creative achievements - with a total of 32 indicators, covering cultural, artistic and educational aspects; cultural participation; and the economic contribution of cultural industries. The advantage of the ECI lies in its strong and diverse methodological construction, which allows for a multidimensional assessment of creative potential. However, this index is limited by data availability only at the national level and has not been empirically tested, which may limit the validity and reliability of the results (KEA, 2009).

The Design, Creativity and Innovation Scoreboard (2009) was developed to link innovation, design and creativity, distinguishing the dimensions of creative environment from creativity and design itself, the latter being connected to innovation. The seven dimensions of this index allow for the assessment of education and openness through three "creative climate" dimensions and creative activities and design through four dimensions, including the share of creative occupations and designers. This index contributes to understanding the link between the education system, professional competencies and creative potential, emphasizing that innovation depends not only on infrastructure and technology but also on the quality of human capital (Hollanders et al., 2009).

The Czech Creative Index (CZCI, 2010) builds on Florida's concept by including territory as a key component, analyzing spatial similarities in creative performance across regions. The authors tested the formation of clusters among Czech regions, concluding that creativity tends to concentrate, with Prague remaining dominant. Spatial autocorrelation shows that regions influence each other and neighboring regions exhibit more similar creative performance. Although the hypothesis of forming creative hubs was not confirmed, the spatial analysis highlights the importance of proximity and interaction in spreading creative potential (Kloudová and Stehlíková, 2010).

The Creative Grid (2010) focuses on infrastructural conditions for the growth and competitiveness of creative industries in the UK, highlighting ten key factors, from high-profile cultural infrastructure to connections with other sectors. This index serves as a guideline for public policies in the creative sector, emphasizing how space, infrastructure and support networks directly influence the ability to develop a creative economy (Fleming Creative Consultancy, 2010).

The European Creativity Index (2011) represents the first systematic use of the Florida-Tinagli methodological framework across 27 EU member states. The analysis confirms the shift of the epicenter of creative competitiveness to Northern Europe, including countries such as Finland, Sweden and the Netherlands. This index allows for regional comparison of creative potential, highlighting the role of human capital, openness and institutional conditions in creating competitive creative clusters (Bobircă and Drăghici, 2011).

The Global Creative Index (GCI, 2011), developed by the Martin Prosperity Institute, covers 82 countries and integrates the dimensions of talent, technology and tolerance. The technological aspect includes R&D and the number of researchers and patents per capita, while the talent dimension measures education and problem-solving capacity in the workplace. Tolerance is assessed via surveys on attitudes toward ethnic, racial and sexual minorities. This index allows for global comparison of creative potential, while also raising discussion on the social factors that support creativity (Florida et al., 2011).

The Creative City Index (CCI-CCI, 2012) is applied to global cities and includes eight dimensions covering the scope and level of creative industries, micro-productivity, attractions and attention economy, participation and consumption, public support, human capital and global integration, openness, tolerance and diversity. This index uses equal weighting for all indicators and standardizes results against the maximum value, allowing city comparisons in a global context (Hartley et al., 2012).

The Global Creative City Index (2012) provides a comprehensive framework for analyzing the global creative and innovation potential of cities, emphasizing the impact of the multinational economy, international division of labor and concentration of production and financial services. This index enables understanding of global trends in the creative economy by linking local capacities with the international context (Dilek and Günsell, 2012).

Landry's Index (2010) and The Creative City Index: Measuring the pulse of the city (2012) focus on the creative potential of cities across ten domains, including political framework, talent and urban development. This index combines quantitative techniques such as online surveys and focus groups, allowing comprehensive assessment of the creative environment; however, the consultancy-based methodology remains partially opaque, limiting comparability with other indices (Landry and Hyams, 2012).

The New Creative Index represents a transformation of Florida's 3T model for the purpose of comparing creative centers within the European Union. This index is presented from a geographic perspective to assess the distribution of creative potential. Three dimensions are considered key: human capital, creative class and education; openness, diversity and tolerance; and technology and innovation. Research confirms that creativity significantly contributes to competitiveness but emphasizes that creativity alone is not sufficient to stimulate economic growth (Kloudová and Chwaszcz, 2012).

The Creative Economy Report (UNDP, 2013) further expands the understanding of creativity and culture as drivers of development. This report aimed to explore the nuances of the creative economy to support its advancement as a sustainable option for local development. Its proposed set of indicators serves as a tool for assessing and analyzing the local creative economy, although it has not been empirically tested.

The Creative Space Index (CSI, 2014) was developed as a cross-sectional index for 26 European countries, comparing results with the Global Creative Index (Florida et al., 2011). The CSI provides key information on city creative performance, focusing the analysis on the relationship between creativity and spatial planning. This index evaluates spatial aspects through analysis of regional structure and selection of indicators based on gravity models, emphasizing that a place can be creative only if it is both attractive and interactive. Attractiveness implies an open and

tolerant community, diverse cultural offerings and a unique identity, while interactivity reduces the effect of distance through investment in physical or virtual accessibility (Correia and Costa, 2014).

The Global Creativity Index (GCI, 2015) builds on previous models by incorporating competitiveness, entrepreneurship, human development and urbanization into the 3T framework. It covers 139 countries over the period 2010–2014, comparing results with six measures of social and economic progress, including GDP per capita, income inequality, the Global Competitiveness Index, the Global Entrepreneurship Index, the Human Development Index and Happiness/Life Satisfaction Index. This index enables a global assessment of creative potential and its socio - economic correlates (Florida et al., 2015).

The Slovak Creativity Index (SCI, 2016) applies the philosophy of the European Creativity Index (KEA, 2009) at the regional level in Slovakia, emphasizing cultural aspects of the creative economy. This index serves to identify and monitor regional potentials and challenges in the creative sector (Hudec and Klasová, 2016).

The Creative Economy Index (CEI,2017) was developed as an alternative method for measuring the development of the creative economy, combining variables characterizing innovation and institutional framework in 34 countries during 2005–2014. Empirical meta-analysis of 71 variables allowed identification of four main components: innovative economy, political institutions, business regulations and fiscal institutions. These components form the basis for constructing the CEI, providing a comprehensive approach to measuring the creative economy (Żelazny and Pietrucha, 2017).

The Czech Creativity Index (CZCI, 2018) analyzes conditions for the development of the creative economy in Czech regions. Through the calculation of sub-indicators in the areas of talent, technology and tolerance, this index maps the development of creative potential over the period 2011–2015. At the end of the research, a creativity matrix was constructed, dividing regions into four quadrants: leaders, growing regions, lagging regions and declining regions, with Prague occupying a dominant position (Chaloupková et al., 2018).

The Potentiality of Creative Industries Index is organized into three dimensions: cultural policy, creative industries and creative foundation. The application of the Delphi method for indicator validation represents a methodological distinction, while the index itself allows assessment of the potential for economic development of cultural and creative sectors in a given territory (Castro-Higueiras and de Aguilera- Moyano, 2018).

The European 3T Creativity Index (3TCI, 2018) analyzes the creative capacity of 28 European countries during 2005–2014, confirming the spatial concentration of creative capacities. Based on

Florida's 3T concept, it uses panel data, adding a temporal dimension to cross-country comparisons of creativity (Alexy et al., 2018).

The Cultural and Creative Cities Monitor (CCCM,2019) represents an innovative dataset covering 29 indicators for 168 cities in 30 European countries. This index measures the presence and attractiveness of cultural facilities (Cultural Vibrancy), the capacity of culture to generate jobs and innovation (Creative Economy) and the conditions enabling cultural and creative processes (Enabling Environment). Results show a diverse distribution of cultural and creative resources and allow local authorities to design development strategies adapted to their context (Montalto et al., 2019).

The Index of Creativity, Intelligence and Urban Sustainability includes scientifically weighted dimensions of creativity, intelligence and urban sustainability, applied to 308 Portuguese cities. Based on the analysis, a composite weight for each dimension was obtained, allowing a holistic assessment of overall city performance (Rodrigues and Franco, 2019a).

The Composite Index for Creativity is structured around three dimensions: culture, creative economy and enabling environment, emphasizing the cultural industry as a subset of creative industries. This index allows assessment of conditions for developing creative potential in urban areas, highlighting the role of cultural resources and institutional support (Rodrigues and Franco, 2019b).

The Development Potential Index of Creative Economy (DPICE, 2019) assesses the development potential of the creative economy in 26 Brazilian federal states and the Federal District. This index consists of three dimensions: talent, attractiveness and connectivity and cultural environment and creative entrepreneurship. The use of endogenous weights allows differentiation and a more precise evaluation of regional potential (de Figueiredo et al., 2019).

The Creative Economy in Balkan Countries investigates the potential and performance of creative capacities in the Western Balkan countries. This index is based on 53 indicators assessing talent, technology and tolerance/social capital, following Florida's 3T model and allows comparative analysis of regional creative potential (Ndou et al., 2019).

The European Indicator of Regional Creativity (EIRC, 2020) measures creativity with regional disaggregation in 20 European countries, comparing different aggregation methods under the "benefit of the doubt" hypothesis. This index identifies spatial patterns of creativity and allows assessment of spatial autocorrelation effects, examining the presence of agglomeration economies and creative clusters (Boal-San Miguel and Herrero-Prieto, 2020).

The Cultural and Creative Industries Index (CCII, 2020) is designed to analyze cultural and economic aspects of creative activities, focusing on the output factors of creative industries. This index differs from others as it excludes technology, general infrastructure, openness and tolerance and its unique focus on creative output highlights the specific performance of the sector (Kregždaitė et al., 2020).

The Creacity Index encompasses spatial, environmental and institutional dimensions, measuring spatial creativity in urban and cultural tourism destinations. It particularly emphasizes the role of tourists in the creative process and links the attractiveness of destinations to their creative performance (Pulido-Fernández et al., 2020).

Table 5 presents a systematic overview of existing creativity indices based on an extensive literature review. The indices are classified into six conceptual categories:

1. 3T based creativity indices,
2. creative industries based indices,
3. broader perspectives on creativity,
4. culture based indices,
5. creative economy focused indices, and
6. territory based creativity indices.

Although the indices are organised into six analytical categories, the classification is not strictly mutually exclusive. Several indices, particularly those grounded in the 3T framework, appear across different categories due to their adaptation to varying spatial scales and analytical extensions. Accordingly, the typology should be understood as a conceptual mapping rather than a rigid taxonomic structure.

Table 5. Systematic overview and conceptual classification of creativity indices based on literature review

Author/Index	***Description***
3T based creativity indices	
Florida (2002) *Florida's Creative Index (FCI)*	City or regional level / 40 metropolitan regions in the U.S. Key concept: 1. Talent; 2. Technology; 3. Tolerance A broad definition of creativity that extends beyond creative industries. A large number of the science-based innovations indicators (patents, R&D expenditures, and number of scientists).
Florida and Tinagli (2004)	Country level / 14 European countries

Author/Index	***Description***
Euro-Creativity Index (F-ECI)	Key concept: 1. Euro talent; 2. Euro technology; 3. Euro tolerance Builds on the 3T theory of economic growth, with the main changes made to the "tolerance" sub-index.
Fukuoka Benchmarking Consortium (2008) *Creative City Index (J-CCI)*	City level / six major Japanese cities Key concept: 1. Fundamental factors; 2. Flow factors Represents the distinction between basic factors and flow factors, which aims to analyze the evolution of cities over time, but the research does not include information on methodology and metrics.
Kloudová and Chwaszcz (2012) *New Creative Index*	City level or creative regions / 89 cities in Germany, Spain, the Netherlands, Finland, Sweden, Estonia, and Luxembourg / 2006–2007 Key concept: 1. Talent index; 2. Technology index; 3. Tolerance index This index is presented from a geographical point of view in order to assess the distribution of creative potential from this point of view. The content of 3T differs from the Florida model.
Florida and Martin Prosperity Institute (2011/2015) *Global Creativity Index (GCI)*	Country level / 139 countries / 2000–2009 (2011 report); 2010–2014 (2015 report) Key concept: 1. Global talent; 2. Global technology; 3. Global tolerance The Global Creativity Index is an integral part of the 3T model.
Chaloupková et al. (2018) *Czech Creativity Index*	Regional level / Czech Republic / 2011–2015 Key concept: 1. Talent index; 2. Technology index; 3. Tolerance index The creativity index was inspired by Florida's 3T model (2002) and Kloudová's (2009) spatial approach.
Alexy et al. (2018) *European 3T Creativity Index (3TCI)*	Country level / 28 European countries / 2005–2014 Key concept: 1. Talent index; 2. Technology index; 3. Tolerance index

Author/Index	***Description***
Ndou et al. (2019) *Creative Economy in Balkan Countries*	Country level / Balkan countries (Albania, Montenegro, Macedonia, Serbia, Bosnia, and Croatia) Key concept: 1. Talent; 2. Technology; 3. Tolerance The research focuses on the dynamic perspectives of countries' creative economy by distinguishing between potentialities and performance elements (based on a 3T model).
Creative industries based indices	
Castro-Higueras and de Aguilera-Moyano (2018) *Potentiality of Creative Industries Index*	City level / Andalusia: Seville, Malaga, and Cordoba Key concept: 1. Creative base; 2. Public policies; 3. Creative industries The research highlights the importance of public policy in the sector as a catalyst for the creative base and the creative industry sector.
Kregždaitė et al. (2020) *Cultural and Creative Industries Index (CCII)*	country level/ EU countries/2000 - 2014 Key concept: 1. Quantitative expression of creative works; 2. Economic creativity output The focus is on the output factors of cultural and creative industries. CCII excludes technology, general infrastructure, openness and tolerance factors, etc., as observed in other indices, and this is the reason for the differences in the final results of the index.
A broader perspective of creativity	
Hui et al. (2005) *Hong Kong Creativity Index (HKCI)*	City level / Hong Kong / 1994–2004 Key concept: 1. Creativity outcomes; 2. Structural/institutional capital; 3. Human capital; 4. Social capital; 5. Cultural capital Demonstrate the dynamic relationship between creativity, local economy, and society. The indicator mixes a number of indicators of technological development and scientific progress.
Kloudová and Stehlíková (2010)	Czech regions / 2007 Key concept: 1. Talent; 2. Technology; 3. Tolerance

Author/Index	***Description***
Czech Creative Index (CZCI)	Is a modification of the creativity index compiled by Florida (2002; 2004) and represents an analysis of spatial issues.
Hollanders and Van Cruysen (2009) *Design, Creativity, and Innovation Scoreboard*	Country level / 27 EU Member States Key concept: 1. Creative climate; 2. Creativity and design Connects innovation, design, and creativity.
Fleming (2010) *Creativity Grid*	City level or theoretical approach / UK Key concept: 1. Creative class; 2. Culture; 3. Talent; 4. Government; 5. Creative and cultural industries Introduces the importance of the place as a major driver of creativity in the UK.
Landry and Hyams (2012) *Landry's Creative City Index (L-CCI)*	City level / Europe and global, and developed countries Key concept: 1. Political and public framework; 2. Distinctiveness, diversity, vitality, and expression; 3. Openness, tolerance, and accessibility; 4. Entrepreneurship, exploration, and innovation; 5. Strategic agility, leadership, and vision; 6. Talent development and the learning landscape; 7. Communication, connectivity, and networking; 8. The place and placemaking; 9. Livability and well-being; 10. Professionalism and effectiveness The distinctive feature of this index is its ten dimensions, which are well explained and effectively cover creativity.
Hartley et al. (2012) *Creative City Index (CCI-CCI / ARC Index)*	City level / six cities (Brisbane and Melbourne in Australia, Berlin and Bremen in Germany, and London and Cardiff in the UK) Key concept: 1. Creative industries scale and scope; 2. Micro productivity; 3. Attraction and economy of attention; 4. Participation and expenditure; 5. Public support; 6. Human capital and research; 7. Global integration; 8. Openness, tolerance, and diversity The main advantage of this index is the inclusion of new dimensions such as the attention economy and micro-productivity. Hartley was the first to evaluate digital activity as a complement to creative activity.

Author/Index	***Description***
Çetindamar and Günsel (2012) *The Global Creative City Index*	City level / nine cities: Hong Kong, Istanbul, London, Los Angeles, Moscow, New York, Shanghai, Singapore, and Toronto Key concept: 1. Creativeness; 2. Innovativeness; 3. World cityness; 4. Intellectual development; 5. Global network connectivity Examine the global creative and innovative potential of cities with an emphasis on the multinational economy, international division of labor, and high intensity of production and financial services.
Hudec and Klasová (2016) *Slovak Creativity Index (SCI)*	Slovak regions Key concept: 1. Openness and diversity; 2. Human capital; 3. Creative outcomes; 4. Institutional environment; 5. Technology; 6. Cultural environment Research focuses on Slovak regions by adopting the ECI (KEA, 2009) philosophy and concept, focusing on cultural aspects of creative economics.
Rodrigues and Franco (2019a) *Creativity Index for Portuguese Cities*	City level / Portuguese cities Key concept: 1. Culture; 2. Creative economy; 3. Favorable environment The research focuses on the creative performance of Portuguese cities and the individual weight of each of them in that performance. It forms around the perspective that the cultural industry is a subset of creative industries.
Rodrigues and Franco (2019b) *Index of Creativity, Intelligence and Urban Sustainability*	City level / 308 towns and cities in Portugal Key concept: 1. Creativity; 2. Intelligence; 3. Urban sustainability The research represents a scientific and powerful weighting of the dimensions of creativity, intelligence, and urban sustainability in a holistic, integrated, and global performance of cities.
Boal-San Miguel and Herrero-Prieto (2020)	Regional level / 20 EU countries Key concept: 1. Talent; 2. Openness and tolerance; 3. Culture; 4. Technology and innovation; 5. Cultural and creative industries; 6. Livability

Author/Index	***Description***
European Indicator of Regional Creativity (EIRC)	
Pulido-Fernández et al. (2021) *Creacity*	City level / 20 urban and cultural tourist cities in Spain Key concept: 1. Spatial; 2. Environmental; 3. Institutional This index was signed by a panel of experts using the Delphi method. Incorporating concepts such as creation and place creation into the indicator system is again an issue that requires the creation of more indicators based on tourism activities, in order to allow optimal adaptation to the measurement of creativity in tourism destinations. Indicators should also include aspects focused on the specifics of these destinations.
Culture based indices	
Knight Foundation (2002) *Creative Community Index (SV-CCI)*	Regional level / Silicon Valley / 2002–2005 Key concept: 1. Levers; 2. Assets; 3. Participation; 4. Outcomes Emphasizes the importance of culture for creativity, technological progress, and social cohesion.
Picard et al. (2003) *Cultural Life Index*	Country level / theoretical approach Key concept: 1. Cultural resources availability; 2. Cultural participation ; 3. Cultural production It is a detailed source of potential culture-based indicators.
Future Laboratory (2007) *Sharpie's Creativity Index*	City level / UK's 20 most creative towns and cities Key concept: 1. Creative output; 2. Creative funding; 3. Sustainability; 4. Diversity; 5. Subcultures; 6. Cost of living; 7. Creative consumption; 8. Education and technology The study focuses on cultural creativity rather than scientific or innovative creativity.
KEA European Affairs consultancy (2009) *European Creativity Index (ECI)*	Country level / Europe Key concept: 1. Human capital; 2. Openness and diversity; 3. Cultural environment; 4. Technology; 5. Institutional environment; 6. Outcomes of creativity

Author/Index	***Description***
	Proposal of indicators focused on the cultural dimension of creativity.
Montalto et al. (2019) *Cultural and Creative Cities Monitor (C3 Index)*	City level / 168 cities in European countries Key concept: 1. Cultural vibrancy; 2. Creative economy; 3. Enabling environment Culture-specific dataset covering 168 European cities.
Creative economy based indices	
UNDP (2013) *Creative Economy Report Indicators*	Theoretical approach Key concept: 1. Resources; 2. Capacities; 3. Outcomes (economic, social, cultural, and environmental) The intention was to understand the nuances of the creative economy in order to support its progress as a viable option for development at the local level.
Żelazny and Pietrucha (2017) *Creative Economy Index (CEI)*	Country level / 34 economies of the European Union / 2005–2014 Key concept: 1. Institution; 2. Innovation Based on this relationship, the so-called creative economy stands out, in which innovation and institutions are a common element of pro-efficient and pro-growth solutions, and freedom of creation plays a key role.
de Figueiredo et al. (2019) *Development Potential Index of Creative Economy (DPICE)*	Regional / city level / 26 capitals of Brazilian states and the Federal District Key concept: 1. Talent; 2. Attractiveness and connectivity; 3. Cultural environment and creative entrepreneurship The research deals with measuring the potential dynamics of the creative economy. Two techniques are used: one assigning equal weight to three dimensions and the other establishing different weights, using endogenous weights.
Territory based creativity indices	
Acs and Megyesi (2009)	Regional level / Baltimore MSA Key concept: 1. Talent; 2. Technology; 3. Tolerance; Territory

Author/Index	***Description***
The Baltimore Creativity Index (BCI)	The focus is primarily on creativity/entrepreneurship.
Bobircă and Drăghici (2011) *European Creativity Index*	Country level / 27 EU member states Key concept: 1. Talent; 2. Technology; 3. Tolerance; 4. Territory A broader set of indicators and sub-indicators than those used in studies on which it is based (Florida and Tinagli, 2004). It is written from a European perspective.
Correia and Costa (2014) *Creative Space Index (CSI)*	National, regional, or city level / EU member states Key concept: 1. Talent; 2. Openness; 3. Cultural environment and tourism; 4. Technology and innovation; 5. Industry; 6. Regulation and incentives; 7. Entrepreneurship; 8. Accessibility; 9. Livability It is designed to analyze different realities and allows comparisons around the world. It is adaptable to work with different domains—national, regional, and urban—and with different data sources.
KEA European Affairs consultancy (2009) *European Creativity Index (ECI)*	Country level - Europe Key concept: 1. Human capital; 2. Openness and diversity; 3. Cultural environment; 4. Technology; 5. Institutional environment; 6. Outcomes of creativity Proposal of indicators focused on the cultural dimension of creativity.
Montalto et al. (2019) *Cultural and Creative Cities Monitor (C3 Index)*	City level/ 168 cities in European countries Key concept: 1. Cultural vibrancy ; 2. Creative economy ; 3. Enabling environment Culture-specific dataset covering 168 European cities.

Florida (2002); Knight Foundation (2002); Picard et al. (2003); Florida and Tinagli (2004); Hui et al. (2005); Future Laboratory (2007); Bowen et al. (2008); Fukuoka Benchmarking Consortium (2008); Acs and Megyesi (2009); KEA European Affairs (2009); Hollanders and Van Cruysen (2009); Kloudová and Stehlíková (2010); Fleming Creative Consultancy (2010); Bobircă and Drăghici (2011); Landry and Hyams (2012); Kloudová and Chwaszcz (2012); Hartley et al. (2012); Çetindamar and Günsel (2012); UNESCO (2013); Correia and Costa (2014); Florida et

al. (2015); Hudec and Klasová (2016); Żelazny and Pietrucha (2017); Chaloupková et al. (2018); Castro-Higueras and de Aguilera-Moyano (2018); Alexy et al. (2018); Montalto et al. (2019b); Rodrigues and Franco (2019a); Rodrigues and Franco (2019b); de Figueiredo et al. (2019); Ndou et al. (2019); Boal-San Miguel and Herrero-Prieto (2020); Kregždaitė et al. (2020); Pulido-Fernández et al. (2021).

Source: Author's research based on Mikulić and Jelušić (2025)

For each index, the authors, level of application (city, region, or country), key concepts and a description of methodology and significant characteristics are provided, enabling a comparative analysis of different approaches to measuring creative potential and the development of the creative sector.

2.3.2. Challenges and limitations in measuring the creative economy

Measuring the creative economy is a challenging task. Based on an extensive review of the literature on creativity indices, several ***general observations*** can be drawn that reflect global challenges in measuring creativity and are essential for guiding further research:

- **Complexity of the Construct / Differences in Definitions**

The creative economy is a dynamic and still not fully stabilized concept; its meaning and components vary depending on the context. The various definitions reflect a lack of unified theoretical and policy consensus. Furthermore, classification systems of the so-called creative activities and industries derive from different conceptual models developed and promoted by numerous national, supranational, regional and interregional organizations and authorities. The concept of the creative economy remains a source of significant confusion and ambiguity. What should this term encompass and what should be excluded? The development and application of creative economy indicators are inseparably linked to the answers to these questions.

Existing definitions of creative industries often fail to recognize creative work outside cultural, aesthetic and affective domains, thereby excluding important sectors that generate creative output. Additionally, the category of "creative industries" is so broad that it complicates its analysis, encompassing various sectors and industries: advertising, design, architecture, film, television, music, fashion, electronic publishing, software, online gaming, arts and crafts, entertainment and recreational industries.

With such a diverse selection of sectors within the creative industries, designing and implementing effective economic and social policies can become either too unfocused and fragmented or overly generalized by applying the same policies and instruments across different sectors. Another problem arising from the lack of clarity around the "creative industries" category is the serious risk of misdirected policy - or at least hampered appropriate policy. Misleading growth data that

overemphasize the economic value of creative industries may prompt governments to direct resources toward initiatives that do not generate the intended benefits.

- **Core literature struggles with the concept**

The literature faces challenges with both the concept of the creative economy and its practical application. Research on creative industries focuses on clarifying the concept, defining the rationale for linking it to cultural industries and highlighting differences, characteristics and relationships between cultural and creative industries. Other related terms include "cultural industries," "creative industries," "copyright industries," and "content industries." Despite the growing literature on the creative economy, the authors are academics and policymakers within different frameworks, with varying goals and contexts. Often, the literature does not define the terms used; many are used interchangeably or synonymously, e.g., "creative industries" vs. "cultural industries," or "creativity" vs. "innovation." This further increases the imprecision and ambiguity inherent in the subject.

- **Suitability of indicator development procedures**

Most published studies provide little evidence of following statistical advancements into the development of creative indicators. There is also the risk that creative industries may overlook actual creativity and culture (Kong, 2014). As previous studies have discussed (Mikulić and Jelušić, 2025; Jelinčić, 2021), the methodological procedures behind several available creative indicators are inappropriate or unclear.

- **Challenges in selecting relevant components / attributes / measurement approaches**

Measuring creativity at a territorial level is complex due to the difficulty of defining and delimiting cultural domains and the various components that constitute creativity (Ortega-Villa and Ley-García, 2018; Kemeny et al., 2019; Rodrigues and Franco, 2018), as well as the multitude of aspects and high heterogeneity of actors involved.

In the academic sphere, there are two main approaches to measuring the scope of the creative economy: the sectoral and the occupational approaches. The sectoral approach emerged first, focusing on identifying creative industries within a given area. This approach has led to numerous studies aimed at measuring the sectoral dimension and territorial impact of creative industries, with many exercises applied to the European Union (Seuwaegen and Ramboer, 2019; Boix et al., 2012) and on a global level (Cooke and Lazzeretti, 2008; He and Gebhardt, 2014).

The occupational approach emerged later, based on Richard Florida's work (Florida, 2002). It addresses the concept of the creative class - a group of professionals dedicated to culturally shaped creative activities, as well as those engaged in market-oriented creative activities demonstrating a certain level of talent and skill, concentrated in areas with specific conditions and lifestyles (Florida and Tinagli, 2004).

This approach has led to numerous studies measuring the territorial concentration of the creative class, generally quantified through employment in creative occupations (Boschma and Fritsch, 2009; Kemeny et al., 2019). The presence of cultural content and intensive cultural characterization in the observed area is increasingly recognized as critical (Cerisola, 2018; Backman and Nilsson, 2018). The spatial dimension is therefore essential in creative sectors, representing the context in which collaboration networks exist, enabling knowledge diffusion and the generation of creative processes (Rodrigues and Franco, 2019a).

- **Data issues** (Availability and Accessibility of Timely, Reliable, Comparable and Accurate Data)

The availability and accessibility of timely, reliable, comparable and accurate data related to tourism are crucial for developing high - quality indicators. Additionally, data must be appropriate, sufficient and comparable across different demarcations to effectively measure territorial creative potential. While most developed countries collect reliable tourism data, less developed countries often struggle to provide accurate and timely statistics.

2.4. Creativity in tourism context

Tourism is one of the key drivers of economic growth in the field of culture and creativity (Richards, 2011). The shift towards creativity can be seen not only as a general trend in academic disciplines but also as a broader instrumentalization of culture and creativity. Creativity becomes a strategy that cities and regions use to stimulate economic growth, enhance innovation and develop individual skills. All of these changes can be linked to globalization, commodification, increasing competition among cities and regions and the development of the knowledge economy and networked economy (Mommaas, 2009).

Creative tourism today represents a young but highly dynamic field that has produced a wide range of research topics, theoretical debates, methodological approaches and empirical studies (Richards, 2020). Although a universally accepted definition of this concept does not yet exist (Remoaldo et al., 2019), the literature includes theoretical foundations (Carvalho et al., 2019), studies on the evolution and dynamics of creative tourism (Duxbury and Richards, 2019b), analyses of visitor and service provider perspectives (Melo et al., 2019) and new concepts emerging from the broader framework of the creative economy (Richards, 2012; OECD, 2014; Smith, 2015; Long and Morpeth, 2016; Richards, 2018; Mikulić and Jelušić, 2021).

Ccreative tourism has been developing for almost two decades, starting in the late 1990s when the first ideas about this specific tourism niche were established. A review of the literature (Richards and Wilson, 2006, 2007a; Binkhorst and Den Dekker, 2009; Richards and Marques, 2012; Smith, 2015; Richards, 2009, 2011, 2012a, 2014, 2016, 2018a, 2020) traces the process that let to the

inception of creative tourism which emerged as a natural extension of cultural tourism or as a response to its shortcomings (King, 2009; Smith, 2015). Recent research pays particular attention to the design of creative places (Richards, 2020), the development of new models of creative tourism (Richards, 2021a) and its evolution in smaller towns and rural communities (Duxbury et al., 2018, 2019), with an emphasis on sustainability (Einali et al., 2019; De Abreu Santos, 2021; Baixinho et al., 2021) and regenerative approaches to tourism (Duxbury et al., 2020).

Cultural tourism remains a key framework for understanding creative tourism (King, 2009). Creative tourism is often described as the "next generation of cultural tourism" because it fulfills the needs for self-realization and active skill development (Ohridska-Olson and Ivanov, 2010). Mass destinations in the early 2000s contributed to the development of the creative tourism concept, whose primary purpose is to provide authentic and creative experiences through active interaction between visitors and local residents (Raymond, 2007).

Krajnović and Gortan-Carlin (2007) explain that cultural and creative tourism differ in terms of the types of activities and the value they generate for consumers. Cultural tourism focuses on architectural heritage and is often driven by the public sector, whereas creative tourism emphasizes knowledge, skills and commercial offerings (OECD, 2014). Mass consumption and the serial reproduction of cultural products led to the need for specialized tourist segments and the active involvement of consumers in co-creation processes (Richards and Wilson, 2006, 2007b; Smith, 2015).

Cultural tourism has traditionally been passive, whereas creative tourism entails interactive participation connected to a place, its people, or its creative industries (Smith, 2015). This dynamic contributes to the diversification of cultural resources and the strengthening of personalized experiences (Bourdieu and Darbel, 2003; Richards, 2011, 2013; Richards and Wilson, 2006, 2007b).

2.4.1. Creative tourism: conceptual development and key characteristics

The concept of creative tourism has developed progressively since the early 2000s, moving from an initial conceptual recognition towards a more complex and multidimensional research field. Early academic contributions framed creative tourism as an experiential extension of cultural tourism, emphasizing active engagement and learning processes that go beyond passive observation (Richards and Raymond, 2000). This initial focus on participation laid the groundwork for later interpretations that increasingly stressed interaction and experiential value.

In the mid-2000s, research further expanded the scope of the concept by highlighting the importance of authenticity, participation and direct engagement with local communities as key components of tourism experiences (Binkhorst, 2007; Richards and Wilson, 2006, 2007a). During

this period, the idea of co-creation emerged as a central analytical element, marking a shift towards more interactive relationships between tourists and destinations.

From a conceptual perspective, the late 2000s and early 2010s saw increasing attention to the relationship between cultural tourism and creative tourism. Scholars began to position creative tourism as a response to the limitations of traditional cultural tourism models, particularly their passive consumption patterns and limited visitor engagement. In this context, creative tourism was increasingly understood as a mechanism for enhancing cultural resource utilisation and fostering more meaningful visitor experiences within destinations (Gordin and Matetskaya, 2012; Stojanović et al,, 2012).

During the same period, theoretical contributions began to emphasize the systemic and relational nature of creative tourism. Richards (2011) introduced the notion of value creation through interaction between producers and consumers, while Jelinčić and Žuvela (2012) highlighted its role in reinterpreting and enriching cultural and natural resources rather than exploiting them. These perspectives contributed to a broader understanding of creative tourism as a dynamic process embedded in socio-economic and cultural systems.

By the early to mid-2010s, research further diversified, focusing on behavioural, motivational and structural dimensions of creative tourism. Studies examined different types of tourists based on their motivations and engagement patterns, reflecting the heterogeneity of demand within this tourism segment (Tan et al., 2013, 2014). At the same time, attention shifted towards the broader economic and innovation context, with creative tourism increasingly linked to postmodern consumption patterns and experience-based value creation (Carvalho et al., 2019; Voss, 2004).
More recent literature has placed strong emphasis on sustainability, innovation and transformation within creative tourism systems. The focus has shifted from individual experiences towards broader destination development processes, including the role of co-creation, networked relations and the integration of cultural and creative resources into tourism development strategies (Richards, 2016; Binkhorst, 2005, 2007; Campos et al., 2015). In this context, tourists are increasingly conceptualised as active participants in experience creation rather than passive consumers.

Contemporary research further highlights the diversification and hybridisation of creative tourism practices, reflecting its expansion across different spatial and thematic contexts. Current studies emphasize its integration with creative industries, cultural heritage and participatory cultural production, positioning it as an evolving framework that connects culture, creativity and tourism within broader socio-economic development processes (Baixinho et al., 2021; Duxbury and Richards, 2019b).

Table 6 provides a synthesis of the key literature on creative tourism, summarising the main academic contributions and conceptual developments in the field.

Table 6. Synthesis of key literature on creative tourism concepts

Source	***Concept description***
Richards and Raymond, 2000	Participatory learning about the arts, heritage, or distinctive character of a place provides a connection with those who live there and create its living culture.
Richards and Wilson, 2006	Tourism that offers visitors the opportunity to develop their creative potential through active participation in learning experiences characteristic of the destination.
UNESCO, 2006	Travel focused on engaged and authentic experiences, with participatory learning in the arts, heritage, or distinctive character of a place, providing a connection with local people who create its living culture.
Raymond, 2007	A type of tourism developed from cultural tourism, involving learning a specific skill during a holiday that belongs to the culture of the host country or community.
Richards and Wilson, 2007a	Engages tourists deeply in the cultural experience of a destination, participating in various activities—culinary and other creative activities, crafts and arts—thus creating a close connection between tourists, locals and their cultural heritage.
Richards, 2011	Creative tourism is a form of networked tourism, relying on the ability of producers and consumers to establish mutual connections and create value through their experiences.
Jelinčić and Žuvela, 2012	Creative tourism represents a new projection of tourism in which natural, cultural and personal resources are not manipulated or exploited but valued and enriched.
Baixinho et.al. ,2021	Creative tourism is a comprehensive concept encompassing six main groups or categories of experiences: • Arts – visual and applied arts (e.g., photography workshops); • Creative industries – advertising, animation, architecture, design, fashion, film, games, gastronomy, music, performing arts, software and interactive media, TV, radio, books and print, etc.; • Creative spaces – creative enclaves, creative districts, creative clusters; • Creative events – spectacles, shows, performances, festivals, fairs, celebrations, museum nights, etc.;

Source	*Concept description*
	• Intangible heritage – crafts and visual arts, gastronomy and culinary customs, social customs, rituals and ceremonial events, music and performing arts, oral traditions and expressions, knowledge and customs related to nature and the universe; • Co-creation activities – dimension connecting visitors and locals, focusing on co-production.

Source: Author's elaboration

Creative tourism has experienced significant development over the past twenty years (Richards, 2021f). Although there is still no consensus on its definition, its presence and influence are expanding globally (Richards, 2011, 2016; Smith, 2015; Remoaldo et al., 2019). According to Baixinho et al. (2021, p. 1227), the concept of creative tourism evolved in parallel with broader cultural, social and economic trends that shaped the relationship between tourism, culture and creativity.

The development of creative tourism can be divided into four successive phases, all of which remain active today:

1. Phase One – Creative Tourism 1.0 (2000): Characterized by more informal, small-scale learning experiences, such as workshops offered by local artists and craftspeople.
2. Phase Two – Creative Tourism 2.0 (2005): Marked by the rise of the internet and an increased focus on creative experiences at destinations, primarily related to intangible resources such as image, identity, lifestyle, atmosphere and narrative, as well as networks that facilitate their market distribution.
3. Phase Three – Creative Tourism 3.0 (2010): Characterized by stronger integration between tourism and creative industries, broadening the range of creative experiences to include more passive forms of creative consumption, such as creative spectacles.
4. Phase Four – Creative Tourism 4.0 (2015): Defined by the development of relational forms of tourism, where experiences between hosts and visitors are co-created through peer-to-peer networks.

The result of these changes has been a significant increase in the scope and diversity of creative tourism, with various forms developing in numerous locations worldwide (Duxbury and Richards, 2019b).

2.4.2. The evolution and structural development of creative tourism

The development of creative tourism has been characterised by continuous transformation and diversification, leading to the emergence of new business models and increasingly complex forms

of value creation (Richards, 2021c,e). In its early phase, often referred to as Creative Tourism 1.0, development was primarily based on relatively limited networks of actors and activities, typically involving direct interactions between producers and consumers. However, as the concept evolved, there has been a significant expansion in the range of stakeholders involved, including actors from different economic sectors, local authorities, cultural organisations and digital platforms (Duxbury and Richards, 2019b).

This expansion has fundamentally changed the structure of value creation within creative tourism systems. While earlier models were largely focused on individual experiential and economic value, contemporary approaches increasingly incorporate institutional and inclusive forms of value, alongside intrinsic value for consumers and instrumental (primarily economic) value for producers. The integration of diverse stakeholders has thus enabled more complex interactions and synergies across sectors, reinforcing the role of creative tourism as a cross-sectoral development mechanism.

In parallel with these structural changes, the conceptualization of destination competitiveness has also evolved. Destinations have increasingly relied on cultural distinctiveness as a key differentiating factor (Richards and Wilson, 2007b). However, due to the global diffusion of culture-driven development strategies, many destinations have gradually lost their uniqueness, as similar approaches and frameworks have been widely adopted (Jelinčić and Žuvela, 2012). Consequently, culture alone is no longer sufficient as a competitive advantage and greater emphasis has been placed on creativity as a dynamic source of differentiation. Creativity is increasingly understood as the ability of a destination to innovate its tourism offerings and generate unique experiences (Richards and Wilson, 2006; Tan, Luh and Kung, 2014; Teodorescu et al., 2015).

The evolution of creative tourism has also been reflected in the transformation of business models. In its initial stages, many organisations operated as lifestyle businesses with limited strategic planning or structured value creation models (Tan, Kung and Luh, 2013). However, with the increasing involvement of multiple stakeholders - including networks, local governments and technological platforms - greater attention has been devoted to the development of structured business models and long-term growth strategies. This shift has also been accompanied by a transition from “lifestyle entrepreneurship” towards “placestyle entrepreneurship,” where value creation is increasingly linked to the meaning and identity of place and where the physical environment itself becomes an integral part of the tourism experience.

A key characteristic of this transformation is the growing role of co-creation. Traditional producers of creative experiences are increasingly required to recognise that consumers actively participate in the creation and promotion of their own experiences. This reflects a broader shift in which creativity is no longer understood as an exclusive attribute of destinations, but rather as a shared

process between destinations and visitors (Richards, 2021e). In this context, creative tourism does not emerge spontaneously but requires deliberate development through continuous interaction between tourists and destinations (Richards, 2009).

The successful development of creative tourism therefore depends on the ability of destinations to mobilise and integrate a wide range of resources, including heritage, cultural assets and innovative practices, in order to provide distinctive and meaningful experiences. This also requires destination managers to move beyond their traditional role as providers of tourism products and services and to reposition themselves as facilitators of tourism creativity. Such a shift involves embedding creativity within the destination itself, so that visitors engage with places where creativity is actively produced and experienced (OECD, 2014).

Both demand and supply-side dynamics are essential in this process. On the demand side, tourists increasingly seek personalised, meaningful and participatory experiences, while on the supply side, destinations must design innovative offerings that respond to these expectations (Tan et al., 2014). This has led to a growing recognition that competitiveness in tourism increasingly depends on the ability to move beyond standardised service provision and to creatively respond to individual consumer needs (Teodorescu et al., 2015).

Institutionally, both the public and private sectors play complementary roles in the development of creative tourism. The public sector is primarily responsible for creating enabling environments, while the private sector contributes through innovation, coordination and networking activities aimed at addressing shared challenges (UNESCO, 2006; Melo et al., 2019). In this context, the creation and maintenance of networks has become particularly important, especially in the absence of formalised policy frameworks for creative tourism development (Richards and Marques, 2012).

At the same time, local communities have emerged as key actors within the creative tourism ecosystem. As primary custodians of cultural, natural and social resources, they play a crucial role in ensuring sustainable governance, preventing resource degradation and enhancing the overall quality of the tourist experience. A comprehensive understanding of creative tourism therefore requires the integration of both supply and demand perspectives, as both are essential for advancing knowledge and supporting the development of more active, meaningful and engaging tourism experiences (Melo et al., 2019).

3. CREATIVE ECONOMY AND TOURISM: GLOBAL INSIGHTS

The Chapter *Creative economy and tourism: global insights* examines the synergy between the creative economy and tourism from the perspective of sustainable development of tourist destinations.

The primary aim is to explore the relationship between the creative economy and tourism, with a particular focus on their mutual interactions. The analysis addresses part of the existing research gap through an integrative review of relevant literature, complemented by semi-structured interviews with academic experts. This combined approach provides a foundation for understanding existing theoretical and practical perspectives, while also informing the development of guidelines for future research and for advancing sustainable and innovative approaches within the creative economy and tourism sectors.

The specific research objectives are:

- To identify key themes and challenges in integrating the creative economy and sustainable tourism.
- To investigate the synergistic effects between these two sectors on the development of sustainable tourist destinations.
- To propose practical recommendations for tourism and creative industries to contribute to the long-term sustainability of tourist destinations.

This chapter is organized into two main sections. The first part (3.1) presents the qualitative research framework and elaborates the methodological approach adopted in the research, including the integrative literature review, expert interviews and the analytical procedures applied in the research process. The second part (3.2) presents the research results through three thematic sub-sections. Section 3.2.1 examines international examples of synergies between the creative economy and tourism in the context of sustainable destination development. Section 3.2.2 identifies the principal themes and challenges emerging from the creative economy–tourism nexus in destination development. Section 3.2.3 discusses future research directions and outlines the key theoretical and practical implications of the research.

This chapter contributes to the ongoing discussion on the need to recognize and evaluate the specific impacts of the creative economy on sustainability, with a focus on cultural and creative tourism and innovative practices in destination development.

3.1. Exploratory qualitative research framework

This stage of the analysis is designed as qualitative, exploratory and descriptive, aiming to identify and interpret the core concepts, trends and challenges arising from the model connecting the creative economy and tourism. In this phase, a working hypothesis is used as a guideline for structuring data collection and interpreting findings.

A ***working hypothesis*** represents a temporary, testable assumption that guides the research process. It serves as an active tool in the early stages of research, particularly in qualitative and exploratory approaches, as it helps structure data collection and interpretation (Mead, 1899; Dewey, 1938; Cronbach, 1975; Stebbins, 2001; Gobo, 2008). The working hypothesis is not a final statement - it can be modified or expanded as new data is collected. Its purpose is to encourage purposeful research and facilitate the connection between theoretical background and empirical findings (Reiter, 2013; Thomas and Magilvy, 2011). The use of a working hypothesis is especially valuable in studies integrating qualitative interviews, quantitative data and secondary sources, as it provides a structured framework for testing preliminary assumptions and shaping guidelines for further analysis (Adler and Clark, 2008; Biddle and Schafft, 2015).

In the context of this research, the working hypothesis is:
The creative economy and tourism are related in their effects on sustainable development and the economy as a whole.

This hypothesis directs the analysis of literature and interviews toward exploring their mutual synergy, allowing the identification of key trends, challenges and opportunities in integrating creative industries and the tourism sector.

To validate the working hypothesis, the research was conducted in two phases:

- **The *first phase*** aimed to synthesize existing and emerging challenges and opportunities, trends in the synergistic relationship between the creative economy and tourism and their joint contribution to sustainability. In line with the primary objective, additional questions were formulated: What are the current trends in academic literature on the relationship between the creative economy and tourism and their contribution to sustainable development? Is there a synergy between the creative economy and tourism in terms of their impact on sustainable development and the overall economy? If so, what are the theoretical and practical implications for tourism development?

Integrative literature review

The Scopus database was used for the literature analysis. Keywords were selected based on preliminary reviews and included terms such as "creative economy," "creative tourism," "sustainability," "cultural heritage preservation," and "tourism development." The focus was on articles and books published between 2013 and 2023 to ensure the relevance and currency of sources.

Inclusion criteria were:
i) Direct relevance to the interaction between the creative economy and tourism, with particular emphasis on sustainability and innovation;
ii) Academic quality, assessed based on journal impact factors and peer-review processes;
iii) Diversity of geographic and sectoral approaches, enabling an understanding of the phenomenon across different cultural and economic contexts.

After the initial collection of over 150 sources, the selection and evaluation process reduced the sample to 45 key publications, that were then subjected to thematic analysis. The data were synthesized to identify dominant themes and challenges, presented in Table 8.

The first part of the research explores the interaction between the creative economy and tourism through international examples of cultural and creative initiatives in sustainable development.

The analysis focuses on the social, economic and cultural contributions of creative sectors, with particular attention to their role in strengthening local communities and enhancing visitor experiences. This phase provides the conceptual basis for understanding how creativity contributes to sustainable tourism development.

- **The *second phase*** involved in-depth interviews with a group of experts in (creative) tourism to explore the interconnections between the creative economy and tourism, as well as their role in sustainable development, economic stability and the future development of the sector.

The results were presented as dominant themes and challenges for destination development, along with lessons for guiding destination growth.

Semi-structured expert interviews

To further strengthen the theoretical framework and ensure the practical relevance of the research findings, four interviews were conducted with academic experts and practitioners in the fields of

creative economy, tourism and sustainable development. A sample questionnaire is included in Appendix 1.

Experts were selected using purposive sampling based on three criteria: academic visibility in the field, research experience in the creative economy and tourism and active involvement in international research networks. This ensured both subject-matter expertise and comparative international relevance. Participants were identified through Scopus citation analysis (Figure 1) and four experts agreed to participate based on the search query (("Creative economy" OR "Creative industries" AND "Tourism") AND (Limit-to (subject area , "Social sciences").

Semi-structured interviews represent a qualitative data collection method that allows researchers to combine pre-prepared questions with flexibility for follow-up clarifications and adjustments during the conversation. This method is particularly useful in studies requiring an in-depth understanding of expert knowledge and practical experience, emphasizing context, perceptions and attitudes not easily captured through quantitative approaches. The semi-structured approach enables researchers to explore complex phenomena, identify key challenges and potentials and gain detailed insights into specific areas, such as the integration of the creative economy into tourism development (Kvale, 2009).

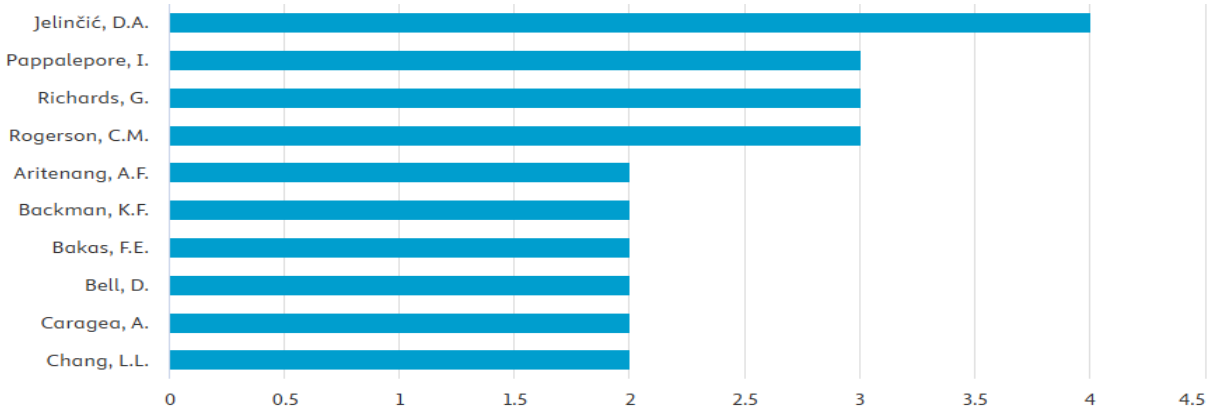

Figure 1. Scopus based identification of experts and sampling criteria for qualitative interviews
Source: Author's elaboration - Scopus analysis

The interviews were based on a pre-designed guide, covering key topics such as perceptions of the synergy between the creative economy and tourism, main challenges in the context of sustainable development and proposals for improving policies and practices. Interviews were conducted between July and September 2023 via Microsoft Teams, each lasting approximately 45 minutes.

The collected data were analyzed using thematic analysis according to Braun and Clarke (2006), and involved the systematic identification of recurring themes, grouping them into broader conceptual categories and linking them to the research objectives.

Table 7. List of experts participating in the research

Name	***Position***
Daniela A. Jelenčić	Institute for Development and International Relations, Department of Culture and Communication, Zagreb, Croatia. Research interests: cultural tourism, cultural heritage management, cultural/creative industries, cultural and tourism policy, creativity, experience economy and social innovation.
Greg Richards	Professor of Placemaking and Events at Breda University of Applied Sciences and Professor of Leisure Studies at the University of Tilburg in The Netherlands. His current research interests center on the creative use of space for cultural, social and economic development. Research interests: creative tourism, creativity, cultural tourism, event management and placemaking
David Bell	Professor of Cultural Geography, University of Leeds, UK Research interests: cultural policy; urban and rural cultures; consumption (especially food and drink); hospitality; media geographies; cultural studies.
Christian Rogerson	Distinguished Research Professor, School of Tourism and Hospitality, Auckland Park, South Africa Research interests: local and regional development, small enterprise development and tourism in the global South; unpacking business tourism in sub-Saharan Africa; transforming local spaces through innovation and tourism; inclusive tourism and local development; the informal economy and small business incubators; and the historical evolution of South Africa's tourism industry.

Source: Author's own elaboration

Data analysis

The data collected through the integrative literature review and expert interviews were processed using thematic analysis (Braun and Clarke, 2006), which enabled the identification of key themes linking the creative economy and tourism. The analysis involved systematic content coding with an emphasis on recognizing patterns, contradictions and synergies across different sources.

As a result of this analytical process, ten dominant thematic areas were identified, representing the core dimensions through which the interaction between the creative economy and tourism is manifested (subchapter 3.2.3). These thematic units emerged from iterative coding and cross-comparison of literature and expert insights, ensuring both theoretical grounding and empirical relevance.

The thematic structure forms a conceptual bridge between qualitative insights and the subsequent quantitative analysis and serves as a foundation for developing research implications, policy recommendations and future research directions (subchapter 3.2.4).

3.2. Analysis and findings

This section presents the conceptual analysis of the relationship between the creative economy and tourism development, building on the theoretical foundations established in the previous chapter. It is structured around several interconnected analytical perspectives that jointly explain how creativity contributes to sustainable destination development, structural transformation and competitiveness of tourism systems. The findings are organised through thematic sub-sections that examine synergies between creativity and tourism, key development mechanisms, as well as structural challenges and future directions.

3.2.1. Creative synergies for sustainable destination development

Sustainable tourism development is a long-term, integrated process aimed at maximizing economic, environmental, social and cultural benefits for a destination (Hall, 2008). Within the tourism sector, the pursuit of sustainability has led to attempts to create alternative forms of tourism with lower impacts on the environment and communities (Dwyer, 2017). Creative tourism aligns with the United Nations Sustainable Development Goals (SDGs), such as promoting sustainable economic growth (SDG 8), reducing inequalities (SDG 10) and developing sustainable cities and communities (SDG 11). By focusing on local resources, creative tourism can offer a transformative approach to tourism development that benefits both the destination and the visitor while promoting long-term sustainability (Duxbury, Carvalho and Albino, 2021c).

Recent years have seen growing research on the potential of creative and cultural tourism to promote sustainable development of tourism destinations (Korez-Vide, 2013; Duxbury, Carvalho and Albino, 2021a). This perspective emphasizes the synergy between creativity, culture and sustainability, analyzing how these sectors can collaborate to contribute to long-term economic, social and environmental benefits. The concept of sustainability in cultural and creative tourism requires not only a deeper understanding of creative industries and their relationship with tourism

but also the active involvement of local communities and a commitment to preserving cultural heritage while promoting innovative and authentic visitor experiences.

The development of sustainable creative tourism requires a holistic approach that involves collaboration among all stakeholders—residents, tourists, cultural experts and policymakers. Creative tourism can contribute to the revitalization and sustainability of local communities, preserving cultural heritage and fostering innovation (Duxbury, Bakas, de Castro and Silva, 2021e).

The reciprocal relationship between creativity and tourism generates new values and positive effects, attracting new target groups and expanding the range of products integrated with creative content into tourism experiences. This positively influences the destination's image and promotes harmonious interaction among creative professionals, tourists and local residents. Cultural identity plays a vital role in sustainable development and regional resilience, contributing to social cohesion, inclusion, participation and the well-being of local communities (Nocca, 2017). Creative tourism promotes and nurtures the cultural identity of destinations by incorporating indigenous culture and arts and crafts specific to each location (Richards, 2011; Chugh, 2018).

The relationship between creativity and tourism in the contemporary context is increasingly defined through the integration of creative industries and cultural practices into tourism strategies, creating opportunities for innovative experiences and sustainable destination development. Creative industries - including traditional arts as well as new sectors dominated by innovation, aesthetics and culture, have become key drivers in shaping tourism products and experiences (Scott, 1999; UN, 2013). Their combination within the creative economy allows for the development of tourism offerings that integrate cultural content, technology and creative skills, generating synergies that strengthen destination branding, enhance competitiveness and promote local community development (OECD, 2014).

Sustainable development is defined as an approach that meets the needs of the present without compromising the ability of future generations to meet their own needs, aiming for a balance between economic sustainability, social equity and environmental protection (WCED, 1987). In tourism, this entails developing destinations and experiences in ways that promote the local economy, environmental conservation, social inclusion and cultural identity simultaneously. Integrating the creative economy into tourism further contributes to sustainability by leveraging creative talent, cultural resources and innovation to create attractive and differentiated tourism products, fostering economic growth, social inclusion and environmental and heritage preservation (UNCTAD, 2018; Richards, 2018a).

Creative tourism particularly supports sustainable development by actively engaging local communities and visitors in cultural and creative activities, generating added value and balancing

economic, social and ecological dimensions. This approach enables long-term destination competitiveness, strengthens local identity and pride and creates synergies between tourism, creative industries and sustainable development (OECD, 2014; Baixinho et al., 2021).

In the past decade, interest has increased in the connection between creativity and economic performance across enterprises, industries, regions and national economies, recognizing creativity as a key source of innovation and sustainable development (Stojčić et al., 2016). The creative economy leverages creativity, technology, culture and innovation to promote inclusive and sustainable economic growth (UNCTAD, 2018). Promoting innovation and synergies between tourism, culture and creative industries is foundational for fostering a creative atmosphere as a driver of sustainable and competitive local development, creating multiplicative and complementary effects across sectors.

Della Lucia and Segre (2017) analyzed the specialization and clustering of cultural, creative and tourism industries within Italian local labor systems, showing that around 50% of local systems exhibit high concentrations of cultural and tourism activities, with tourism being the most specialized sector. Examples from Italy demonstrate how synergies between tourism, culture and creative industries can impact economic and spatial development. Clusters of cultural heritage and information industries open opportunities for developing diverse forms of creative tourism, promoting the production of creative content and linking heritage, creativity and network/cluster creation capabilities (Richards, 2013; OECD, 2014).

The creative economy influences overall economic growth through economic, social, technological, scientific and cultural variables, with its effectiveness depending on human capital, the ability to attract the creative class and the translation of creative potential into new ideas and regional growth (Florida, 2002). For example, in Lithuania, Martinaitytė and Kregždaitė (2015) highlight that the most important factors for creative industry development are private cultural consumption and the creativity index, requiring long-term changes in education and cultural policy to enhance these factors.

Creativity in tourism is also leveraged to enhance destination image, attract visitors and draw the "creative class," generating economic, cultural and social benefits (Richards, 2018). Technology and new media facilitate the dissemination of creative content and innovative tourism experiences, while digital platforms and social networks create new opportunities for content distribution and accessibility, including engagement with bloggers and content creators operating outside traditional tourism channels (Banks, 2017). Creative tourism thus transcends traditional cultural consumption paradigms, as local communities become active participants and co-creators of tourist experiences, increasing authenticity and interaction value within destinations.

Creative tourism contributes to sustainable destination development by promoting local entrepreneurship, developing tourism products based on authentic experiences and fostering cultural and social inclusion. It serves as a tool for small-scale tourism paradigms emphasizing place specificity, cultural sustainability and improved quality of life for local communities, aligning with SDGs such as inclusive and sustainable cities and sustainable production and consumption (Baixinho et al., 2021; Dias et al., 2021; Duxbury et al., 2020; SDG, 2015).

However, despite its benefits, linking tourism and creative industries faces challenges. Ambiguous definitions of "creative" complicate distinguishing cultural and creative tourism, while the dominant urban focus can marginalize rural communities, where creative practitioners often drive innovation and new enterprises (Long and Morpeth, 2016; Bell and Jayne, 2010). Greater participation of the creative sector in tourism destinations may also have unintended social consequences, as deeper penetration into residents' daily lives can lead to commercialization of private spaces and changes in community social dynamics (Long and Morpeth, 2013).

The relationship between the creative economy and tourism has increasingly been recognized through international practices demonstrating how creativity can enhance destination attractiveness, strengthen local economies and support sustainable tourism development. Cultural and creative initiatives contribute not only through direct tourism demand but also by generating broader economic, social and environmental benefits, reinforcing the role of creativity as a driver of destination competitiveness.

One important group of examples relates to cultural vibrancy, particularly festivals and heritage-based initiatives that combine cultural production with tourism development. The Hay Festival in the UK, Edinburgh Festival Fringe and the Dubrovnik Summer Festival illustrate how cultural events attract international visitors, increase tourism expenditure, stimulate local businesses and contribute to destination branding. Positive effects include growth in tourist arrivals, increased demand for local products and services, direct and indirect job creation, higher tourism revenues and stronger international visibility of destinations. Beyond economic impacts, such initiatives often incorporate sustainable event practices, including waste reduction, low-carbon mobility and the use of existing cultural infrastructure, thereby reducing environmental pressure while preserving cultural identity. Similarly, heritage-based initiatives such as Trakai Castle demonstrate how adaptive reuse of historical assets can support diversification of tourism products, protection of cultural heritage, community involvement, visitor education and long-term destination resilience.

Another important dimension is reflected in initiatives supporting an enabling environment for creative activity through institutions, creative ecosystems and innovation-oriented communities. Cases such as Design District Helsinki and Impact Hub Lisbon show how creative clusters, entrepreneurial ecosystems and digital innovation can strengthen tourism competitiveness while

fostering local talent, business development and international visibility. Positive effects associated with such initiatives include support for entrepreneurship, innovation-led job creation, destination promotion, diversification of tourism structures and spillover effects into related industries such as technology and telecommunications. In the context of emerging tourism trends, digital nomad initiatives linked to creative hubs also represent new forms of longer-stay tourism that can contribute to more stable tourism demand, greater local expenditure and reduced ecological pressure compared with short-term mass tourism models.

International examples also demonstrate the importance of creative base and innovative potential in shaping sustainable tourism practices. The Farm Cultural Park in Italy provides a notable example of creative regeneration, where abandoned urban spaces have been transformed into cultural and tourism assets. Likewise, Sweden's ReTuna Återbruksgalleria, built around circular economy principles, illustrates how innovation in design and reuse can simultaneously support creative industries, environmental sustainability and tourism attractiveness. Similar dynamics can be observed in gastronomy-based initiatives such as the Slow Food Movement and Douro Valley wine tourism, where creativity supports sustainable agriculture, preservation of local traditions and the development of authentic tourism experiences. Their positive effects include promotion of rural development, support for local producers, preservation of culinary heritage, increased demand for sustainable products and stronger links between tourism and local value chains.

Ecotourism and participatory creative tourism initiatives further illustrate how creativity contributes to more sustainable and diversified tourism models. Examples such as Culinary Backstreets, Ecomuseum Blaca and the Creative Tourism Network show how tourists increasingly seek immersive experiences based on local knowledge, crafts, gastronomy and environmental awareness. These initiatives generate positive outcomes through diversification of tourism offerings, increased visitor engagement, support for small enterprises, stronger community participation and reduced ecological footprints through sustainable practices and the use of local resources.

Across these examples, several recurring positive effects can be identified. First, creative and cultural initiatives contribute to economic development through increased visitor spending, job creation, support for entrepreneurship, stronger local multiplier effects and international destination promotion. Second, they strengthen social and cultural sustainability through heritage preservation, reinforcement of local identity, community participation, education and cultural exchange. Third, many initiatives support environmental sustainability through adaptive reuse of existing assets, circular economy practices, sustainable agriculture, ecological awareness and lower environmental impacts of tourism activities. Additional benefits include greater destination competitiveness, diversification of tourism products, revitalization of rural and peripheral areas and increased resilience of tourism destinations to changing market and sustainability challenges.

3.2.3. Key themes and challenges in destination development

The development of tourism in the contemporary context is increasingly linked to the preservation and valorization of cultural heritage, as well as the promotion of creative industries that shape the identity and distinctiveness of destinations. According to the guidelines of the United Nations World Tourism Organization (UNWTO), sustainable tourism cannot develop without respecting the socio-cultural authenticity of local communities, protecting cultural heritage and preserving traditional values. In this context, cultural and creative expressions become not only resources for shaping tourism offerings but also key instruments for preserving cultural identity and building the competitiveness of destinations in the global market.

Culture and creative expressions play a key role in tourism development, with traditional arts and crafts increasingly serving as a means of preserving cultural heritage and stimulating the local economy. The phenomenon of using traditional arts and crafts for tourism purposes can prevent certain art forms from disappearing entirely, while simultaneously allowing communities to benefit economically from high-quality artistic products. In this context, the question arises as to how tourism affects traditional crafts and how local artisans perceive changes driven by tourist demand.

Festivals, which are crucial for destination promotion, enhance a city's image in a relatively short period (Getz, 1991) and increase destination attractiveness (Kim, Borges and Chon, 2006) and visitor satisfaction (Bigne et al., 2001). Their role goes beyond mere entertainment for tourists; they sustain local traditions (Felsenstein and Fleischer, 2003); regenerate areas economically (Pacione, 2014), socially and culturally, stimulate creativity among locals and visitors; and facilitate greater interaction and engagement in the tourism industry (Smith and Richards, 2013). From the 1990s to the present, the number of festivals in Europe and worldwide has grown significantly, driven by urban policies, economic restructuring and the culturalization of traditional sectors (Quinn, 2005; Scott, 2000), while festivals increasingly serve as a city strategy to achieve economic, social and cultural benefits (McKercher et al., 2006; Quinn, 2005). Major events and festivals now represent a significant growth area within the tourism industry (Getz, 2005; Jackson et al., 2005; Li and Petrick, 2006), although research traditionally emphasizes their economic impacts primarily.

Performing arts, including music, theater, dance, opera and puppetry, represent an important segment of cultural tourism. The festival sector in performing arts is one of the fastest-growing and most popular within the industry (Stankova and Vassenska, 2015), as it enables cultural exchange and interaction between artists and audiences through various components, including history, cuisine, music and dance. Dance, as a universal phenomenon, is a form of communication and expression and has historically been a strong cultural element (Zouni et al., 2019). Authentic performances by local artists are more attractive to tourists than performances by foreign artists

(Xie et al., 2010; Zhu, 2012). Tourism performing arts (TPA) combine artistic performance and entertainment, delivering both economic and intangible benefits, such as cultural promotion and community pride, but can also trigger social conflicts at destinations (Lin, Chen and Filieri, 2017). UNESCO defines intangible cultural heritage as a set of practices, knowledge, skills and cultural spaces recognized by communities as part of their heritage (UNESCO, 2013). Traditional performing arts allow tourists to learn about local culture, history and customs (Butler, 2006; Richards and Wilson, 2006), while simultaneously serving as a resource for the development of new tourism projects.

Mass media, including film, television and radio, play a key role in shaping tourism decisions. Tourists often choose destinations based on information received from the media, even if they have never visited the attractions (Gursoy and McCleary, 2004; Govers, Go and Kumar, 2007). Advertising tourist destinations through media increases destination awareness, promotes tourism products and strengthens brand image (Morgan et al., 2011).

With the development of new media, such as online platforms, blogs and social networks, tourist experiences are increasingly shaped by information available online. Information and communication technologies (ICT) have drastically changed the tourism industry, restructuring the value chain and stakeholder relationships (O'Connor and Frew, 2004; Inversini and Buhalis, 2009). Social media enables electronic dissemination of opinions, prediction of market trends and targeted advertising (Chan and Guillet, 2011; Curtis et al., 2010; Asur and Huberman, 2012). Specific forms, such as gaming tourism, attract thousands of visitors to destinations with concentrated casinos, such as Las Vegas and Macau (Metaxas and Folinas, 2016).

Creative services, including architecture, advertising and cultural projects, increasingly shape transformative tourism experiences that allow personal connection with nature, people and inner self (Seeler and Schänzel, 2019; Packer and Gill, 2017; Robledo and Batle, 2017). Architecture, in particular, contributes to tourist consumption and destination attractiveness, as the qualities of place and culture - including architecture, people, food and culture - strongly influence destination choice (Guetzkow, 2002; Judd, 2006; Maitland and Newman, 2008). Iconic architecture typifies a place and clearly signals to visitors that something significant is happening in the city, while simultaneously contributing to identity, cultural value and aesthetic recognizability of the destination (Hayllar et al., 2008). As a medium of identity, architecture promotes social relations and shapes visitor experience, making the heritage of the built environment an essential element of the tourism offering (Muratovski, 2012).

All these dimensions, from traditional arts and festivals to performing arts, mass and new media and architecture - highlight the complex interconnection between culture and tourism. Culture attracts tourists and also shapes experiences, promotes local identity, stimulates economic development and contributes to the preservation of intangible and tangible heritage. Tourism

becomes a space where creativity, tradition and technology intertwine to create a rich and multilayered cultural offering that meets the needs of contemporary travelers.

The interconnection between the creative economy, creative industries and tourism has become an increasingly significant trend in shaping innovative and sustainable tourism experiences. This opens up new opportunities for economic development, environmental sustainability and the preservation of cultural heritage. However, there is still a need for deeper research to understand the long-term effects and optimal models of collaboration between these sectors. Their synergy provides valuable lessons for achieving long-term sustainable growth.

Based on an integrative review of existing literature and discussions with academic researchers in the fields of tourism and creative economy, we highlight several dominant themes and current trends shaping the future development of these concepts. These lessons can serve as guidelines for future strategies in the development of tourism destinations. Key findings are presented in Table 8.

Table 8. Research findings on dominant themes and challenges in destination development

Dominant themes	***Lessons to guide destination development***
Creative initiatives and strategic resource management	The successful integration of the creative economy into tourism lies in the strategic management of resources, the encouragement of cooperation between local communities and the creative sector and the development of creative initiatives that support long-term sustainability
Creativity as the key to destination competitiveness	Creativity is essential for enhancing tourism offerings and attracting visitors. Culture, through the emotions it evokes, creates a long-term connection between tourists and destinations, fostering loyalty and increasing the likelihood that tourists will recommend the destination to others.
Cultural heritage as a sustainable identity	By integrating cultural traditions into the modern tourism framework, heritage becomes vibrant, recognizable and relevant for future generations, contributing to the sustainability of destinations. Key elements in achieving destination authenticity include emphasizing local identity and encouraging activities that reflect the community's unique character.

Dominant themes	***Lessons to guide destination development***
Innovation and sustainable management	Innovation and creativity play a key role in the long-term sustainability of tourism, enabling the integration of new approaches that reduce tourism's negative environmental and social impacts.
Collaboration and sector integration	New emerging trends such as digital opportunities, audience development, sustainability and a stronger interconnection between creative industries and other sectors, call for innovative management approaches.
Integrating technology and creative industries in sustainable tourism	Integrating creative industries and technology into tourism business models increases the economic resilience of destinations and strengthens social cohesion by involving local communities in creative projects. Integrating technological advances into the creative industries helps reduce the negative impacts of tourism on the environment.
Green tourism and creative industries	Green tourism and creative industries play a crucial role in sustainable tourism development, focusing on reducing ecological footprints and preserving cultural heritage.
Transformation of rural communities through creative industries	Establish tailor-made policies that ensure a balance between tourism development and the preservation of the authenticity of communities, including financial and institutional support, encouragement of local entrepreneurship, investment in infrastructure and education and promotion of initiatives aimed at preserving cultural values.
Social entrepreneurship and support for small entrepreneurs	By collaborating with local businesses and supporting small and medium-sized enterprises, creative industries can become a powerful driver of creative tourism development.
Future relations between creative industries and tourism	Future relations promise a significant contribution to sustainable development, while strengthening economic stability and preserving cultural values through innovative approaches and technological progress.

Source: Author's own elaboration based on an integrative review of existing literature and discussions with academic researchers in the fields of tourism and the creative economy

Based on the Table 8, the following part provides a detailed discussion of the identified dominant themes and their implications.

Creative initiatives and strategic resource management

The creative economy can provide new dynamics to the tourism offer, through innovative and creative processes. Cultural initiatives such as various workshops and art festivals can greatly contribute to tourism growth, as demonstrated by examples such as the "Year of Culture" in Leeds and the "Light Night" festival in the UK. Cities such as Rotterdam (the Netherlands) and Šibenik (Croatia) are leveraging the creative economy to develop their heritage and establish a recognizable identity, thereby increasing their competitiveness in the global market. However, challenges remain in the implementation of these initiatives, including poor financial resource management and insufficient use of local assets, which may limit success. Creative industries play a key role in strengthening social cohesion within local communities. They encourage community engagement, instill a sense of pride and contribute to the creation of stronger, interconnected communities.. Tourism strengthens the role of creative industries by connecting cultural sectors with new markets, creating business opportunities and enabling the stabilization of the creative sector. The synergy between tourism and cultural initiatives, aside from offering appealing concepts to attract tourists, can greatly influence the quality of life for local residents and ultimately contribute to the sustainable development of destinations.

Creativity as the key to destination competitiveness

Creative industries hold significant potential in promoting local recognition and destination branding. Initiatives such as open studios provide tourists with authentic experiences, fostering a deeper connection with local culture. A notable example is the city of Den Bosch in the Netherlands, which has built a distinctive identity through creativity and experiences based on the life of painter Hieronymus Bosch, demonstrating how creativity can boost a destination's long-term tourism potential. This approach not only attracts tourists but also positions the city as a cultural destination for the long run.

Clearly defined themes when presenting a destination allow for the creation of strong emotional responses, resulting not only in strengthening tourists' emotional attachment but also in promoting the long-term sustainability of visits. Examples such as "Light Night" events, which transform the appearance and experience of a city and the light and sound art installations on Neville Street in Newcastle (UK), illustrate how such approaches can revitalize public spaces and make them more attractive to visitors. Art in all its forms, whether visual, auditory, or movement-based can evoke emotions by engaging all senses, which is crucial for creating deeper experiences. Such experiences can contribute to prolonging tourists' stays and increasing their engagement while simultaneously reflecting the principles of sustainability and the cultural values of the destination.

Cultural heritage as a sustainable identity

Creative initiatives can attract tourists, increase revenue for local businesses and reduce migration while enabling space regeneration, an example of this is the former "Tetley" brewery in Leeds, which has been transformed into an art gallery. Creative tourism leverages cultural heritage to create authentic experiences, strengthening local identity and promoting sustainability by connecting people with architectural and natural heritage. Jelinčić and Mansfeld (2019) emphasize its potential in heritage revitalization, while Henriques and Elias (2022) emphasize the balance between authenticity and innovation. Examples such as the Bullas Wine Road (Carrasco et al., 2019) and the Dafen Oil Painting Village (Yuan and Liu, 2017) show how the integration of creative industries with cultural attractions preserves heritage and promotes rural development. The involvement of local communities in the management of cultural resources, as suggested by Borowiecki et al. (2024), strengthens the link between tradition and innovation, ensuring the long-term protection of heritage. In order to achieve a balance between economic and environmental sustainability, it is crucial to integrate culture as the "fourth pillar" of sustainability into business models (Hawkes, 2001). Developing business models focused on the preservation of cultural heritage and the environment, rather than short-term profit, is a prerequisite for the long-term sustainability of tourist destinations. Creative industries not only contribute to the revitalization of cultural heritage, but also ensure its long-term preservation, providing tourists with deeper and more meaningful experiences.

Innovation and sustainable management

Innovation and creativity play a key role in the long-term sustainability of tourism, as they enable the integration of new technologies and approaches that reduce tourism's negative environmental and social impacts. Smart management and participatory approaches, supported by innovation, help maintain ecological and health standards, which are essential for the sustainable development of tourist destinations (Durman and Nadlifatin, 2024; Syufa'at et al., 2024).

By utilizing green technology and sustainable practices, such as eco-friendly materials and responsible behavior - creative industries can provide innovative solutions that minimize environmental impact while creating economic and social opportunities for local communities. Collaboration between public administrations, associations and local entrepreneurs, as highlighted by Chaterina and Zorrilla (2005) and Graci (2020), is crucial for establishing balanced tourism ecosystems that support heritage conservation and environmental sustainability through innovation.

Collaboration and sector integration for sustainable development - the need for new management approaches

Driven by contemporary trends, creative industries and tourism require innovative management approaches (Borin and Donatu, 2022). Among the key emerging trends are digital opportunities as a significant breakthrough in all aspects, the development of targeted audiences, sustainability and stronger connections between creative industries and other sectors. This alignment emphasizes

how creative industries and tourism can jointly contribute to sustainable development, fostering economic growth while preserving culture and the local authenticity of destinations.

Duxbury and Richards (2019) argue that the synergy between tourism and creativity is fueled by the increasing pressures of mass tourism and emerges from the search for alternative development models, highlighting the need for intersectoral collaboration and new management models. This synergy can be complementary or competitive, emphasizing the importance of participatory cultures and sectoral cooperation for sustainable development. A characteristic of creative industries is that they encourage collaboration with local businesses, primarily supporting the development of small enterprises and community engagement. Creative industries enrich the tourism offer with unique and authentic experiences, while tourism, understood as an active contribution to the cultural system, goes beyond traditional consumer activities. The benefits of such integration include the creation of innovative products, the establishment of an emotional connection between tourists and destinations and increased cultural and artistic recognition. Successful integration requires the adoption of a new mindset that recognizes tourism as a creative and sustainable component of cultural development. Successful projects emerge through stakeholder collaboration, the integration of creative industries into local communities and the promotion of long-term development.

Despite uneven progress in the implementation of sustainable practices, significant strides have been made. For example, Opera North in Leeds applies sustainability initiatives, while smaller grassroots projects link creative industries with ecological goals. Initiatives like education on reducing carbon footprints in gastronomy promote environmentally responsible behavior,. In combination with tourism, sustainable business models in creative industries create new opportunities, employment and environmentally friendly practices, strengthening the economic resilience of destinations.

Integrating technology and creative industries in sustainable tourism

The rapid development of digital platforms and e-commerce has led to the transformation of creative industries, expanding business opportunities and redefining the process of content creation and distribution (UNCTAD, 2024). AI and digitization have improved cost efficiency and global market reach, while Industry 4.0 technologies (augmented reality/AR, virtual reality/VR and the Internet of Things/IoT) have opened up new opportunities for the distribution of creative products (Adnan et al., 2024; Gursoy et al., 2022; Liu 2022; Martins et al., 2022). One example of adaptation to new contemporary forms is the virtual 3D conference where personalized avatars enable international dialogue and exchange of ideas in virtual spaces of one's choice (Root et al., 2021). There is also the possibility of accessing cultural heritage sites through virtual diving experiences for underwater archeology (Bruno et al., 2020). The Ixel Online 2020 event pioneered the virtual 3D format in the fashion industry, connecting sectors deeply rooted in visual codes and dependent on cutting-edge technologies. Such examples highlight how technology enables creative industries to maintain their relevance and functionality even during crises, thereby contributing to the

sustainable development of tourism. Collaboration between tourism, creative industries and the public-private sector is essential for leveraging the benefits of these technologies.

Green tourism and creative industries

Creative initiatives are increasingly adopting environmentally friendly practices, including the use of sustainable materials and energy-efficient methods, significantly reducing the negative impact of tourism on the environment. Additionally, educating tourists about sustainable practices and encouraging responsible behavior contributes to the preservation of natural resources raises environmental awareness and strengthens local identities, allowing communities to highlight and showcase their unique cultural values and narratives. According to Durman and Nadlifatin (2024), green innovation provides a long-term strategy to address environmental challenges and promote sustainability in tourism. Cultural and creative industries contribute to the spread of ecological values through their products, educational programs and cooperation with other sectors, including tourism (Papadaki, 2024). encouraging responsible resource management. Duxbury, Carvalho and Albino (2021) emphasize that the integration of creative industries into tourism development strategies can improve the attractiveness of destinations and support long-term sustainability.

Transformation of rural communities through creative industries

Rural and non-urban areas have underutilized potential for the development of sustainable tourism (Bakasu et al., 2021; Borowiecki et al., 2024). Creativity plays an essential role in the development of sustainable cities and villages, contributing to the preservation of cultural identity and ecological balance (Zhang et al., 2021). In this context, cooperation between small businesses, the public sector and local communities is essential for successfully integrating sustainable practices into business models (Zhang et al., 2021). Creative industries can act as a driving force for the transformation of rural communities, improving their image and enriching the tourism offer through initiatives such as murals, art installations and green villages (Siswanto et al., 2018; Wu et al., 2021; Meyer et al., 2022). By integrating culture into sustainability frameworks, tourism destinations can ensure the preservation of cultural heritage for long-term prosperity while maintaining ecological balance.

Social entrepreneurship and support for small entrepreneurs

Social entrepreneurship plays a key role in addressing various social challenges, including healthcare, education and community empowerment, often within the constraints of political and infrastructural limitations (Azhana et al., 2024). Micro-entrepreneurs in creative tourism, particularly in remote areas, draw inspiration from local traditions and specific cultural elements, enabling them to differentiate their offerings and create authentic experiences (Duxbury, Silva and Castro, 2019). Their active involvement in the community and environment is essential for shaping innovative tourism experiences, where local networks and cultural context play a crucial role (Bakas et al., 2021). Supporting micro-entrepreneurs in creative tourism can significantly enhance local engagement, contributing to the development of sustainable tourism that reflects authentic

cultural values. The role of women entrepreneurs is particularly noteworthy, as they are strongly influenced by cultural contexts and are key to developing sustainable entrepreneurship in creative industries (Pramono et al., 2024). Creative industries open new opportunities for small entrepreneurs, especially through the production of souvenirs and products based on local traditions. This synergistic relationship between creative industries and tourism can significantly contribute to sustainable development, but systematic support is necessary to overcome the financial and operational challenges faced by small entrepreneurs.

Future relations between creative industries and tourism

The relationship between creative industries and tourism is moving toward greater integration and the creation of additional synergies. The development of new technologies will be crucial for presenting and curating cultural content, enhancing the tourist experience and expanding the reach of creative industries. Despite the possible shift of tourism toward greener and more digital directions, creativity remains the foundation of further development. However, appropriate management and support are necessary to fully realize the potential of creative industries for sustainable economic growth and social well-being. The growing awareness of sustainability in the tourism sector has led to an increase in initiatives aimed at supporting creative tourism as a means of fostering local development and inclusivity. recognizing the potential of these industries to generate both economic and cultural value while respecting the environment and local traditions (UNCTAD, 2024). By integrating sustainability principles, creative tourism can help mitigate the negative effects of mass tourism and promote the regeneration of local communities. If tourism and the creative economy are developed with a focus on sustainability, they will become more resilient to global challenges such as climate change and economic crises, ensuring stable growth and prosperity for future generations. Through collaboration with all stakeholders, respect for cultural heritage, uniqueness, authenticity and thoughtful policy development, creative tourism has the potential to become a cornerstone of sustainable tourism on a global scale.

3.2.4. Future research directions in the creative economy–tourism nexus

Research efforts in this area could be expanded through further investigations into how the integration of creative industries could shape the global tourism industry and contribute to sustainable development models. So far, research has not systematically examined how creative industries can influence tourism policies and destination management in the context of sustainability. Deeper and more radical approaches are needed to create (creative) tourism models that fully align economic interests with the preservation of cultural and environmental resources. To achieve long-term sustainable development goals, it is essential to develop strategies that recognize the potential of creative industries to redefine tourism experiences and reduce tourism's negative impacts. While many initiatives have already begun, further research regarding the interconnection between creative industries and tourism is needed and it should focus on their role in balancing economic, social and environmental sustainability. In line with this, key research

questions that deepen the discussion and shape guidelines for future studies have been proposed, opening space for a more in-depth analysis of challenges and opportunities in this field.

More in-depth research is required to establish a theoretical foundations regarding the interconnection between the creative economy and tourism and to understand how these industries contribute to one another. Understanding these interrelations; what creates synergy, which elements and activities demonstrate their relationship - is crucial in order to identify ways in which these two sectors intertwine. The complexity of these concepts requires an in-depth and detailed analysis of individual relationships.

Additionally, it is necessary to determine how tourism contributes to the development of the creative industry and its sub-sectors. Tourism generates funding for cultural projects and events, creates demand for local artists and craftsmen and increases their visibility by creating opportunities for local artists and small entrepreneurs. Therefore, it is crucial to examine each sub-sector of the creative industries to precisely assess its contribution and understand their mutual complementarity, thereby opening new opportunities for a synergic development of tourism and of the creative sector.

Which types of cultural and creative events and activities contribute the most to attracting tourists to a destination? It is vital to identify the key activities and events that shape a destination's identity, as this is crucial for developing long-term sustainable tourism strategies. This enables a clearer allocation of resources and the development of strategies that enhance economic, social and cultural benefits while emphasizing authenticity and the long-term sustainability of the destination. Festivals, gastro-cultural events, interactive workshops and other creative formats strengthen the local identity and creative offers in a destination, thereby attracting target audiences.

How does creativity contribute to innovations in tourism and how can such solutions enhance destination competitiveness and long-term development? Creativity-driven innovations enable better integration of cultural and creative elements into tourism offers and increase a destination's competitiveness by tailoring creative content to modern visitor expectations. New technologies, such as virtual and augmented reality for interactive cultural heritage exploration, digital platforms that personalize experiences, artistic installations and creative events that differentiate destinations and attract diverse tourist profiles, are key challenges for future research and emerging topics gaining increasing attention.

What changes in business approaches can promote more sustainable practices within the industry? This question opens new issues and serves as a proposal for future research.

How can the connection between the creative economy and tourism impact sustainable development and the broader economy? This is a key question encompassing diverse perspectives

and deserves special attention due to its complexity. It seeks to evaluate how this synergy contributes to long-term development by defining the most crucial forms of impact and providing detailed theoretical and empirical foundations. Key topics include cultural heritage preservation, local economic stimulation, green business, enriching tourist experiences, community engagement, innovation and diversification, education and awareness, promotion of local identities, networking and collaboration. Each element deserves focused analysis.

Seasonality is a major challenge for most destinations due to its negative implications, such as unstable revenues, infrastructure overload, employment fluctuations and financial difficulties for local businesses. How can creativity provide a solution? The development of creative tourism, such as art workshops, design initiatives and gastronomic experiences, can encourage tourist visits outside peak seasons, reducing dependency on seasonal revenues. Researching these questions can help shape policies that support innovative and creative tourism content, allowing for a more balanced distribution of income and better utilization of tourism resources.

How can creative industries be integrated with business models that support ecological sustainability in tourism? What specific strategies or initiatives are most important for balancing economic growth with environmental goals in tourism? By defining creative projects and (artistic) initiatives, awareness can be raised about the need for ecologically sustainable creative projects. While most sustainable tourism models focus on reducing negative impacts, they rarely consider how tourism can actively contribute to regenerating natural resources and local ecosystems.

Cultural and social sustainability, as well as the role of creative industries as a tool for protecting and promoting local traditions and identities are crucial for their preservation. How important is collaboration in creating new models of creative tourism that ensure that tourism products fully engage all five senses? The importance of multisensory experiences in forming authentic tourism offerings is a key topic that requires further emphasis and research. A strong sense of identity and experience in this format allows tourists to develop deeper connections with destinations, increasing their emotional attachment and encouraging long-term loyalty.

Collaboration between creative entrepreneurs, local artisans and the tourism sector can result in innovative tourism products that preserve and reinterpret cultural heritage rather than commercializing it in a way that leads to a loss of authenticity. Strategic support through financial mechanisms, education and digital tools enhances the visibility and sustainability of creative entrepreneurs in the market. Do small and medium-sized enterprises receive sufficient support and how crucial is this support for the sustainable development of tourism? These questions help in understanding the importance of cooperation for project success and the sustainability of initiatives.

While this research provides a theoretical foundation for discussing the synergy between the creative economy and tourism, empirical evidence is needed to better understand the actual impacts and effects of their interconnection. Future studies should focus on empirically testing sustainability models in creative tourism to determine how it can generate long-term positive effects across all dimensions of sustainability - economic, cultural, social and environmental.
How can creative industries influence the transformation of regional communities, especially in less developed or rural areas? What key factors enable creative tourism to contribute to the stability and long-term sustainability of these communities? What policies or support mechanisms are necessary to ensure a balance between tourism and sustainable development in these areas? Answers to these questions are crucial for understanding the full potential of creative industries. As previously discussed, creative tourism can act as a tool for tourism regeneration, but its long-term success depends on appropriate strategic models, policies and support systems.

What changes in approaches or strategies are necessary for better integration of these sectors in the future? Which policies or initiatives should be prioritized for the further development of sustainable creative tourism? Policies that encourage sustainable practices, involve local communities in decision-making and provide financial incentives for projects that balance economic growth with the preservation of cultural and natural resources are central to this discussion. This segment of research should serve as the foundation for future discussions due to its practical contributions.

4. MEASURING CREATIVE PERFORMANCE - A DELPHI-BASED COMPOSITE INDEX FOR EU ECONOMIES

The Chapter *Measuring creative performance: a Delphi-based composite index for EU economies* addresses the methodological challenges associated with the measurement of the creative economy and the development of a composite index for capturing creative performance across European Union member states.

Researchers in cultural and creative industries consistently emphasize the absence of a unified and standardized methodology for assessing the value of the creative sector. Unlike other economic sectors, cultural and creative industries are characterized by specific features such as artistic value, subjectivity and market heterogeneity, which complicate the application of conventional economic measurement approaches. As a result, the empirical foundation for existing research models remains limited. Scholars in this field further highlight the lack of robust and consistent evaluation methodologies, noting that standard approaches used for other sectors cannot be directly applied without appropriate adaptation.

In this context, the development of a new European Creativity Index (EU-CEI) responds to the identified gap in detailed and methodologically consistent statistical analyses, aligned with OECD, EU and EC-JRC (2008) guidelines. Such approaches remain relatively rare in existing literature and previous index constructions, as also confirmed by Mikulić and Jelušić (2025). Inadequately constructed composite indices may lead to misleading policy implications; therefore, the development of transparent, systematic and empirically grounded validation procedures is essential, yet often insufficiently addressed in previous research. A key methodological challenge in this process relates to the subjectivity involved in the selection of indicators and variables, which can significantly affect results and their interpretation. To address this limitation, particular attention is given to a transparent, evidence-based selection of variables and a rigorous assessment of their relevance, thereby reducing subjectivity and improving the reliability and validity of the measurement framework.

The primary purpose of this chapter is to develop a theoretically grounded and methodologically robust European Creativity Index (EU-CEI), which integrates economic, cultural, social and institutional dimensions of creative processes and industries. Given the multidimensional and interdisciplinary nature of creativity, the research aims to identify and operationalize a set of indicators that enable the quantitative assessment of creativity across countries and over time.

The specific research objectives include: (i) analysing existing creativity and creative economy indices in order to establish a conceptual and methodological foundation for the development of a new index; (ii) developing a theoretical framework encompassing key dimensions of creativity,

including human capital, creative industries, cultural infrastructure, innovation and social openness; (iii) selecting variables and determining weights through the Delphi method to achieve expert consensus on the relevance of indicators; and (iv) constructing and validating the index through an iterative process incorporating expert evaluation and refinement of the indicator set. Therefore, this chapter contributes to the development of a comprehensive methodological tool for measuring creative performance within the European context and is structured to ensure a clear and systematic progression from theoretical foundations to empirical operationalization.

Section 4.1 presents the research methodology in detail, describing the overall research design. Section 4.2 presents the analysis and research results, which are followed by the development of the conceptual framework defining the key dimensions of creativity and establishing the theoretical basis for the construction of the index. Building on this framework, the subsequent section focuses on the index construction process.

This chapter contributes to the ongoing methodological discourse on measuring the creative economy by proposing a structured and transparent approach to the operationalization of creativity as a multidimensional and policy-relevant concept.

4.1. Research methodology for the construction of the composite index

Creativity is a multidimensional and often ambiguous concept. As such, the indices used to measure it must be continuously updated and refined (Castro-Higueras and de Aguilera-Moyano, 2018). The growing role of creativity, cultural and creative industries and the creative economy emphasizes the increasing interest by researchers, policymakers and territorial administrations in finding reliable ways to measure and evaluate the creativity of a given area.

An indicator is a quantitative or qualitative measure derived from a set of observed facts that can reveal the relative positions (e.g., countries) in a given domain. When assessed at regular intervals, an indicator can show the direction of changes among different units and over time (OECD/European Union/EC-JRC, 2008).

The development of the European Creativity Index (EU-CEI) is presented through a stepwise approach, following OECD guidelines for composite indicator construction and ensuring transparency, consistency and methodological robustness. Each step of the construction process is systematically explained, from indicator selection and normalization to weighting and aggregation. The resulting European Creativity Index (EU-CEI) represents a multidimensional analytical tool for assessing creative capacities and potential across countries and contexts.

This methodological approach enabled the development of an index that is theoretically grounded and aligned with contemporary conceptualizations of creativity. The methodological steps in constructing the European Creativity Index (OECD/European Union/EC-JRC, 2008; Florida, 2002; Nardo et al., 2005; Mendola and Volo, 2017) are as follows:

Phase 1: Conceptual framework – theoretical foundations and dimensional structure

1. **Theoretical foundation:** a **conceptual framework** should be developed to provide a basis for selecting and combining individual indicators into a meaningful composite measure, following the principle of fitness for purpose. The theoretical framework was developed through a review of existing literature on composite indices, from which the most commonly used domains were identified, as previously discussed in the literature (Mikulić and Jelušić, 2025; Jelinčić, 2021). This process provided the initial structure for the questionnaire, which served as the basis for the Delphi method.

Phase 2: Index construction – methodological steps and procedures

2. **Selection of variables/data**

   To ensure model validity, the **Delphi method** was applied, using a structured consultative process with ten experts to achieve consensus on the relevance and weighting of indicators. The Delphi methodology applied in this research is based on the approach proposed by Castro Higueras and de Aguilera Moyano (2018).
   The selection of experts followed a purposive sampling approach (Patton, 2002), which is widely applied in Delphi studies where participants are chosen based on their expertise rather than random selection. Experts were identified according to their knowledge and experience in the field of creative economy and tourism, in line with established Delphi methodology requirements (Hsu and Sandford, 2007; Okoli and Pawlowski, 2004). Open-ended questions allowed for the consideration of new variables that could improve the indicator system. Based on the feedback collected, the second round involved a final revision, resulting in the adoption of a final set of indicators that best reflect the multidimensional nature of creativity. Appendix 2 provides the questionnaire used in the first round of the Delphi method, aimed at identifying creativity indicators within an instrumental research approach.

   The model was developed through two evaluation rounds (Round 1 – June 2023; Round 2 – September 2023), during which experts quantified their opinions on proposed indicators, evaluating their acceptability and weight (Appendices 3 and 4).

The **Delphi method** is a qualitative research technique aimed at obtaining a more or less consensual but stable opinion from a group of experts on a specific topic, where the collective opinion is considered more valuable than individual viewpoints. The interaction of different opinions is achieved through statistical analysis of responses. Given the specific characteristics of this method, it ensures that all expert opinions are taken into account in the final result. The anonymity of participants and the structured process with controlled feedback prevent communication "noise" and reduce the likelihood of individuals conforming their opinions to those of other participants.

The research involves experts and analysts who are either interested in the research topic or directly affected by it; in other words, individuals capable of providing relevant and professional contributions. For the purposes of this research, a group of respondents from the academic and professional sectors was selected. To ensure methodological validity, the optimal number of experts in this type of research ranges between seven and ten participants. Special thanks are due to the group of experts who participated in developing this research. Their level of engagement in completing the questionnaire was very high.

Table 9. List of experts participating in the research (Delphi method)

Name	***Position and connection with the creative and cultural industries***
Terry Flew	Deputy Head of School (Research), School of Art, Communication and English, Professor of Digital Communication and Culture, The University of Sydney Australian Research Council (ARC) Laureate Fellow, 2024-2028 Faculty of Arts and Social Sciences | Media and Communication | Digital Cultures major
Greg Hearn	Lead Researcher: Advanced Robotics for Manufacturing Hub https://armhub.com.au/ Chief Investigator: ARC Australian Cobots Training Centre Editor: The Future of Creative Work: Creativity and Digital Disruption
Elisabetta Lazzaro	Full Professor of Creative and Cultural Industries Management/Head of Arts & Creative Ecosystems research & innovation cluster Business School for the Creative Industries, University for the Creative Arts, Farnham GU9 7DS, UK
Melanie Kay Smith	Teaching courses on cultural and creative industries since 2000 Budapest Business University, Hungary and University of Tartu, Parnu College
Emir Džanić	KE at project Create in Izmir Cambridge Innovative System Solutions Ltd.

Name	***Position and connection with the creative and cultural industries***
Hubert Escaith	Independent; University of Liege, HEC Management School, Students; World Trade Organization (WTO) Consultant involved in UNCTAD working group on Creative economy Former Chief Statistician,World Trade Organization
Lydia Deloumeaux	Statistician, analyst in culture statistics and industry UNESCO Institute for Statistics Graphic. Associate Programme Specialist / Statistician, Culture Statistics.
Simona Goldstein	Experienced Expert. Consultant, Lecturer, Trainer and Evaluator in the area of creative industries and NGO sector. iDEMO Institute for Democracy Goldstein, S. (2016). Poduzetništvo u kreativnim industrijama.
Yi Wang	Lecturer in the School of Communication at Shenzhen Polytechnic University, specializing in cultural industries research.
Damir Novotny	Professor of Economics, University Algebra Bernays T&MC Group - Top Management Consultants Novotny, D. (2015). Kreativna ekonomija: Kako iskoristiti kapital ljudskog uma kao pokretača ekonomskog rasta u 21. stoljeću?.

Source: Author's own elaboration

After defining the key variables, relevant *secondary data were identified, collected and systematically processed*, followed by the construction of the composite index.

a) The selected countries were: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Sweden, Switzerland, UK.
b) The data used in this research are based on **secondary sources**, with the main sources being statistical data from UNCTAD, Eurostat and the World Tourism Organization (WTO), among others. The data refer to all EU member states and cover the period from 2010 to 2022; however, due to data availability constraints and limitations in the coverage of key variables required for the construction of the composite index, the operational dataset used for index development is restricted to the period **2011–2019** in order to ensure consistency, comparability and completeness across all indicators.

   The Python programming language was used for index construction due to its flexibility, reliability and ability to automate the processing of large datasets.

Python allows full customization of the analytical process to the specificities of the research, including the development of custom functions and algorithms for index calculation, ensuring greater transparency, reproducibility and control over each stage of analysis.

3. Imputation of missing data: Different approaches to imputing missing values should be considered. Extreme values should be examined, as they may serve as unintended reference points.
4. Multivariate analysis: Exploratory analysis should be conducted to examine the overall structure of the indicators, assess dataset suitability and justify methodological decisions such as weighting and aggregation.
5. Normalization: Indicators should be normalized to ensure comparability. Attention must be given to extreme values and skewed/asymmetric data.
6. Weighting and aggregation: Indicators should be aggregated and weighted according to the theoretical framework. Correlation and substitutability among indicators should be addressed or explicitly acknowledged as features of the phenomenon.
7. Robustness and sensitivity: There should be an analysis of the robustness of the composite measure regarding the inclusion/exclusion of specific indicators, normalization schemes, imputation methods, weighting choices and aggregation methods.
8. Return to raw data: Composite indicators should be transparent and decomposable into their underlying indicators or values.
9. Links to other variables: There should be an attempt to link the composite measure with other published indicators and identify relationships using regressions.
10. Presentation and visualization: Composite indicators can be visualized in multiple ways, affecting interpretation.

Following the presentation of the research methodology, the analysis proceeds from the methodological design to its operationalization. First, the conceptual framework is developed, defining the key dimensions of creativity and providing the theoretical basis for the index construction. This is followed by the index construction phase, which explains how the conceptual model is translated into a measurable composite indicator in line with established methodological standards.

4.2. Analysis and research results

Due to the methodological complexity of measuring creative performance, the section *Analysis and research results* is structured arround two interrelated sub-chapters. This division reflects the sequential logic of index development and ensures transparency in both the conceptual and operational stages of measurement.

The first sub-chapter (4.2.1), *Conceptual framework: theoretical foundations and dimensional structure of the European Creativity Index*, establishes the theoretical basis of the index construction. It defines the conceptual framework that underpins the European Creativity Index (EU-CEI), clarifying its purpose, structure and the causal relationships between indicators and sub-dimensions. By linking the index to broader social and economic development perspectives, this stage provides the analytical foundation for the measurement approach and ensures the interpretability and theoretical validity of the composite construct.

The second sub-chapter (4.2.2), *Index construction: methodological steps and procedure*, builds on the established conceptual framework by presenting the operational process of index development. Following OECD/European Union/EC-JRC (2008) guidelines, this section details the methodological procedures used to construct the composite index, including data selection, standardisation, weighting and aggregation techniques. The index construction process is presented in a structured, step-by-step manner, ensuring methodological transparency and replicability.

4.2.1. Conceptual framework: theoretical foundations and dimensional structure of the European Creativity Index

The first step in constructing the index is to **define the conceptual framework**, as it determines the purpose and structure of measurement. A well-established framework ensures clarity in the causal relationships between indicators and sub-dimensions, influencing the credibility and interpretability of the final result. The theoretical framework links the index to social and economic needs and forms the basis for subsequent methodological decisions (OECD/European Union/EC-JRC, 2008; Florida, 2002).

Creativity, viewed through the multidimensional lens of economic, cultural and social dimensions, acts as a catalyst for tourism development through several key mechanisms. First, high levels of human capital, education and expertise in creative industries enable the creation of innovative cultural and creative products and stimulate entrepreneurship within the sector. Second, cultural infrastructure and citizen participation in cultural activities increase the attractiveness of a destination for tourists, drawing visitors and extending their stays. Third, social openness and tolerance create a fertile environment for the exchange of ideas, stimulating innovation and

creative initiatives that further enrich the tourism offering (Florida, 2002; Landry and Hyams, 2012; Jacobs, 1961; Richards, 2011; Pratt, 2008).

Empirical literature also emphasizes the role of cultural and creative events, festivals and innovative cultural products in increasing tourism demand, overnight stays and tourism's share of GDP (Richards, 2011, 2018, 2020; KEA European Affairs, 2015). The conceptual model includes three complementary dimensions of creative potential: enabling environment, creative base and cultural vibrancy (Kregzdaite et al., 2020; Boix-Domènech and Rausell-Köster, 2018). Based on theoretical insights and empirical literature analysis, there is a clear need for operationalizing creative potential in a way that integrates all three dimensions. Such operationalization forms the foundation for constructing the EU-CEI index, enabling quantitative testing of the creative sector's role in tourism performance. The index will combine indicators of education and skills in creative sectors, availability of and participation in cultural activities, innovation, intellectual property registrations and societal openness and tolerance.

Creativity is treated as a multidimensional phenomenon encompassing economic, cultural and social dimensions. The economic dimension includes innovations, technological advancement and the development of new products, while the cultural dimension involves artistic production, cultural participation and the development of cultural resources. The social dimension covers tolerance, openness and social cohesion, which facilitate the creation and exchange of ideas (Jacobs, 1961; Florida, 2002; Landry and Hyams, 2012). Key elements of creative potential include human capital, education, cultural infrastructure, innovation, cultural participation, societal openness and the institutional framework and policies supporting creative industries (Boix-Domènech and Rausell-Köster, 2018; Kregzdaite et al., 2020).
Human capital enables the generation and implementation of new ideas, while cultural infrastructure and cultural participation increase the visibility of the creative sector and attract talent. Openness and tolerance foster social pluralism that stimulates innovation, whereas the institutional framework, including public investment in culture, governance efficiency and transparency, further strengthens creative potential.

Empirical literature suggests that creative capacities - including education, innovation and cultural participation - can act as catalysts for tourism development through several channels: enhancing the cultural and innovative offerings of a destination, attracting talented individuals, strengthening the cultural identity of the destination and generating economic impacts in tourism (Richards, 2011; Pratt, 2008; Florida, 2002).

In empirical studies, creativity has been measured using various indicators and indices, including the Global Creativity Index (Florida et al., 2015), the Cultural and Creative Industries Index (Kregzdaite et al., 2020) and the European 3T Creativity Index (Alexy et al., 2018). These indices combine measures of human capital, innovation and cultural infrastructure but rarely integrate

social dimensions such as openness, tolerance and participation in cultural activities. The differences among these indices highlight gaps in existing research, especially when the goal is to analyze the effects of creativity on the tourism economy.

Based on the conducted literature review and the objectives of this research, 34 creativity indices applied in different geographical contexts were collected, allowing for the identification of three sub-dimensions inseparable from creativity (according to Mikulić and Jelušić, 2025). The operationalization of creativity through composite indices is typically structured around three complementary dimensions:

1. Creative capacity as a foundational resource and infrastructure of the creative economy, represented in the **Enabling environment module**, which includes human capital, education, openness, living conditions and governance quality;
2. Creative resources, economic dynamics and innovation as direct outcomes, combined in the **Creative base module**, covering employment in creative sectors, cultural production and innovation;
3. Cultural vitality, considered an integral part of a society's creative potential, as it fosters the development and expression of unique perspectives and ideas while promoting social cohesion and diversity represented in the **Cultural vibrancy module** which reflects the availability of cultural offerings, cultural events, public participation and tourist attractiveness.

This structured operationalization allows for systematic monitoring of creative potential and its potential linkage to tourism performance.

A systematic review of the most relevant indices helped in formulating the proposed index, which enables the assessment of a region's creative potential and the identification of elements contributing to its development. The general criteria adopted for the selection, adaptation and construction of indicators were relevance, reliability of data sources and the possibility of constructing panel data for EU economies.

Based on an extensive literature review, the following set of domains is proposed. The first domain indexes creative capacity as a fundamental resource and infrastructure of the creative economy, public sector and policies through the ***Enabling environment*** module. The enabling environment is considered crucial for fostering a society's creative potential, providing individuals and enterprises with the conditions and resources necessary for the development and implementation of new ideas and innovations. An environment that facilitates and creates the conditions required for creative development can also encourage collaboration and the exchange of ideas among individuals and institutions, further stimulating creativity and innovation.

Human capital is regarded as a key factor in creative production, as it enables individuals to develop and implement new ideas and solutions (Florida, 2002). Scientific talent reflects the availability of human capital and expertise necessary to foster innovation and technological advancement. Human capital is thus seen as a critical element of creative production, allowing individuals to generate and implement new ideas and solutions. In the context of the European Creativity Index, human capital measures may include educational attainment, years of experience in a particular field and levels of training or certification within a specific creative sector.

The **education dimension** focuses on the relationship between education, culture and creativity as a catalyst for talent development within cultural and creative sectors. It consists of indicators providing information on formal or accredited advanced education and courses, mostly publicly available.

A **creative place** must be open and tolerant toward people from diverse cultural and social backgrounds (Florida, 2002; Landry and Hyams, 2012). A diverse environment fosters the generation and flow of ideas, facilitates interaction and communication and attracts talent. Openness reflects the ability of individuals and organizations to embrace different perspectives, experiment with new ideas and approaches and build networks and collaborations that promote innovation and creativity.

According to Florida (2002), the core group of individuals forming the so-called creative class tends to settle and concentrate in places that provide an atmosphere of diversity, authenticity and tolerance, aligned with their lifestyle. Numerous studies, especially in economics and urban studies have examined the relationship between openness and diversity in society and its creativity and innovativeness. Researchers have long linked the presence of these elements in society with its level of creativity - from urbanist Jane Jacobs (1961), one of the first to propose diversity and the exchange of ideas as sources of urban innovation, to Richard Florida (2002), who connects the creative environment with concepts such as diversity, tolerance and openness, concluding that a tolerant environment attracts creative talent and capital that drive economic growth.

The **quality of living conditions** in a city or region is essential for well-being, which fosters creativity and the discovery of talent (San Miguel and Herrero-Prieto, 2020). Quality of life, including housing, transportation, healthcare, education and cultural activities - plays a significant role in attracting and retaining talented individuals. Creativity indices measure these factors, linking them to well-being and environmental sustainability, while the OECD monitors well-being indicators in this context.

The **level of governance** in a society reflects its ability to promote creativity and innovation by enabling individuals and organizations to participate in creative activities (San Miguel and Herrero-Prieto, 2020). Indicators such as political stability and transparency are crucial for a

society's creative potential. Trust is essential for collaboration and innovation and local authorities play a key role in funding cultural initiatives, which is reflected in creativity indices. Public funding of culture is included in various indices, particularly in the Hong Kong Creativity Index, the European Creativity Index and the Creative City Index.

The **accessibility dimension** highlights infrastructural diversity and development, which are key to fostering creativity. It ensures equal opportunities for accessing resources, building networks and participating in creative activities. Creativity indices measure accessibility through education, income inequality and access to technology and infrastructure, all of which influence a society's creative potential and its capacity for individuals to engage in the creation of new ideas.

Table 10. Overview of indicators for Module 1 – Enabling environment

Dimension	***Sub-dimension***	***Indicator***
ENABLING ENVIRONMENT		
1. HUMAN CAPITAL	**Education**	Number of higher education institutions Higher education graduates Higher education graduates in ICT Higher education graduates in arts and humanities Public expenditure on education New doctoral graduates
	Knowledge intensive resources	Human resources in science and technology (HRST) R&D personnel and researchers High-tech industry and knowledge-intensive services
2. OPENNESS AND TOLERANCE	**Openness and tolerance**	Attitude of the population toward foreign visitors Foreign born population Mobile graduates from abroad Foreign tertiary education graduates Foreign doctoral students as a % of all doctoral students Employment rate of foreigners
3. LIVABILITY AND AMENITIES	**Livability and amenities**	Purchasing power parities, price level indices and real expenditures Crime, violence or vandalism in the area Health care expenditure Experienced well being score in Happy Planet Index Household income Employment rate Number of years of life expectancy Young population from 5 to 34 years

Dimension	***Sub-dimension***	***Indicator***
4. GOVERNANCE	**Governance**	Country capacity to retain talent Country capacity to attract talent Voice and accountability Political stability and absence of violence/terrorism Government effectiveness Regulatory quality Rule of law Control of corruption Direct public expenditure on culture Capacity for innovation Gross domestic spending on R&D
5. ACCESSIBILITY	**Accessibility**	Passenger flights Accessibility by air Accessibility by road Accessibility by rail

Source: Author's own elaboration

The second domain of the index monitors creative resources, economic dynamics and innovation through the ***Creative base*** domain. The creative economy and creative industries are considered important drivers of economic growth and innovation, as they foster the development of new products and services, create jobs, generate income and exports and contribute to both economic and social development.

The analysis of the creative sector raises questions that encompass most of the sector's fundamental principles: the assessment of cultural and economic value, the contradiction between economically inefficient cultural industries and commercially successful creative industries and their impact on economic growth and national well-being (Kregzdaite et al., 2020).

The economic value of cultural and creative industries can be expressed through clearly defined standards (market prices or other monetary estimates). However, although these estimates arise from market processes, they are difficult to predict. The process of determining *cultural value* is much more subjective than assessing *economic value* and is reflected in specific artistic concepts or broader social and experiential aspects (Throsby, 2001).

Creative occupations, which include professions in industries such as music, film and design, are considered key to fostering innovation and creativity because they provide the human capital and expertise necessary for developing new ideas and technologies. The level of creative occupations in society reflects the availability of the expertise needed to drive innovation and economic growth

(Galian et al., 2021). The classification of these occupations follows the ISCO-08 standard, which defines creative occupations as those requiring a high degree of creativity and cultural knowledge.

Employment in creative industries contributes to economic growth and innovation while exerting significant social and cultural influence. Creative industries produce unique goods and services that continuously push the boundaries of possibility, playing a key role in shaping social values and cultural diversity (Boix-Domènech and Rausell-Köster, 2018). These industries also promote a country's soft power, using art and culture to enhance its global perception.

Creative enterprises are crucial for developing creative ideas and technologies, as they enable the commercialization of new products. The level of entrepreneurial activity in society reflects the ability of organizations to take risks and create new economic opportunities (Galian et al., 2021). Monitoring the number of employees in new creative enterprises helps assess the sector's activity and its economic impact.

Creative trade (the output of creative industries) contributes to economic growth, with services occupying the dominant share. A high share of creative goods and services exports indicates the competitiveness of the creative sector, which stimulates growth in other sectors and enhances the country's global image. Monitoring this indicator assists in developing policies that support the creative sector and improve competitiveness in global markets.

The **turnover of creative industries** indicator is used to assess the growth of the sector and its global influence. High turnover suggests a competitive industry capable of attracting investment and talent, thereby contributing to growth and employment.

The **value added by creative industries** measures the sector's economic contribution, providing a more accurate estimate of its economic value than its share of GDP. High value added (GVA) indicates sectoral productivity, job creation and the stimulation of innovation - all contributing to overall economic growth.

Intellectual property and innovation, such as ICT patents, are identified using IPC codes across 13 areas, including high-speed networks, mobile communications, security, sensors, high-performance computing and data storage. This indicator measures the number of patent applications filed with the European Patent Office, including both direct European applications and international applications designating European protection.

Community design applications provide legal protection for designs within the EU, encouraging investment in innovation, collaboration among designers and facilitating cross-border trade in design products. This indicator measures the number of registered designs in the Community Design system, helping protect products across the EU while offering insight into the level of innovation and the effectiveness of design protection.

Table 11. Overview of Indicators for Module 2 – Creative base

Dimension	*Sub-dimension*	*Indicator*
CREATIVE BASE		
6. CREATIVE RESOURCES	**Creative occupations**	Number of people employed in creative occupations
	Creative employment	Share of employment in creative industries
	Creative enterprises	Number of creative enterprises
	Newly created enterprises	Number of persons employed in newly created creative enterprises
7. CREATIVE INDUSTRY OUTPUT	**Creative trade**	Creative goods and services export
	Turnover	Turnover in creative industries
	Value added	Gross value added at basic prices
8. INTELLECTUAL PROPERTY AND INNOVATION	**ICT patent application**	Patent applications to the european patent office
	Community design applications	Community design applications

Source: Author's own elaboration

Cultural vibrancy, as the third module, is considered a key component of a society's creative potential, as it fosters the development and expression of unique perspectives and ideas while promoting social cohesion and diversity. Modern societies recognize culture as a foundation of economic and social development and overall well-being (KEA European Affairs, 2015).

A vibrant cultural scene can also attract creative individuals and enterprises, contributing to the growth of the creative industries and the broader economy. **Cultural spaces and facilities** provide essential infrastructure for artists and cultural practitioners, enabling them to create and showcase their work while engaging the public in cultural activities. Zukin (2010) emphasizes that cultural assets, such as museums, now serve not only cultural but also economic purposes - such as stimulating tourism and shaping the image of cities. Today, culture is recognized as a "growing economic sector" that generates employment and wealth (European Commission, 2010) and has a strong impact on urban development and investment attractiveness.

As highlighted by Strom (2003) and Miles (2005), cultural assets have become tools for stimulating consumption and redefining urban identities, a phenomenon exemplified by the case of Bilbao (Plaza, 2006).

Cultural participation and attractiveness refer to the frequency with which individuals engage in cultural activities such as exhibitions, concerts and festivals, while cultural attractiveness describes a community's ability to attract visitors and creative individuals. High levels of cultural participation can contribute to the development of creative industries and economic growth, as they reflect support for and engagement in creative expression. According to Greffe (2008), such participation not only sustains cultural expression but can also attract creative talent and enterprises, resulting in significant social and economic impact.

Table 12. Overview of Indicators for Module 3 – Cultural vibrancy

Dimension	*Sub-dimension*	*Indicator*
CULTURAL VIBRANCY		
9. CULTURAL VENUES AND FACILITIES	**Museums**	Number of museums
	Theatres	Number of theatres
	Cinema	Number of cinema seats
	UNESCO cultural sites	Number of world heritage cultural sites
10. CULTURAL PARTICIPATION AND ATTRACTIVENESS	**Museum visitors**	Number of visitors per museum
	Cultural expenditure	Average annual cultural expenditure per household
	Cultural activities attendance	Percentage of persons participating in cultural activities
	Tourist overnight stays	Tourist overnight stays
	Satisfaction with cultural facilities	Percentage of the population that is very satisfied with cultural facilities
	Cultural values	Degree of personal importance of culture

Source: Author's own elaboration

Measuring the creative sector presents a significant challenge due to its complex interdisciplinary nature and the lack of standardized definitions and methodologies. The difficulties authors face when constructing creativity indices are mostly related to various conceptual issues of accuracy, diversity and comparability (Mikulić and Jelušić, 2025).

The selection of key variables is often based on reviews of existing literature and the adoption of indicators from previous studies, which reduces objectivity since experts in the field are rarely consulted. Consensus on the selection of key indicators and their weights is generally not achieved.

The issue of weighting is often avoided by assigning equal weights to all indicators. Such an approach implies that all indicators are considered equally important, but at the same time conceals the lack of statistical and empirical foundations, insufficient understanding of causal relationships between variables, or lack of agreement on alternative weights (Booysen, 2002). The quality of the base variables directly affects the robustness of the composite indicator and well-chosen indicators should accurately capture the phenomenon being measured.

Therefore, the absence of clear metrics, the subjectivity in indicator selection and methodological challenges affect the accuracy and comparability of composite indices, requiring greater transparency in methodology. The rapid development of creative industries and technologies demands the adaptation of data collection methods, while the lack of statistical and methodological tools at national and international levels further complicates comparisons and global assessments. Overall, composite indicators should be viewed as an invitation to explore in more detail the different components that comprise them.

The methodology for calculating future indices should take into account expected changes in the dynamics and interactions between indicators. To ensure a contemporary approach to assessment, it is necessary to examine the uncertainty of the index in relation to the methodological framework, test its sensitivity to the indicators included in the calculation and provide practical guidelines for index improvement. In this sense, the index should be “universal”, enabling the analysis of diverse realities through global comparability; “flexible”, allowing adaptation to different levels (national, regional, urban) and data sources; “efficient”, encompassing as many aspects of the creative phenomenon as possible while maintaining simplicity in data collection; and “unbiased”, with a wide range of dimensions and appropriate weights that support high-quality policy design (Correia and Costa, 2014). All of this, together with a transparent approach to key issues in index construction - such as statistical coherence, ranking sensitivity to normative decisions and the effects of data imputation - is crucial for the overall reliability of the index.

Based on the presented conceptual framework and based on Tables 10, 11 and 12, the initial baseline questionnaire for the Delphi method was constructed and is provided in Appendix 2.

4.2.2. Index construction: methodological steps and procedure

The construction of a composite index represents a complex methodological process that requires clearly defined theoretical assumptions, careful data selection and the application of appropriate statistical methods. Building on the established conceptual framework and the defined set of dimensions that constitute the index construct, the research proceeds to the index construction phase based on the OECD/European Union/EC-JRC, (2008) guidelines. This phase is presented in detail in the following subsections, structured step by step as outlined below.

4.2.2.1. Selection and weighting of variables – The Delphi method

The quality of an index largely depends on the quality of the selected variables. The selection process must be based on the criteria of relevance, measurability, data availability and reliability. Variables must be simple enough to interpret while being strong enough to describe the phenomenon of creativity. Ambiguities in the explanation of variable selection, which are present in many studies, reduce transparency and hinder the comparability of results (OECD/European Union/EC-JRC, 2008).

To develop a broader definition of creativity that connects economic development, cultural vitality and innovation, we begin with Rhodes' 4P model of creativity (1961). Territorial creativity encompasses four key elements of this model, which are interconnected and complementary. The first element relates to products and innovations arising from the creative potential of the community. These products, including cultural content and innovations in industries such as tourism, technology and education, hold economic significance and contribute to social cohesion by creating links among people and different sectors.

The second element of the model concerns creative individuals whose abilities, motivation and education shape creative potential. Educational systems and institutional support are crucial for developing creative skills and their application at the territorial level. Creativity is not only a product but also a process that involves generating and applying new ideas. This process includes collaboration between different sectors, as well as institutional support that enables the emergence and implementation of creative solutions.

The third element concerns the environment, which plays a key role in enabling creativity. A supportive environment - including appropriate infrastructure, political backing and resources - enables individuals and communities to realize their creative potential.

In previous studies, the Delphi method was applied in only a few indices, such as those by Pulido-Fernández et al. (2021), De Figueiredo et al. (2019) and Castro Higueras and de Aguilera Moyano

(2018), mostly after the final design of the index, where experts were not given the opportunity to propose indicators, but only to assign weights to a pre-selected index structure.

Accordingly, the first step in this research, after developing the proposed index structure, enters the phase of restructuring, ranking and evaluating indicators. Linstone and Turoff (1975, p.3) define the Delphi method as "a method of structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem." The significant profiles of the consulted experts allow for the extraction of data representing a synthesis of the opinions of a particular group (Gordon, 1994). Regarding the composition of the panel, although the optimal number of experts for participation in the Delphi technique is not specified, some researchers (Dalkey et al., 1969) suggest a minimum of eight to ten experts, as the error rate per expert decreases significantly up to that number. This is a qualitative research technique aimed at obtaining a more or less consensual yet stable group opinion on a given topic, where greater value is placed on the group opinion than on individual opinions. Interaction between differing views occurs through statistical feedback. Given the characteristics of this method, all expert opinions are considered in the overall response. In the case of this doctoral dissertation, **ten experts** were consulted. Their selection was based on a discretionary sample determined by the researcher's knowledge and judgment, according to criteria that approach the topic from various perspectives: academic, industrial, entrepreneurial, creative, sociological and cultural management. Other important criteria included specialization and prestige in the field of cultural and creative industries. The Delphi analysis process in this research followed the work of Castro Higueras and de Aguilera Moyano (2018).

In the first phase, the questionnaire consisted of 3 modules, 6 open-ended questions and 56 closed-ended questions/proposed variables grouped into 14 sub-dimensions. It was formed based on the literature review. An example of the first base questionnaire is provided in Appendix 2 and the survey was conducted in English. In the open-ended questions, experts could propose new indicators not included in the original design. These proposals were incorporated into the dimensions of the second questionnaire after analysis and exchange of opinions. Closed-ended questions required experts to express their opinions on a series of issues based on predefined responses. The goal of these questions was to assess the process of validating the potential index from the experts' perspective.

First round of Delphi method

In the first round of the Delphi study, indicator-related questions were organised into three broad thematic modules. Each module comprised several dimensions and a total of 56 indicators, which were evaluated by experts using a **scale from 0 (worst rating) to 10 (best rating).** Experts were asked to assess the suitability of each indicator for inclusion in the index. Following the approach proposed by Castro Higueras and de Aguilera Moyano (2018), indicators scoring below 7 were

excluded from further consideration. A score of 10 indicated a high level of appropriateness of the indicator for inclusion. This rating scale enabled the calculation of average scores for each proposed indicator, thereby providing a collective assessment of their relative importance and suitability for inclusion in the index. In addition, each dimension included an open-ended question, allowing experts to suggest additional indicators of success that they considered relevant for potential inclusion in the index. After quantitative analysis conducted in the first part of the report, it was concluded that the following 56 proposed indicators, which received low scores (below 7), represent questionable indicators for inclusion in measurement:

- Population born abroad 5.40;
- Mobile graduates from abroad 6.60;
- Foreign higher-education graduates 6.90;
- Foreign doctoral candidates as % of all doctoral candidates 6.80;
- Employment rate of foreigners 6.40;
- Purchasing power parity, price level indices and real consumption 6.10;
- Crime, violence, or vandalism in the area 5.80;
- Health expenditure as % of GDP 5.70;
- Well-being according to the Happy Planet Index 5.90;
- Household income 6.50;
- Employment rate 6.90;
- Life expectancy 6.60;
- Percentage of young population (aged 5–34) of total population 6.50;
- Passenger flights 6.70;
- Air accessibility 6.90;
- Road accessibility 6.60;
- Rail accessibility 6.20;
- Gross value added at basic prices 6.50;
- Application of community design 6.70;
- Number of cinema seats 6.80;
- Number of museum visitors 6.80;
- Tourist overnight stays 6.90.

Table 13. List of expert-proposed indicators

Dimension	***Indicator***
Module 1. Enabling environment	
A. Human capital *Education and Knowledge-intensive resources*	Number of higher education institutions offering CCI programs Graduates in arts and humanities Trends in STEM education

Dimension	***Indicator***
	Completion and enrollment rates in STEM programs Gender and diversity statistics in STEM fields Measures of creative achievement of artists and other creators with international reputation (awards, sales, reviews, impact, legacy, exhibition/performance, social media, citations, global reach, media coverage, fan base, art market data) Inclusion of arts and culture in curricula (curriculum standards, hours, teacher qualifications, student enrollment)
B. Openness and tolerance	Level of trust towards different population groups (family, neighbor, foreigner, other religion)
C. Liveability and amenities	Level of wages
D. Governance	Status of the artist – policy supporting 1980 Declaration
Module 2. Creative base	
A. Creative resources	Signatory of 2005 UNESCO Convention on Cultural Expressions Number and retention of newly established creative enterprises Number of creative occupations in adjacent industries (tourism, education, leisure) Number of creative occupations in non-creative sectors Multidisciplinary "third spaces" (co-working hubs, incubators, innovation hubs) Percentage of people with creative qualifications regardless of employment
B. Creative industry output	Cultural participation (attendance, non-economic indicators) Trade/export balance
C. Intellectual property and innovation	Adoption of WIPO regulations
Module 3. Cultural vibrancy	
A. Cultural spaces and content	Art galleries and performing arts venues Cultural festivals Broadband internet access

Dimension	***Indicator***
	Night-time economy (bars, restaurants, street theatre, music scene, festivals) Number of electronic arts practitioners Cultural and creative hubs (safe spaces, co-working, impact hubs) Scale, diversity, frequency of independent festivals and events
B. Cultural participation and attractiveness	Cultural participation by degree of urbanization Cultural participation by country of birth

Source: Author's own elaboration

The indicators proposed by the experts represent an important additional contribution to the development of the European Creativity Index, as they enhance its conceptual depth and empirical relevance. Through the Delphi process, experts evaluated the initial indicator set and also suggested new indicators and refinements, thereby strengthening the overall robustness of the framework.

Key methodological insight from expert-generated indicators:

- The expert-generated indicator set indicates a clear shift from a predominantly quantitative measurement logic towards a more multidimensional and context-sensitive conceptualization of creativity. While the initial set of indicators was largely focused on traditional, quantitative variables (e.g. institutional counts, employment figures and output-based metrics), the expert contributions significantly expand the framework by incorporating qualitative, institutional and behavioural dimensions of the creative economy.
- In particular, the inclusion of indicators related to cultural participation, social trust, policy frameworks, creative achievements, inclusiveness and governance structures suggests a broader understanding of creativity as a system embedded in social, cultural and institutional contexts rather than a purely economic output. This reflects a move towards capturing not only the scale of creative activity, but also its quality, accessibility and societal impact.
- Furthermore, expert input introduces a stronger emphasis on soft and enabling factors (such as openness, tolerance, cultural inclusion in education and international cultural policy alignment), which are not typically captured in standard quantitative indices. At the same time, the continued presence of structural and output-based indicators (e.g. enterprises, occupations, IP frameworks, trade flows) ensures that the index retains its empirical measurability.

- This evolution demonstrates a transition towards a more holistic and hybrid index structure, where creativity is conceptualized as the outcome of interactions between economic performance, institutional quality, cultural participation and social conditions, rather than a narrowly defined set of measurable economic variables.

Descriptive statistics – results of the first round of the questionnaire

This section presents the descriptive results of the first questionnaire completed by ten international experts in the field of cultural and creative industries. The aim was to assess the suitability of the proposed indicators for constructing the European Creativity Index and to determine the level of agreement among the experts.

For each of the three main thematic areas – Enabling environment (Module 1), Creative base (Module 2) and Cultural vitality (Module 3) – a set of indicators was developed and evaluated by the experts according to their relevance and appropriateness for inclusion in the index. The analysis was carried out using Excel software.

For each dimension, a table showing the scores for individual indicators is provided. The tables include the following statistical measures:

- N (number of responses): The number of experts who rated a particular indicator. The total number of respondents was 10.
- Minimum value: The lowest score assigned within the sample.
- Maximum value: The highest score assigned within the sample.
- Mean value: The arithmetic average of all scores given for a particular indicator, calculated as the sum of all scores divided by the number of experts who rated the indicator. The rating scale ranged from 0 (lowest score) to 10 (highest score).

After each table of indicators, additional information is provided for the entire dimension:

1. Distribution of responses: The number and percentage of scores for each value on the scale, allowing analysis of opinion distribution and identification of extreme assessments.
2. Overall mean of the dimension: The sum of all mean values of the indicators within the dimension divided by their number. This figure provides insight into the relative importance of each dimension within the overall index framework.

Experts were also given the opportunity to propose additional performance indicators that were not included in the initial set. These suggestions were analyzed and will be reconsidered and evaluated in the second round of the Delphi process in terms of their applicability in the final model.

Following the analysis, an overall average score was calculated for each of the three main dimensions – Enabling Environment, Creative Base and Cultural Vitality. These results allow for a comparison of the relative importance assigned to each dimension and provide a preliminary insight into the structure of the future European Creativity Index.

The overall mean represents the aggregated average value of all indicators across the dimension. The observed inconsistency indicates heterogeneity among indicators, reflecting uneven levels across the sub-components of the dimension. The overall mean is reported in the descriptive statistics tables at the end of each row.

Module 1. Enabling Environment

A. Human capital – Education and knowledge-based resources

Of the eight indicators proposed in this dimension, seven received scores above 7 (ranging from 7.6 to 7.1), while only one indicator achieved a slightly lower average score (6.9), which can still be considered as a positive result for the validation of the European Creativity Index. The overall mean of Dimension A (Human capital – Education and Knowledge-based resources) is 7.32, indicating a relatively high level of human capital across EU economies. However, the variation across individual indicators confirms a degree of heterogeneity in the dimension, suggesting uneven development of its underlying components.

Table 14. Descriptive statistics of indicators across the "Human capital" dimension

A. Human capital				
Indicators	N	Minimum	Maximum	Mean (0-10)
Number of higher education institutions	10	2,0	10,0	7,000
Higher education graduates	10	3,0	10,0	7,200
Higher education graduates in ICT	10	4,0	9,0	6,900
Public expenditure on education PC	10	6,0	9,0	7,500
New doctorate graduates per 1000 of the population aged 25-34	10	3,0	10,0	7,300
Human resources in science and technology (hrst)	10	6,0	10,0	7,400
R&d personnel and researchers	10	5,0	10,0	7,500
High-tech industry and knowledge-intensive services	10	5,0	10,0	7,800
Overall mean				**7,32**

Source: Author's own elaboration

The number of responses received and the percentage for each value on the rating scale within the entire dimension. The following table confirms the importance attributed to this group of indicators, of which only one received a score below 7.

Table 15. Distribution of responses across the "Human capital" dimension

Results		
Responses	Nº	Percentage
Very low	0	0 %
1,00	0	0%
2,00	1	1,25%
3,00	3	3,75%
4,00	1	1,25%
5,00	6	7,50%
6,00	12	15,00%
7,00	17	21,25%
8,00	22	27,50%
9,00	6	7,50%
High	12	15,00%
Total	80	100,0%

Source: Author's own elaboration

During the assessment process, the experts proposed the inclusion of the following indicators, which will be considered and incorporated in the second phase (second round) of the research, thereby ensuring the gradual refinement and greater validity of the index construction. New indicators proposed by experts are as follows:

- Number of higher education institutions offering research programs in the field of Cultural and Creative Industries (CCI)
- Graduates in the fields of arts and humanities
- Natural sciences (hard sciences):
  a) trends in education in STEM fields (science, technology, engineering and mathematics)
  b) graduation and enrollment rates in these programs
  c) gender and diversity statistics in the natural sciences
- Indicators of creative achievements of artists and other creators (e.g., filmmakers, musicians, etc.) with international recognition, including awards and nominations, box office and album sales, critical reviews, cultural influence, legacy and impact, data on exhibitions and performances, social media metrics, academic citations, global reach, media coverage, fan base and art market data.

- Inclusion of arts and culture in the curriculum (presence in curriculum standards, number of instructional hours dedicated to these fields, teacher qualifications, number of enrolled students, etc.).

B. Openness and tolerance

Of the six proposed indicators, five received relatively low average scores (ranging from 6.9 to 5.4), while only one indicator — *public attitudes toward foreign visitors* — received a score above 7.

Table 16. Descriptive statistics of indicators across the "Openness and tolerance" dimension

B. Openness and tolerance				
Indicators	N	Minimum	Maximum	Mean (0-10)
Attitude of population toward foreign visitors	10	2,0	10,0	7,200
Foreign born population	10	1,0	8,0	5,400
Mobile graduates from abroad	10	2,0	10,0	6,600
Foreign tertiary education graduates	10	2,0	9,0	6,900
Foreign doctorate students as a % of all doctorate students	10	2,0	10,0	6,800
Employment rate of foreigners	10	3,0	9,0	6,400
Overall mean				**6,55**

Source: Author's own elaboration

The number of responses received and the percentage for each value on the rating scale within the entire dimension. The following table confirms the lower level of importance attributed to this group of indicators, as only one indicator achieved a score of 7.

Table 17. Distribution of responses across the "Openness and tolerance" dimension

Results		
Responses	Nº	Percentage
Very low	0	0%
1,00	1	1,67%
2,00	6	10,00%
3,00	1	1,67%
4,00	4	6,67%

Results		
Responses	Nº	Percentage
5,00	2	3,33%
6,00	8	13,33%
7,00	13	21,66%
8,00	17	28,33%
9,00	4	6,67%
High	4	6,67%
Total	60	100,0%

Source: Author's own elaboration

Additional indicators were proposed for inclusion in the second research round:

- Level of trust toward different social groups (family, neighbors, foreigners, people of different faiths)

C. Liveability and amenities

The expert group evaluated all eight proposed indicators with relatively low average scores (ranging from 6.9 to 5.8).

Table 18. Descriptive statistics of indicators across the "Liveability and amenities" dimension

C. Liveability and amenities				
Indicators	N	Minimum	Maximum	Mean (0-10)
Purchasing power parities (ppps), price level indices and real expenditures	10	2,0	9,0	6,100
Crime, violence or vandalism in the area	10	2,0	10,0	5,800
Health care expenditure as a share of gdp	10	2,0	9,0	5,700
Experienced well being score in happy planet index	10	2,0	9,0	5,900
Household income	10	2,0	8,0	6,500
Employment rate	10	2,0	10,0	**6,900**
Number of years of life expectancy	10	2,0	9,0	**6,600**
Percentage of the young population from 5 to 34 years of total population	10	2,0	9,0	**6,500**

C. Liveability and amenities				
Indicators	N	Minimum	Maximum	Mean (0-10)
Overall mean				**6,25**

Source: Author's own elaboration

The number of responses received and the percentage for each value on the rating scale within the entire dimension.

Table 19. Distribution of responses across the "Liveability and amenities" dimension

Responses	**Results**	
	Nº	**Percentage**
Very low	0	0%
1,00	0	0%
2,00	10	12,50%
3,00	0	0%
4,00	3	3,75%
5,00	11	13,75%
6,00	14	17,50%
7,00	20	25,00%
8,00	11	13,75%
9,00	9	11,25%
High	2	2,50%
Total	80	100,0%

Source: Author's own elaboration

Additional indicators were proposed for inclusion in the second research round:

- Salary levels

D. Governance

Of the 11 proposed indicators, all receive a score above seven.

Table 20. Descriptive statistics of indicators across the „Governance" dimension

D. Governance				
Indicators	N	Minimum	Maximum	Mean (0-10)
Country capacity to retain talent	10	4,0	10,0	7,900

D. Governance				
Indicators	N	Minimum	Maximum	Mean (0-10)
Country capacity to attract talent	10	3,0	10,0	8,000
Voice and accountability	10	4,0	9,0	7,000
Political stability and absence of violence/terrorism	10	3,0	10,0	7,700
Government effectiveness	10	3,0	10,0	7,800
Regulatory quality	10	3,0	10,0	7,800
Rule of law	10	3,0	10,0	7,200
Control of corruption	10	3,0	10,0	7,100
Direct public expenditure on culture	10	4,0	10,0	7,500
Capacity for innovation	10	5,0	10,0	8,100
Gross domestic spending on R&D	10	3,0	10,0	7,700
Overall mean				7,62

Source: Author's own elaboration

The number of responses received and the percentage for each value of the rating scale in the dimension as a whole. 83% of the 110 responses received for the 11 indicators rated in this dimension receive a high rating. This data is the sum of the percentages from a value of 6 on the scale to 10.

Table 21. Distribution of responses across the "Governance" dimension

Results		
Responses	Nº	Percentage
Very low	0	0%
1,00	0	0%
2,00	0	0%
3,00	7	6,36%
4,00	5	4,55%
5,00	7	6,36%
6,00	11	10,00%
7,00	12	10,91%
8,00	24	21,82%
9,00	20	18,18%

Results		
Responses	Nº	Percentage
High	24	21,82%
Total	110	100,0%

Source: Author's own elaboration

New indicators proposed by experts:

- Status of the artista - Regulation / policy to support the 1980 declaration on the status of the artist
- Signatory of the 2005 UN convention on the protection and promotion of the diversity of cultural expressions

E. Accessibility

The expert group evaluates the 4 proposed indicators negatively (6.9 – 6.2).

Table 22. Descriptive statistics of indicators across the "Accessibility" dimension

E. Accessibility				
Indicators	N	Minimum	Maximum	Mean (0-10)
Passenger flights	10	2,0	8,0	**6,700**
Accessibility by air	10	2,0	8,0	**6,900**
Accessibility by road	10	2,0	8,0	**6,600**
Accessibility by rail	10	2,0	9,0	**6,200**
Overall mean				**6,60**

Source: Author's own elaboration

The number of responses received and the percentage for each value on the rating scale within the entire dimension.

Table 23. Distribution of responses across the "Accessibility" dimension

Results		
Responses	N	Percentage
Very low	0	0%
1,00	0	0%

Results		
Responses	N	Percentage
2,00	4	10,00%
3,00	0	0%
4,00	0	0%
5,00	7	17,50%
6,00	1	2,50%
7,00	10	25,00%
8,00	17	42,50%
9,00	1	2,50%
High	0	0%
Total	40	100,0%

Source: Author's own elaboration

The average results obtained across the main dimensions of the index indicate the following distribution of values:
A. Human capital 7,32
B. Openness and tolerance: 6,55
C. Liveability and amenities: 6,25
D. Governance: 7,62
E. Accessibility: 6,60

Module 2. Creative base

A. Creative resources

Of the 4 proposed indicators, all receive a rating above seven.

Table 24. Descriptive statistics of indicators across the "Creative Resources" dimension

A. Creative resources				
Indicators	N	Minimum	Maximum	Mean (0-10)
Number of people employed in creative occupations	10	6,0	10,0	9,000
Share of employment in creative industries	10	4,0	10,0	8,500
Number of creative enterprises	10	3,0	10,0	8,300
Number of persons employed in newly created creative enterprises	10	3,0	10,0	8,300

A. Creative resources				
Indicators	N	Minimum	Maximum	Mean (0-10)
Overall mean				**8,53**

Source: Author's own elaboration

The number of responses received and the percentage for each value of the rating scale in the dimension as a whole.

Table 25. Distribution of responses across the "Creative resources" dimension

Results		
Responses	Nº	Percentage
Very low	0	0%
1,00	0	0%
2,00	0	0%
3,00	2	5,00%
4,00	1	2,50%
5,00	0	0%
6,00	1	2,50%
7,00	3	7,50%
8,00	7	17,50%
9,00	12	30,00%
High	14	35,00%
Total	40	100,0%

Source: Author's own elaboration

Expert suggestions indicate that additional indicators will be considered in the second round of the research:

- newly enterprises retained/ number of newly created creative enterprises
- number of higher education institutions pc
- Hard sciences
- Measures on the creative achievements of artists and others
- Provision of arts and culture in the curriculum
- Voice and accountability
- Rule of law
- Control of corruption
- Status of the artists/regulation

- Signatory of the 2005 un convention on the protection and promotion of the diversity of cultural expressions
- Existence of preferential treatment for artists and cultural goods and services
- % of persons with creative qualifications regardless of whether they are employed
- Multidisciplinary third spaces co-working hubs, incubators, innovation hubs
- Regulation adoption of wipo regulations (wipo treaty ratification)
- Provision of dedicated ci finance schemes and investment/investor readiness
- Existence of r&d programs in creative technology and in role of ccis for sustainable development
- Night time economy
- Festivals scale, diversity and frequency of independent festivals and events
- Number of electronic arts practitioners
- Cultural participation by country of birth
- Virtual event participation
- Number of unique visitors to cultural websites
- Number of creative occupations in adjacent industries such as tourism, education,leisure services
- Number of creative occupations employed in all other sectors apart from those counted as "creative"
- Multi disicplinary "third spaces" coworking hubs, incubators, innovation hubs
- Percentage of persons with creative qualifications regardless of whether they are employed

B. Creative industry output

Of the three indicators proposed in this dimension, only one indicator receives a low average score (6.6) to be considered as a success indicator for the validation of the European Creativity Index.

Table 26. Descriptive statistics of indicators across the " Creative industry output " dimension

B. Creative industry output				
Indicators	N	Minimum	Maximum	Mean (0-10)
Creative goods and services export	10	3,0	10,0	7,600
Turnover in creative industries	10	5,0	10,0	8,000
Gross value added at basic prices	10	2,0	10,0	6,600
Overall mean				**7,37**

Source: Author's own elaboration

The number of responses received and the percentage for each value of the rating scale in the dimension as a whole.

Table 27. Distribution of responses across the " Creative industry output " dimension

Results		
Responses	Nº	Percentage
Very low	0	0%
1,00	0	0%
2,00	1	3,33%
3,00	1	3,33%
4,00	0	0%
5,00	3	10,00%
6,00	3	10,00%
7,00	6	20,00%
8,00	8	26,67%
9,00	3	10,00%
High	5	16,67%
Total	30	100,0%

Source: Author's own elaboration

New indicators proposed by experts:

- Cultural participation - attendance captured by indicators other than strictly economic/financial
- Trade / export balance of trade indicators

C. Intellectual property and innovation

Table 28. Descriptive statistics of indicators across the " Intellectual property and innovation " dimension

C. Intellectual property and innovation				
Indicators	N	Minimum	Maximum	Mean (0-10)
Patent applications to the european patent office	10	3,0	10,0	7,000
Community design applications	10	2,0	10,0	6,700
Overall mean				**6,85**

Source: Author's own elaboration

The number of responses received and the percentage for each value of the rating scale in the dimension as a whole.

Table 29. Distribution of responses across the " Intellectual property and innovation " dimension

Results		
Responses	Nº	Percentage
Very low	0	0%
1,00	0	0%
2,00	1	5,00%
3,00	1	5,00%
4,00	2	10,00%
5,00	1	5,00%
6,00	2	10,00%
7,00	3	15,00%
8,00	7	35,00%
9,00	0	0%
High	3	15,00%
Total	20	100,0%

Source: Author's own elaboration

New indicators proposed by experts:

- Regulation adoption of wipo regulations

The average results obtained across the main dimensions of the index indicate the following distribution of values:
A. Creative resources: 8,53
B. Creative industry output: 7,37
C. Intellectual property and innovation: 6,85

Modul 3. Cultural vibrancy

A. Cultural venues and facilities

Of the four indicators proposed in this dimension, only one indicator receives a low average score (6.8) to be considered as a success indicator for the validation of the European Creativity Index.

Table 30. Descriptive statistics of indicators across the " Cultural venues and facilities " dimension

A. Cultural venues and facilities				
Indicators	N	Minimum	Maximum	Mean (0-10)
Number of museums	10	5,0	10,0	7,400
Number of theatres	10	5,0	10,0	7,600
Number of cinema seats	10	2,0	10,0	6,800
Number of world heritage cultural sites	10	3,0	10,0	7,000
Overall mean				**7,20**

Source: Author's own elaboration

The number of responses received and the percentage for each value of the rating scale in the dimension as a whole.

Table 31. Distribution of responses across the " Cultural venues and facilities " dimension

Results		
Responses	Nº	Percentage
Very low	0	0%
1,00	0	0%
2,00	1	2,50%
3,00	1	2,50%
4,00	1	2,50%
5,00	4	10,00%
6,00	7	17,50%
7,00	6	15,00%
8,00	10	25,00%
9,00	5	12,50%
High	5	12,50%
Total	40	100,0%

Source: Author's own elaboration

Expert suggestions indicate that additional indicators will be considered in the second round of the research:

- Art galleries and perfoming arts venues (e.g. concert halls); cultural festivals
- Access to broadband
- Night time economy (bars, restaraunts, street theatre, contemporary music scene, festivals)

- Number of electronic arts practitioners
- Cultural and creative hubs safe spaces for cultural dialogue, co-working spaces, impact hubs etc.
- Festivals scale, diversity and frequency of independent festivals and events

B. Cultural participation and attractiveness

Of the six indicators proposed in this dimension, two indicators receive a low average score (6.9 - 6.8) to be considered as success indicators for the validation of the European Creativity Index.

Table 32. Descriptive statistics of indicators across the " Cultural participation and attractiveness**"** dimension

B. Cultural participation and attractiveness				
Indicators	N	Minimum	Maximum	Mean (0-10)
Number of visitors per museum	10	3,0	9,0	6,800
Average annual cultural expenditure per household	10	6,0	10,0	8,100
Percentage of persons participating in cultural activities	10	7,0	10,0	8,500
Tourist overnight stays	10	2,0	9,0	6,900
Percentage of the population that is very satisfied with cultural facilities	10	5,0	10,0	8,000
Degree of personal importance of culture	10	5,0	10,0	8,500
Overall mean				**7,80**

Source: Author's own elaboration

The number of responses received and the percentage for each value of the rating scale in the dimension as a whole.

Table 33. Distribution of responses across the " Cultural participation and attractiveness " dimension

Results		
Responses	Nº	Percentage
Very low	0	0%
1,00	0	0%

Results		
Responses	Nº	Percentage
2,00	1	1,67%
3,00	1	1,67%
4,00	1	1,67%
5,00	5	8,33%
6,00	4	6,67%
7,00	9	15,00%
8,00	13	21,66%
9,00	17	28,33%
High	9	15,00%
Total	60	100,0%

Source: Author's own elaboration

New indicators proposed by experts:

- Cultural participation by degree of urbanization
- Cultural participation by country of birth

The average results obtained across the main dimensions of the index indicate the following distribution of values:
A. Cultural venues and facilities: 7,20
B. Cultural participation and attractiveness:7,80

Following the quantitative analysis carried out in this part of the report, we conclude that of the 56 indicators proposed, the following are rated lower and are therefore eligible for inclusion in the measurement:

- Foreign born population 5,40
- Mobile graduates from abroad 6,60
- Foreign tertiary education graduates 6,90
- Foreign doctorate students as a % of all doctorate students 6,80
- Employment rate of foreigners 6,40
- Purchasing power parities, price level indices and real expenditures 6,10
- Crime, violence or vandalism in the area 5,80
- Health care expenditure as a share of gdp 5,70
- Experienced well -being score in happy planet index 5,90
- Household income 6,50
- Employment rate 6,90
- Number of years of life expectancy 6,60

- Percentage of the young population from 5 to 34 years of total population 6,50
- Passenger flights 6,70
- Accessibility by air 6,90
- Accessibility by road 6,60
- Accessibility by rail 6,20
- Gross value added at basic prices 6,50
- Community design applications 6,70
- Number of cinema seats 6,80
- Number of visitors per museum 6,80
- Tourist overnight stays 6,90

Second round of Delphi research

In the second round of the Delphi research, experts were asked to reassess the initial set of indicators based on aggregated feedback from the first round, with the aim of refining the indicator framework and strengthening consensus on the most relevant dimensions of creative capacity.

In the second-round questionnaire (Appendix 3), the following indicators were excluded as they failed to achieve expert consensus, receiving scores below 7:

• Number of higher education institutions per capita;
• Hard sciences;
• Measures of creative achievement of artists and others;
• Inclusion of arts and culture in the curriculum;
• Voice and accountability;
• Rule of law;
• Control of corruption;
• Status of artist/regulation;
• Signatory of the 2005 UNESCO Convention;
• Existence of preferential treatment for artists and cultural services;
• % of people with creative qualifications regardless of employment;
• Multidisciplinary third spaces (co-working, incubators, innovation hubs);
• Adoption of WIPO regulations (ratification of WIPO treaties);
• Provision of financial schemes for CIs and investor readiness;
• Existence of R&D programs in creative technology and the role of CCIs in sust. development;
• Night-time economy;
• Scale, diversity and frequency of independent festivals and events;
• Number of electronic arts practitioners;
• Cultural participation by country of birth;

• Participation in virtual events;
• Number of unique visitors to cultural websites.

4.2.2.2. Final selection of variables

Starting from the initial pool of indicators presented in Appendix 4, a structured screening and refinement process was undertaken to develop the final operational dataset. This process involved statistical data search and successive selection steps, resulting in a reduced and validated set of indicators. The final outcome of this procedure is a set of **44 indicators** presented in Table 34. The selection process combined the Delphi method, expert consensus, and a systematic search of relevant statistical databases to ensure both theoretical relevance and data availability. Indicators for which reliable or comparable statistical data could not be identified were excluded from the final index, ensuring it's empirical robustness and operational feasibility.

For the purpose of operationalizing the final set of indicators and constructing the European Creativity Index (EU-CEI), a systematic search and data collection process was conducted using multiple internationally recognized and methodologically harmonized databases. The primary source was Eurostat, from which the majority of indicators related to education, the labour market, creative industries, cultural participation, trade and innovation were obtained. Additional data were collected from World Bank and OECD databases, particularly for macroeconomic and governance indicators, as well as from World Economic Forum sources for variables related to competitiveness, innovation capacity and governance. In the fields of education and mobility, data from the European Tertiary Education Register (ETER) and UNESCO Institute for Statistics were used, while cultural and creative dimensions were complemented by sources such as UNESCO, UNCTAD and the World Trade Organization. Furthermore, specific indicators were drawn from thematic databases such as EGMUS (for museums), Eurydice (for education systems), as well as indices such as the Happy Planet Index for measuring subjective well-being.

The proposed list of indicators represents a scientific contribution precisely because of the carefully implemented process of selecting the final indicators, assigning weights through expert consensus and ensuring the availability of a database that enables cross-country comparison within the European Union, as well as the possibility of conducting panel analyses to test interrelationships among the variables.

Table 34. Final indicators according to expert consensus and data availability

Variable name	***Short explanation***	***Reference***	***Unit of measure***	***Year***	***Source***	**Weight**
Sub-index	**ENABLING ENVIRONMENT**					25 %
Dimension	HUMAN CAPITAL AND EDUCATION					

Variable name	***Short explanation***	***Reference***	***Unit of measure***	***Year***	***Source***	**Weight**
Ind 01 Public expenditure on education	Government expenditure on education	Alexy et al, 2018; Hollanders et al, 2019	%	*2010 - 2020*	*Eurostat*	10%
Ind 02 / ind 03 Higher education graduates - *arts (ind 02)* - *humanities (ind 03)*	Graduates at Bachelor's or equivalent level and programme orientation by sex and field of education	Rodrigues and Franco, 2019	Nr	*2013 - 2021*	*ETER*	5%
Ind 04 Graduates at doctoral level	Graduates at doctoral level by sex and age groups - per 1000 of population aged 25-34	Rodrigues and Franco, 2019	Per thousand inhabitants	*2013 - 2021*	*Eurostat*	20%
Ind 05 Human resources in science and technology (hrst)	Human resources in science and technology (HRST) as a share of the active population in the age group 25-64.	Alexy et al,2018; Correia and Costa, 2014	%	*2011 - 2022*	*Eurostat*	15%
Ind 06 R&D personnel and researchers	R&D personnel and researchers in total active population and employment by sector of performance and sex	EIRC, 2020	%	*2013 - 2022*	*Eurostat*	20%

Variable name	***Short explanation***	***Reference***	***Unit of measure***	***Year***	***Source***	**Weight**
Ind 07/ ind 08/ ind 09 High-tech industry and knowledge-intensive services - *information and communication (j) (ind 07)* - *professional, scientific and technical activities (m) (ind 08)* - *arts, entertainment and recreation (r)(ind 09)*	Employment in technology and knowledge-intensive sectors (TERTIARY education ISCED 2011, levels 5-8):	Florida, 2002	Thousand persons	*2010 - 2022*	*Eurostat*	30%
Dimension	OPENNESS AND TOLERANCE					
Ind 10 Attitude of population toward foreign visitors	Attitude of population toward foreign visitors (How welcome are foreign visitors in your country?	Ndou et al, 2019	Value/ Rank	*2013 - 2015 - 2017 - 2019*	*TTC index*	60%
Ind 11/ ind 12/ ind 13/ ind 14 Level of trust towards different group of population - *trust completely (ind 11)* - *trust somewhat (ind 12)*	Q63.- Trust: People of another nationality	Ndou et al, 2019	%	*2011 - 2022*	*World value survey Q63*	40%

Variable name	***Short explanation***	***Reference***	***Unit of measure***	***Year***	***Source***	**Weight**
- do not trust very much (ind 13) *- do not trust at all (ind 14)*						
Dimension	LIVEABILITY AND AMENITIES					
Ind 15 Salary per employee	Average full time adjusted salary per employee	Ndou et al,2019	Eur	*2010 - 2022*	*Eurostat*	100 %
Dimension	GOVERNANCE					
Ind 16 Country capacity to retain talent	Country capacity to retain talent	Ndou et al,2019	average score	*2012 - 2017*	*WEF*	19%
Ind 17 Country capacity to attract talent	Country capacity to attract talent	Ndou et al,2019	average score	*2012 - 2017*	*WEF*	24%
Ind 18 Government effectiveness	Government effectiveness	Zelazny et al,2017	%	*1996 - 2022*	*WEF*	14%
Ind 19 Direct public expenditure on culture	General government expenditure on recreation, culture and religion	Correia and Costa, 2014; Hudec and Klasova, 2016	%	*2010 - 2021*	*Eurostat*	40%
Ind 20 Capacity for innovation	Capacity for innovation	Ndou et al,2019	average score from 1-7	*2012 - 2017*	*Link: https://www.humanprogress.org/dataset/capacity-for-innovation/*	30%
Ind 21 Gerd by sector of performance	GERD by sector of performance	Ndou et al,2019	%	*2010 - 2022*	*Eurostat*	9%

Variable name	*Short explanation*	*Reference*	*Unit of measure*	*Year*	*Source*	**Weight**
Sub-index	**CREATIVE ECONOMY**					50 %
Dimension	CREATIVE RESOURCES					
Ind 22 / ind 23 Creative occupations - *Legal, social and cultural professionals (ind 22)* - *related associate professionals (ind 23)*	Employed persons by detailed occupation (ISCO-08)	Florida and Tinagli, 2004; Alexy et al,2018;	Thousand persons	*2011 - 2022*	*Eurostat*	30%
Ind 24 Creative industries	Creative occupations employed in all other sectors apart from those counted as "creative"	San Miguel and Herrero Prieto, 2020	Thousand persons	*2010 - 2022*	*Eurostat*	20%
Ind 25 Creative employment	Employed persons by detailed economic activity	San Miguel and Herrero Prieto, 2020	Thousand persons	*2015 - 2022*	*Eurostat*	20%
Ind 26 Creative enterprises	Number of enterprises	San Miguel and Herrero Prieto, 2020	Nr	*2010 - 2020*	*Eurostat*	10%
Ind 27/ ind 28/ ind 29 Newly created enterprises - *information and communication (j)(ind 27)*	Enterprises newly established in t-1 having survived to t - number	Correia and Costa,2014; San Miguel and Herrero Prieto, 2020	Nr	*2010 - 2020*	*Eurostat*	10%

Variable name	*Short explanation*	*Reference*	*Unit of measure*	*Year*	*Source*	**Weight**
- professional, scientific and technical activities (m)(ind 28) *- arts, entertainment and recreation (r)(ind 29)*						
Ind 30 Employment in newly born enterprises	Employment share of 1 year old enterprises: Number of persons employed in enterprises newly born in t-1	Correia and Costa, 2014;	Nr	*2010 - 2020*	*Eurostat*	10%
Dimension	INTELLECTUAL PROPERTY AND INNOVATION					
Ind 31 ICT patent applications	Patent applications to the European Patent Office by applicants' / inventors' country of residence	GCI, 2015; Alexy, 2018; CCCM, 2019	Nr	*2010 - 2022*	*Eurostat*	100 %
Dimension	CREATIVE INDUSTRY OUTPUT					
Ind 32 International trade in creative goods and services	International trade in creative services	Bobirca et al,2011; CCCM, 2019; Ndou et al,2019	%	*2010 - 2022*	*UNCTAD*	20%
Ind 33 Creative goods	Values and shares of creative goods exports	Bobirca et al,2011; CCCM, 2019;	%	*2010 - 2021*	*UNCTAD*	20%

Variable name	*Short explanation*	*Reference*	*Unit of measure*	*Year*	*Source*	**Weight**
Ind 34 Creative turnover	Value added and turnover of enterprises in the cultural sector	Correia and Costa, 2014	Million euro	*2011 - 2020*	*Eurostat*	60%
Sub-index	**CULTURAL VIBRANCY**					**25%**
Dimension	CULTURAL VENUES AND FACILITIES					
Ind 35 Museums	Number of museums per million inhabitants	CCCM, 2019; Correia and Costa, 2014;	Nr	*2010 - 2022*	*Egmus*	50%
Ind 36 Theatres	Theatres	CCCM, 2019;	Nr	*2010 - 2022*	*Eurostat*	25%
Ind 37 Unesco cultural sites	World Heritage cultural sites	Kreigzdaite et al, 2020	Nr		*TTC report*	25%
Dimension	CULTURAL PARTICIPATION AND ATTRACTIVENESS					
Ind 38 Cultural values	Cultural values - How important is culture to you personally?	Correia and Costa,2014	%	*2007*	*EGMUS QA3*	20%
Ind 39 Cultural participation	Frequency of participating in Cultural activities (cinema, live performances or cultural sites)	cultural life index,2003	Nr	*2006 - 2015*	*Eurostat*	35%
Ind 40/ ind 41 / ind 42 Cultural participation by degree of urbanization	Frequency of participating in Cultural activities (cinema, live performances or cultural sites) -	cultural life index, 2003	Nr	*2006 - 2015*	*Eurostat*	10%

Variable name	*Short explanation*	*Reference*	*Unit of measure*	*Year*	*Source*	**Weight**
- cities (ind 40) *- towns and suburbs (ind 41)* *- rural areas (ind 42)*						
Ind 43 Satisfaction with cultural facilities	Perception of cultural facilities such as concert halls, theatres, museums and libraries in the city: very satisfied	CCCM, 2019	%	*2012 ; 2015 ; 2019*	*Eurostat*	10%
Ind 44 Cultural expenditure	Expenditure on cultural services	KEA,2009; Correia and Costa, 2014	Annual average index	*2010 - 2022*	*Eurostat*	25%

Source: Autor's research

Each indicator was selected through a systematic process that included applying the Delphi method and achieving expert consensus, researching relevant databases. These indicators reflect the multidimensional nature of creativity, encompassing economic, cultural and social aspects and allow for a comprehensive quantitative measurement of the creative potential of European Union member states.

The presented indicators serve as a foundation for index validation, as they enable accurate measurement of key factors within the creative sector and their interrelationships. Moreover, the availability of data in standardized databases enables comparative analysis among EU economies, while the application of panel analyses opens possibilities for research ing dynamic changes over time and testing hypotheses about interdependencies within the creative sector.

4.2.2.3. Data analysis

In the initial phase of the research, 44 variables were identified through expert consensus in two rounds, followed by data collection and database compilation.

The data refer to all European Union member states and initially cover the period from 2010 to 2022; however, due to data availability constraints and limitations in the coverage of key variables

required for the construction of the composite index, the operational dataset used for index development was restricted to the period **2011–2019** in order to ensure consistency, comparability, and completeness across all indicators.

After *data collection*, the process continued with the construction of the index, for which the statistical software R was used to perform data processing, normalization, and aggregation procedures.

4.2.2.4. Data imputation

The issue of missing data can be addressed through three general approaches. The first is complete case analysis or case deletion, a method that excludes records with missing values from the sample. This approach overlooks potential systematic differences between complete and incomplete samples and may yield unbiased estimates only if the deleted data form a random subsample of the original dataset. The other two approaches attempt to impute missing values using simple methods such as mean/median/mode substitution, regression imputation, expectation-maximization, or multiple imputation methods, for example, using a Markov Chain Monte Carlo algorithm (OECD/European Union/EC-JRC, 2008).

Certain indicators exhibited a significant share of missing values in specific years, while for some data were entirely unavailable. To ensure the validity of the analysis, filtering was conducted according to a minimum completeness criterion of 90% in each observed year. Indicators that did not meet this criterion were excluded from further analysis. From the initial set of 44 indicators, the final set of indicators retained for the construction of the European Creativity Index (EU-CEI) and comprises 18 indicators distributed across three sub-indices and their corresponding dimensions.

Within the *Enabling Environment* sub-index, the selected indicators capture key structural preconditions of creative capacity and include: public expenditure on education (ind.01) within the human capital dimension; high-tech industry and knowledge-intensive services—information and communication (ind.07), professional, scientific and technical activities (ind.08) and arts, entertainment and recreation (ind.09); salary per employee (ind.15) as a proxy of liveability and economic conditions; and governance-related indicators including government effectiveness (ind.18), direct public expenditure on culture (ind.19) and GERD by sector of performance (ind.21).

Within the Creative Economy sub-index, the retained indicators reflect the structure and dynamics of creative production and employment, including creative occupations—legal, social and cultural professionals (ind.22) and related associate professionals (ind.23), creative industries (ind.24), as well as newly created enterprises in information and communication (ind.27), professional,

scientific and technical activities (ind.28) and arts, entertainment and recreation (ind.29). In addition, the innovation dimension is captured through ICT patent applications (ind.31), while market performance is reflected by creative goods exports (ind.33).

Finally, the Cultural Vibrancy sub-index is represented by indicators capturing cultural values and investment in culture, including cultural values (ind.38) and cultural expenditure (ind.44), which together reflect the societal and behavioural dimension of creativity.

In the next step, it was necessary to select an appropriate imputation method. Although simple methods such as mean or median imputation are often used, in this case, they were deemed unsuitable as they do not provide sufficiently reliable estimates of missing values. Therefore, a more sophisticated K-nearest neighbor (KNN) imputation method was applied, as it proved to be more suitable for recognizing complex patterns in the data.

4.2.2.5. Data normalization

Due to the different measurement units of the indicators and the existence of variations in their means and variances, it is often necessary to perform data normalization. Normalization can have a decisive impact on the value of the European Creativity Index (EU- CEI) and consequently, on the ranking of units. One of the most commonly used normalization methods is standardization, that is, the transformation of values into *z*-scores, which gives indicators with extreme values a greater influence on the final European Creativity Index (EU- CEI) (OECD/European Union/EC-JRC, 2008).

Data normalization was carried out using the Min–Max scaling method, which ensured the comparability of indicators and eliminated the influence of differing measurement scales.

4.2.2.6. Multivariate analysis

Unidimensional and multidimensional analyses of each indicator help the researcher understand the structure and nature of the collected data. Unidimensional analysis guides the selection of an appropriate normalization technique (min/max, median, mode, arithmetic mean; histogram/boxplot; range/variance/standard deviation/quantiles; skewness). Multidimensional analyses (e.g., correlations between individual indicators; principal component analysis/factor analysis; Cronbach's alpha coefficient; cluster analysis; formative structural equation modeling or path analysis) should inform the choice of aggregation functions (Mendola and Volo, 2017).

In the first step, correlation tests among the 18 indicators were conducted and the results were presented using a correlation matrix (heatmap) - Figure 2.

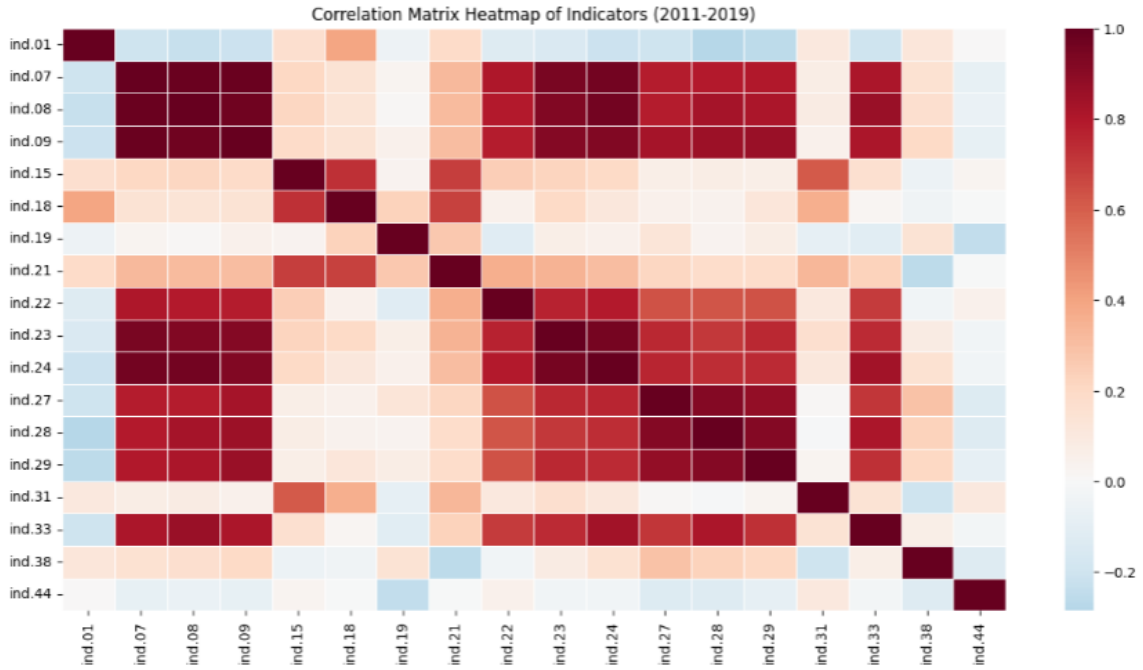

Figure 2. Correlation matrix and indicator selection procedure
Source: Author's research

Indicators with a high degree of mutual correlation (≥0.9) were further analyzed. In each pair of correlated indicators, the one with a higher weighting value was retained, while the indicator with a lower value was excluded. This procedure was repeated iteratively, starting from the indicators with the highest weighting values toward those with lower ones.

Through this process, the following indicators were excluded from further analysis: ind.08, ind.09, ind.23, ind.24 and ind.28 (certain indicators were excluded due to a high degree of inter-correlation).

The final set comprises 13 indicators grouped across three sub-indices:

Enabling environment

- Public expenditure on education
- High-tech and knowledge-intensive services
- Salary per employee
- Government effectiveness
- Direct public expenditure on culture
- GERD by sector of performance

Creative base

- Creative occupations
- Newly created enterprises – information and communication (J)

- Newly created enterprises – arts, entertainment and recreation (R)
- ICT patent applications
- Creative goods

Cultural vibrancy

- Cultural values
- Cultural expenditure

To determine whether further dimensionality reduction was necessary, Principal Component Analysis (PCA) was applied (Figure 3).

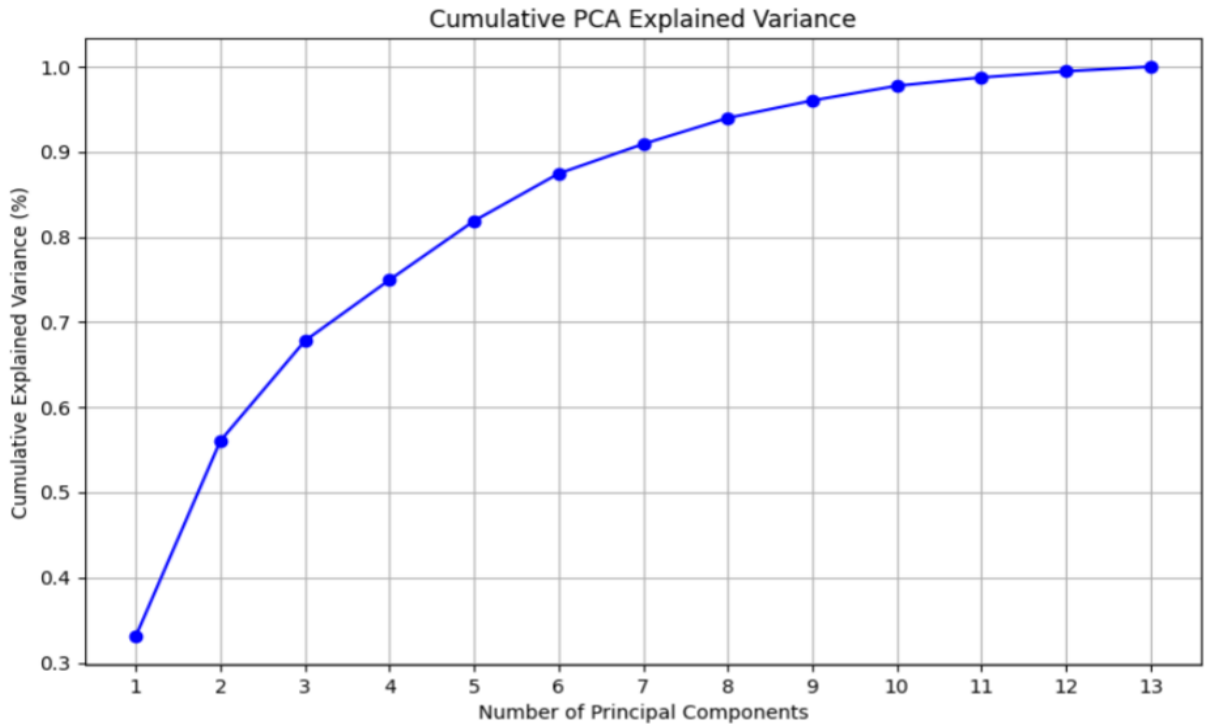

Figure 3. Principal Component Analysis results for the final set of Indicators (EU-CEI)
Source: Author's research

The results showed that 13 factors were required to explain the total variability, which corresponds to the number of retained indicators. This finding confirms that the selected set of indicators fully explains the variability in the data, indicating that there is no need to introduce additional variables.

4.2.2.7. Weighting and aggregation of data

One of the most challenging aspects of constructing a multidimensional index is the selection of weights for individual indicators. There are several methods for determining weight magnitudes. Some are based on statistical approaches, such as factor analysis, principal component analysis

(PCA), or Data Envelopment Analysis (DEA). Other methods include participatory approaches, such as the Analytic Hierarchy Process (AHP), Budget Allocation Process (BAP), or Conjoint Analysis (CA), which involve a broader range of stakeholders, including experts, citizens and policymakers (OECD/European Union/EC-JRC, 2008).

Since composite indicators aim to represent a multidimensional system through a one-dimensional index, it is necessary to select an appropriate aggregation function. The weighting system and data transformation are used in combination to ensure proper interpretation of the index. Given that individual indicators and sub-dimensions are usually not equally important in shaping the construct, their role and relevance are assessed through the analysis of the weighting system and the chosen weighting method (Mendola and Volo, 2017).

The literature distinguishes three basic weighting options:

- Equal weighting of all dimensions,
- Differential weighting based on expert opinion and
- Differential weighting based on endogenous (statistically derived) weights.

According to Bowen et al. (2008), assigning the same weight to each sub-indicator is the most common and simplest procedure. Such weighting reflects the assumption that all sub-indicators are equally important in the evaluation process and that all dimensions have the same importance, which is not necessarily true.

When different weights are applied based on expert judgment, the issue of subjectivity remains, as experts often hold diverse opinions. The endogenous weighting technique allows for the identification of preferences derived directly from the data, revealing which sub-dimensions receive relatively greater or lesser weights (Bowen et al., 2008, p. 378). When different sub-dimensions are not equally important, it is recommended to assign different weights based on expert opinion, although achieving consensus on acceptable weightings is often difficult.

The aggregation function is used to combine indicators into a single composite index. The literature distinguishes between several aggregation methods (Mendola and Volo, 2017):

- Linear aggregation rewards basic indicators according to their assigned weights.
- Geometric aggregation favors units (e.g., countries) with higher scores.
- Non-compensatory multi-criteria approaches (MCA) account for inequalities in the contribution of indicators.

The choice of aggregation method directly affects the value of the index and the interpretation of results; therefore, it must be carefully considered and transparently documented (Mendola and Volo, 2017).

The weight values of individual indicators in the case of the European Creativity Index (EU- CEI) were calculated using the Delphi method and aggregation was performed by summing the products of the assigned weights and corresponding indicator values.

4.2.2.8. Robustness check and sensitivity analysis

Robustness checks and sensitivity analyses are key steps in constructing a European Creativity Index (EU- CEI), as they allow for the assessment of the stability and reliability of results. In practice, a quantitative approach using Monte Carlo simulations is often applied to assess robustness, while sensitivity analysis involves variance-based techniques and uncertainty analysis (OECD/European Union/EC-JRC, 2008, p. 16). For a European Creativity Index (EU- CEI) to be credible, it is necessary to monitor the ability of indicators to provide consistent or similar information when any element of the process changes, or when individual indicators are replaced or removed. A lack of objective selection of weights and aggregation methods reduces the transparency of the entire process. The combination of uncertainty analysis and sensitivity analysis enables the evaluation of the index's robustness and enhances its transparency (OECD/European Union/EC-JRC, 2008).

Sensitivity analysis examines how variations in results can be qualitatively or quantitatively attributed to different sources of variation, showing the extent to which the European Creativity Index (EU- CEI) depends on the information it comprises. Uncertainty analysis, which is closely related to sensitivity analysis, quantifies the overall uncertainty in the classification of units and highlights uncertainties in results that stem from input data. The combination of these analyses assists in assessing robustness, increases the transparency of the European Creativity Index (EU-CEI) and facilitates scientific and policy discussions about the index (OECD/European Union/EC-JRC, 2008). However, high sensitivity of a European Creativity Index (EU- CEI) to small changes in input data can make the index unstable and unreliable. Therefore, it is essential during index construction to evaluate the extent to which variations in individual indicators affect changes in the index value. Since the 13 retained indicators explain 100% of the data variability, additional sensitivity analysis was not required. Changes in initial parameters, methods, or correlation threshold values would not contribute to relevant new insights, as all significant relationships are already measured within the existing set of indicators.

4.2.2.9. Index visualization

The European Creativity Index (EU-CEI) was constructed for European Union countries for the period 2011–2019 with the aim of measuring and comparing the creative potential among economies.

Table 35. European Creativity Index (EU-CEI) values across EU member states (2011–2019)

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average	St Dev
Germany	2.57469	2.59136	2.60802	2.60462	2.60123	2.58690	2.57016	2.54622	2.52361	2.57854	0.02838
Luxembourg	2.40239	2.41068	2.41897	2.40264	2.38632	2.39159	2.42631	2.40572	2.38717	2.40353	0.01379
France	1.92584	1.98027	2.03470	2.06937	2.10405	2.06017	2.01570	2.06888	2.07838	2.03749	0.05572
Denmark	1.99517	2.01600	2.03682	2.03244	2.02807	1.93390	1.98376	1.98392	1.97004	1.99779	0.03395
Sweden	1.92721	1.94392	1.96064	1.94811	1.93559	1.88767	1.94762	1.90302	1.94612	1.93332	0.02369
Netherlands	1.70881	1.71164	1.71446	1.80314	1.89181	1.78839	1.72254	1.83187	1.81319	1.77620	0.06529
Italy	1.50294	1.56834	1.63374	1.66344	1.69315	1.66999	1.67778	1.68653	1.67815	1.64156	0.06448
Finland	1.58631	1.62548	1.66465	1.63974	1.61482	1.56751	1.51799	1.58612	1.57986	1.59805	0.04353
Belgium	1.50159	1.50102	1.50046	1.53483	1.56919	1.52249	1.53350	1.56294	1.57453	1.53340	0.02982
Austria	1.43686	1.46237	1.48788	1.50515	1.52243	1.46356	1.49157	1.55763	1.56880	1.49958	0.04406
Ireland	1.33677	1.35503	1.37330	1.33433	1.29536	1.31022	1.29491	1.35678	1.37190	1.33651	0.03058
Spain	1.23226	1.23844	1.24462	1.26636	1.28810	1.22225	1.27559	1.22632	1.21923	1.24591	0.02495
Great Britain	1.10726	1.13108	1.15491	1.16578	1.17665	1.10350	1.14557	1.16520	1.16639	1.14626	0.02675
Malta	0.92335	0.92001	0.91666	0.91631	0.91596	0.96350	0.96924	0.95728	0.95832	0.93785	0.02335
Cyprus	0.91341	0.92614	0.93888	0.92655	0.91422	0.90234	0.89046	0.87199	0.87431	0.90648	0.02357
Slovenia	0.85980	0.84069	0.82159	0.81768	0.81378	0.79771	0.82719	0.88558	0.90036	0.84049	0.03462
Poland	0.77251	0.77284	0.77318	0.81968	0.86619	0.86704	0.86789	0.90859	0.91269	0.84007	0.05715
Estonia	0.73596	0.72190	0.70784	0.72691	0.74598	0.65476	0.73498	0.76988	0.79929	0.73306	0.04008
Czechia	0.66651	0.67419	0.68187	0.74298	0.80409	0.73612	0.75487	0.76657	0.75784	0.73167	0.04725
Portugal	0.73806	0.73569	0.73333	0.73702	0.74071	0.74701	0.71771	0.69593	0.69014	0.72618	0.02040
Hungary	0.50045	0.51452	0.52859	0.53967	0.55074	0.54684	0.56469	0.58899	0.56344	0.54422	0.02717
Greece	0.69102	0.68865	0.68628	0.65075	0.61523	0.56113	0.57883	0.56858	0.57530	0.62397	0.05566
Lithuania	0.49390	0.49484	0.49578	0.53251	0.56923	0.55295	0.60547	0.62390	0.60403	0.55251	0.05150
Latvia	0.45684	0.48454	0.51223	0.52595	0.53967	0.51467	0.53765	0.53802	0.56552	0.51945	0.03252
Croatia	0.51092	0.50209	0.49325	0.48536	0.47748	0.45659	0.46018	0.48275	0.43348	0.47801	0.02432
Slovakia	0.44929	0.44425	0.43920	0.47259	0.50598	0.48674	0.46540	0.45658	0.47519	0.46614	0.02155
Romania	0.42346	0.44286	0.46226	0.44820	0.43414	0.41376	0.43837	0.44305	0.41747	0.43595	0.01557
Bulgaria	0.28962	0.29200	0.29438	0.30440	0.31442	0.31456	0.30367	0.30762	0.30576	0.30294	0.00915

Source: Author's research

The interpretation and analysis of the collected data are presented in the following chapter through a comparative analytical framework. This approach enables a systematic examination of differences in creative capacity across EU member states based on the European Creativity Index (EU-CEI), allowing for the identification of structural patterns and variations in creative performance.

5. COMPARATIVE ANALYSIS OF CREATIVE CAPACITY ACROSS EU ECONOMIES

The chapter *Comparative Analysis of Creative Capacity across EU Economies*, focuses on the descriptive statistical and comparative assessment of creative capacity across EU member states, based on the European Creativity Index (EU-CEI) and its three dimensions: Enabling Environment, Creative Base and Cultural Vibrancy. The chapter is structured in two parts. First, the Comparative analysis framework is presented, outlining the methodological approach used to compare the creative performance of countries. In the second part, the research results are presented and discussed, offering empirical insights into variations in national creative profiles, spatial patterns of creative development and differences in creative potential across EU economies.

This comparative analysis provides an initial empirical foundation for understanding variations in national creative profiles and serves as a preparatory analytical step for the subsequent econometric examination of the relationship between creativity and tourism performance.

5.1. Comparative analysis framework

The comparative analysis is designed to assess and compare creative capacities across EU member states based on descriptive statistical analysis of the European Creativity Index (EU-CEI) and its three dimensions: Enabling Environment, Creative Base and Cultural Vibrancy. The analytical approach focuses on capturing structural disparities in creative capacities and examining their potential relevance for tourism development.

The aim of this analytical phase is to quantify and compare the creative performance of countries across each domain of the index, identify patterns and differences among them and provide a comparative overview of spatial distributions of creative development within the European Union. Average values obtained for each domain are used as the basis for ranking countries according to their relative creative performance. This ranking approach enables the identification of countries with higher and lower levels of creative potential and allows for systematic cross-country comparison among EU member states.

Appendix 5 presents the analysis and ranking of EU economies according to the European Creativity Index across all three dimensions, which serves as the basis for the presentation of results and conclusions in the following chapter.

5.2. Analysis and findings

The European Creativity Index (EU-CEI) enables systematic monitoring and assessment of the creative capacity of European Union member states, as well as comparison of creative potential across national economies. Through its three main dimensions: Enabling environment, Creative base and Cultural vibrancy - it provides insights into the institutional, market and social conditions for the development of creative industries and cultural policies at the national level.

A detailed analysis of each dimension is provided below, enabling a more in-depth examination of their individual characteristics, cross-country differences and their role in shaping the overall creative capacity of EU member states.

In the **Creative base** dimension, Germany ranks first, with a significant lead over other countries, reflecting long-term strategic investments in creative industries, a high share of creative occupations, strong export of creative products and services and a large number of patent and industrial design applications. Germany's position aligns with Throsby's (2001) thesis that the economic and cultural value of the creative sector jointly shapes its ability to generate innovation and social value. Countries such as Luxembourg, the Netherlands, France and Italy also rank highly due to a well-developed creative ecosystem, entrepreneurial activity and competitive export of creative products and services. The particularly low standard deviation in Luxembourg suggests a stable and uniform business environment for the creative sector. In contrast, Southeastern and Eastern European countries (e.g., Croatia, Latvia, Lithuania, Slovakia) are at the bottom of the ranking. These results corroborate findings by Kregzdaite et al. (2020), highlighting the challenges these countries face in converting cultural value into economic value through a less developed institutional creative sector. It is important to note that some countries with high scores in the Enabling Environment dimension (e.g., Denmark and Sweden) perform somewhat lower in the Creative Base dimension, suggesting that a strong institutional and social environment does not necessarily guarantee a developed creative sector. A more proactive approach is needed to create market, entrepreneurial and innovation mechanisms that enable the commercialization of creative ideas (Galian et al., 2021; Boix-Domènech and Rausell-Köster, 2021). High standard deviations in certain countries, such as Hungary and Bulgaria, further indicate uneven development of creative sectors within national borders.

Table 36. Ranking of countries according to the European Creativity Index (EU-CEI) – Domain: Creative basis

Country	***CREATIVE BASE***		Ranking
	Average	*St.Deviation*	
Germany	1,243056268	0,023529247	1
Luxembourg	1,005518508	0,000699750	2
Netherlands	0,859334773	0,057554946	3

Country	***CREATIVE BASE***		Ranking
	Average	*St.Deviation*	
France	0,826127835	0,053334142	4
Italy	0,707567558	0,034488554	5
Sweden	0,669629554	0,033823377	6
Denmark	0,510135413	0,025036563	7
Finland	0,453863082	0,030472076	8
Austria	0,421023440	0,033530253	9
Belgium	0,371962305	0,028861830	10
Spain	0,371693953	0,022314048	11
UK	0,341641127	0,016379742	12
Poland	0,328835289	0,038736692	13
Ireland	0,238873851	0,035271332	14
Hungary	0,174769671	0,238239982	15
Czechia	0,167279449	0,016822734	16
Malta	0,146520284	0,016983239	17
Romania	0,135895591	0,008432215	18
Portugal	0,109942568	0,011686019	19
Slovenia	0,102513996	0,010802296	20
Bulgaria	0,094337401	0,154068297	21
Greece	0,073895799	0,009654433	22
Cyprus	0,069927809	0,010111613	23
Estonia	0,057308491	0,003401070	24
Slovakia	0,057004810	0,007373066	25
Lithuania	0,049478760	0,006949787	26
Latvia	0,031239359	0,004684885	27
Croatia	0,023706389	0,001907749	28

Source: Author's research

The results presented in Table 36 confirm a pronounced and persistent spatial divide in the development of the Creative base across EU member states. While Western and Northern European countries demonstrate structurally advanced and well-integrated creative systems, many Central, Eastern and Southern European economies continue to face structural constraints that limit the full development and economic translation of their creative potential.

These results further highlight the uneven nature of creative development within the EU and underscore the importance of strengthening institutional, educational and innovation capacities in lower-performing countries.

In the **Enabling environment** dimension, the highest values are recorded in Northwestern European countries, including Denmark, Luxembourg, Germany and Sweden. These results confirm theoretical assumptions emphasizing the importance of high education levels, developed human capital, political stability and availability of cultural infrastructure as key factors for fostering creativity (Florida, 2002; Landry and Hyams, 2012). Low standard deviations in Denmark and Luxembourg indicate consistent conditions for creative activity, ensuring resource accessibility for diverse social groups. In contrast, Southeastern and Eastern European countries such as Romania, Bulgaria, Croatia and Slovakia face challenges such as insufficient investment in education and the cultural sector and underdeveloped infrastructure. Moreover, pronounced regional disparities further hinder the balanced development of creative potential at the national level. The results highlight the importance of a stable and evenly developed institutional environment as a foundation for creative activity.

Table 37. Ranking of countries according to the European Creativity Index (EU-CEI) – Domain Enabling environment

Country	***ENABLING ENVIRONMENT***		*Ranking*
	Average	*St.Deviation*	
Denmark	1,239883656	0,021039261	1
Luxembourg	1,189425334	0,014261046	2
Germany	1,133171155	0,021745493	3
Sweden	1,034048086	0,036414022	4
Belgium	0,956365721	0,017637854	5
France	0,939383002	0,019288617	6
Finland	0,924459478	0,023407787	7
Austria	0,910995884	0,015520652	8
Ireland	0,898410403	0,016571968	9
Netherlands	0,707568073	0,025121951	10
Spain	0,652156555	0,034224072	11
Italy	0,621983316	0,017377071	12
UK	0,578400003	0,016068744	13
Slovenia	0,500981436	0,013056128	14
Malta	0,490574609	0,013873287	15
Cyprus	0,454816287	0,020344519	16
Portugal	0,376886936	0,005909492	17
Estonia	0,349151028	0,035554135	18
Czechia	0,335541097	0,026146942	19
Poland	0,310542510	0,018396103	20
Latvia	0,281366973	0,021942382	21
Croatia	0,262019870	0,024500131	22

Country	***ENABLING ENVIRONMENT***		*Ranking*
	Average	*St.Deviation*	
Greece	0,250227489	0,022887221	23
Lithuania	0,243402066	0,022845055	24
Hungary	0,236334189	0,006524105	25
Slovakia	0,235218197	0,010999291	26
Romania	0,094349067	0,015193018	27
Bulgaria	0,062343679	0,008519416	28

Source: Author's research

The evidence from Table 37 points to a clearly differentiated pattern in the quality of Enabling environments across EU member states, reflecting uneven institutional and policy capacities to support creative and knowledge-based development. Countries in Northern and Western Europe, particularly Denmark, Luxembourg, Germany, Sweden, Belgium, France, Finland and Austria, consistently occupy the highest positions, indicating well-functioning institutional frameworks, stable governance structures and supportive regulatory conditions for creative activity. Ireland and the Netherlands also perform strongly, albeit with slightly more variability relative to the leading group.

By contrast, a large group of Southern, Central and Eastern European countries records considerably lower values, suggesting more constrained institutional settings for the development of creativity. While countries such as Spain, Italy and Great Britain occupy a mid-range position, most Central and Eastern European economies - including Croatia, Latvia, Poland, Slovakia, Romania and Bulgaria - remain clustered at the lower end of the distribution, reflecting persistent structural limitations in governance quality, policy support and institutional coordination.

Taken together, these results underscore that the enabling environment for creativity within the EU is highly uneven, with a clear concentration of supportive institutional conditions in more advanced economies and continued structural gaps in less developed member states.

Although the **Cultural vibrancy** concept is often defined in literature through a broader set of indicators (KEA European Affairs, 2015), in this study it is operationalized through two key variables: Cultural Values and Cultural Consumption. Cyprus achieves the highest results, reflecting high societal appreciation of cultural values and above-average public investment in culture relative to the size of the economy. This practice aligns with strategies of small countries using culture to enhance soft power and attract cultural tourism (Strom, 2003; Plaza, 2006). Estonia, in second place with extremely low standard deviation, demonstrates consistent implementation of cultural policies and stable public investment, confirming the importance of institutional commitment to cultural values as a foundation for developing the creative economy. Italy, Malta and Greece achieve high average values, consistent with their rich cultural heritage

and tradition of public investment in culture. Italy, despite its high average, shows slightly higher standard deviation, indicating regional differences in cultural investment between the north and south. Conversely, Austria, Slovakia and Croatia record the lowest values in Cultural Vibrancy, reflecting lower institutional and social valuation of culture and limited investment in the cultural sector. These results reflect socio-economic priorities in transitional economies, where culture often occupies a marginal position in public policies (Greffe, 2008). Interestingly, countries like Germany and Poland, which perform well in the Enabling Environment and Creative Base dimensions, have relatively modest results in this segment, confirming KEA European Affairs' (2015) assertion that a strong institutional framework and developed creative sector are not necessarily associated with the intensity of cultural consumption or societal valuation of cultural values.

Table 38. Ranking of countries according to the European Creativity Index (EU-CEI) – Domain: Cultural vibrancy

Country	**CULTURAL VIBRANCY**		Ranking
	Average	St.Deviation	
Cyprus	0,381734268	0,019886907	1
Estonia	0,326595745	3,92523E-17	2
Italy	0,312011064	0,044312032	3
Malta	0,300752773	0,015592209	4
Greece	0,299850649	0,023667010	5
France	0,271974207	0,036075271	6
Lithuania	0,259629830	0,031186175	7
Denmark	0,247771505	0,019983841	8
Portugal	0,239348443	0,026488321	9
Slovenia	0,236990965	0,030706707	10
Sweden	0,229646433	0,008898211	11
Czechia	0,228849266	0,024016666	12
UK	0,226218422	0,014093203	13
Spain	0,222056102	0,019162042	14
Finland	0,219731996	0,007966666	15
Hungary	0,213385083	0,021319339	16
Netherlands	0,209302103	0,011071672	17
Luxembourg	0,208589850	0,024970320	18
Latvia	0,206845921	0,023357022	19
Romania	0,205705915	0,026578851	20
Belgium	0,205067274	0,031029146	21
Germany	0,202307873	0,026527541	22
Poland	0,200691005	0,003598088	23

Country	**CULTURAL VIBRANCY**		Ranking
	Average	St.Deviation	
Ireland	0,199226863	0,019448964	24
Bulgaria	0,194515794	0,008980559	25
Croatia	0,192285541	0,013928866	26
Slovakia	0,173913220	0,008122919	27
Austria	0,167564073	0,014341499	28

Source: Author's research

Table 38 indicate that Cultural vibrancy within the EU is characterised by a relatively balanced but spatially differentiated structure. While countries such as Cyprus, Estonia and Italy stand out due to high levels of cultural activity and participation, a substantial number of member states remain clustered around mid-range values, suggesting moderate convergence in this dimension. At the same time, the lower positions of countries such as Slovakia, Austria and Croatia highlight persistent differences in cultural engagement and participation.

These findings confirm that cultural vibrancy represents a heterogeneous and multidimensional component of creative performance, reflecting both national cultural traditions and varying levels of institutional and social support for cultural activity.

Cumulative analysis shows that countries such as Germany, Luxembourg, France, Denmark, Sweden and the Netherlands consistently achieve high results across all three dimensions, while countries like Slovakia, Croatia, Bulgaria and Romania lag behind. The *high creative capacity of leading countries is linked to greater investment in culture, education and innovation, well-developed cultural infrastructure and dynamic creative industries. Countries with lower results face challenges such as insufficient funding for the creative sector, weaker institutions and emigration of young creative professionals.* The importance of integrated development policies is confirmed through investment in the education system, cultural infrastructure, promotion of entrepreneurship in creative industries and reduction of regional and sectoral disparities, particularly in Central and Eastern European countries.

The following section provides a detailed analysis according to the level of country development, whereby Figure 4 presents the development of the European Creativity Index (EU-CEI) for two group of countries over the period 2011–2019, based on the changes in their creativity and development index values over time.

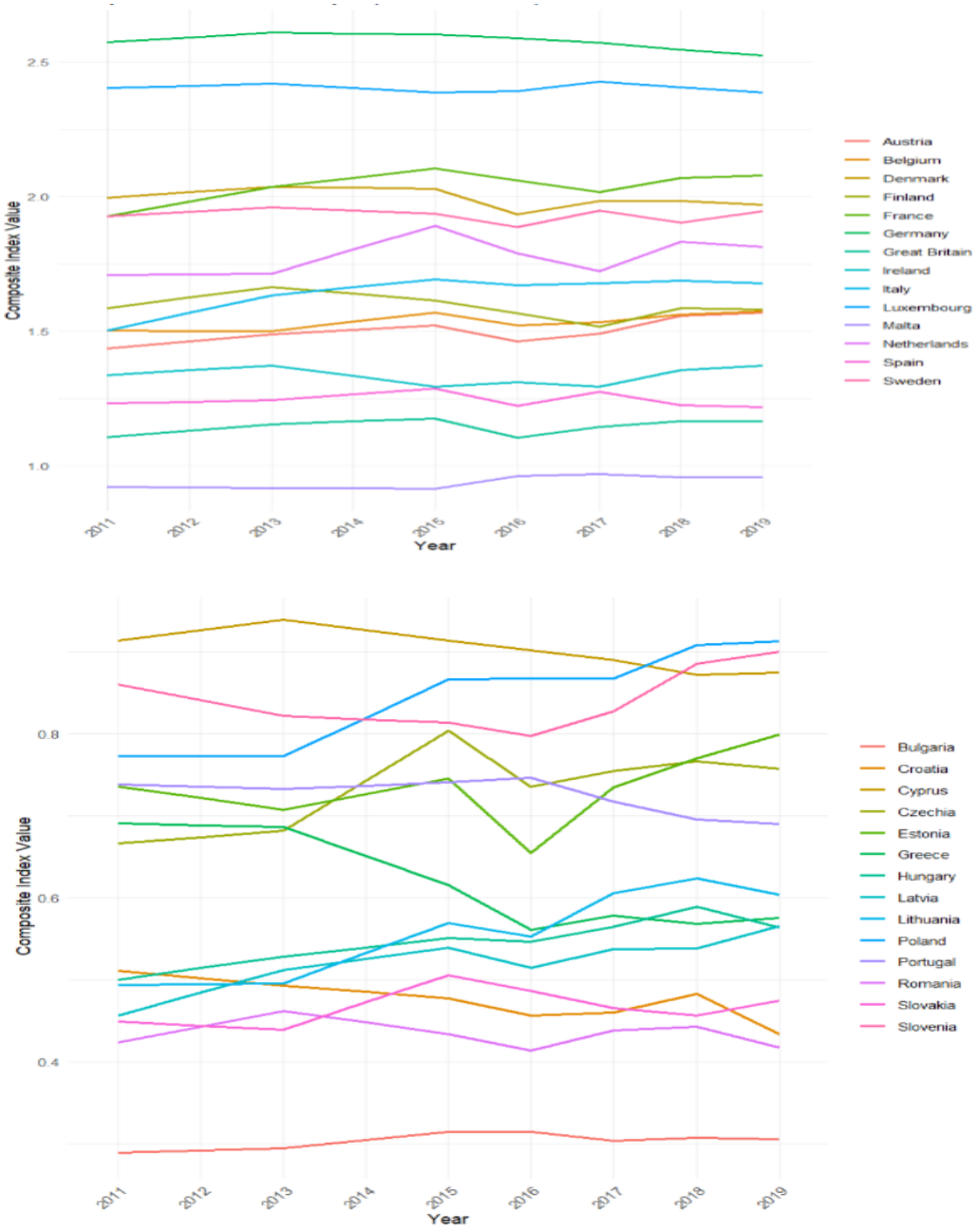

Figure 4. Spatial and developmental disparities in the European Creativity Index (EU-CEI) 2011–2019

Source: Author's research

The **first group** (developed EU member states) of countries is characterized by a moderate convergence trend, whereby individual states are gradually improving their European Creativity

Index (EU-CEI) values and slowly approaching more advanced levels of development. Despite this progress, significant disparities among countries remain, indicating partial but not complete convergence over the observed period. This group consists of highly developed economies in Western and Northern Europe (Austria, Belgium, Denmark, Finland, France, Germany, the United Kingdom, Ireland, Italy, Luxembourg, Malta, the Netherlands, Spain and Sweden), which are generally characterized by a high level of economic development, institutional stability and well-developed market structures. Although all countries belong to the group of advanced economies, substantial heterogeneity exists in terms of GDP per capita, with particularly high values recorded in smaller financial and specialized economies such as Luxembourg and Ireland, while Southern European countries such as Italy and Spain are positioned at relatively lower, yet still high, levels of development. This group is generally characterized by a high standard of living, well-developed social protection systems and strong human development indicators, including life expectancy and educational outcomes. The Nordic countries within the group further stand out due to their high levels of social equality and institutional efficiency, while Western European economies demonstrate strong stability and diversified economic structures. Southern European countries, although characterized by somewhat more pronounced regional inequalities and slower post-crisis recovery, still maintain high standards of quality of life in the European context. Overall, this group of countries represents a mature stage of economic development in which differences are primarily structural in nature, while convergence dynamics toward higher levels of development are limited.

The **second group** (less developed EU member states) of countries consists of Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia and Slovenia, which are characterized by lower levels of creativity according to the observed index, as well as generally lower but increasing levels of economic and institutional development compared to the first group. This group mainly includes Central and Eastern European economies, along with several Southern European countries, which are jointly characterized by a process of catching up with more developed Western European economies. The second group is generally marked by lower GDP per capita levels, with the exception of economies such as Czechia, Slovenia and Estonia, which are approaching the development levels of more advanced EU member states. Structurally, these economies exhibit transitional characteristics, with a gradual shift from industrial- and labor-intensive sectors toward services and higher value-added activities. However, a relatively high share of traditional industry and a lower level of technological sophistication compared to the first group remain prevalent in most countries.

Constraints in innovation capacity, research and development investment and institutional support for creative industries partly explain the lower levels of the creativity index in this group. In terms of quality of life, these countries achieve medium to high levels of human development; however, differences compared to the first group remain evident, particularly in income levels, labor productivity and institutional efficiency. As a whole, this group demonstrates clear convergence

tendencies, with the development gap gradually narrowing, albeit without full homogenization over the observed period.

Importantly, these structural differences in creative capacity correspond to broader macroeconomic patterns. *Countries with higher European Creativity Index (EU-CEI) values generally also exhibit higher GDP per capita levels and more diversified, innovation-driven economic structures, while lower-ranked countries tend to rely more on traditional sectors and display weaker growth dynamics.* Although this relationship is presented descriptively at this stage, it suggests a systematic alignment between creative capacity and economic performance, reinforcing the assumption that the creative economy acts as a reinforcing factor of long-term development rather than an isolated sectoral phenomenon.

Generally, when comparing the results with previous studies, countries such as Germany, Luxembourg, France, Denmark, Sweden, the Netherlands, Finland, Austria and Belgium show strong alignment with high-ranking countries according to the Global Creativity Index (Florida et al., 2015), the Cultural and Creative Industries Index (Kregzdaite et al., 2020) and the European 3T Creativity Index (Alexy et al., 2018). Common characteristics of these countries include substantial investment in creative industries, innovation and education systems that foster creativity and cultural vibrancy.

Germany and France have a long tradition of cultural investment, Sweden and Denmark lead in design and digital creativity, while the Netherlands, Finland and Belgium stand out for artistic innovation and stable support for the creative economy. These countries also achieve high values on the CEI (Creative Economy Index) (Żelazny and Pietrucha, 2017), with Sweden, Denmark and the Netherlands, for example, ranked among the "leaders of the creative economy."

As noted by Boal-San Miguel and Herrero-Prieto (2020), spatial differences in creative capacities are pronounced, with the highest concentrations of creative activities located in Central and Northern Europe, particularly around national capital regions, while Eastern and Southern Europe lag behind.

Countries such as Slovakia, Croatia, Bulgaria, Romania, Latvia, Hungary, Greece and Lithuania rank lower on the Global Creativity Index (Florida et al., 2015) and the Cultural and Creative Industries Index (Kregzdaite et al., 2020), with less developed cultural sectors and weaker investment in creative industries. The creative economy does not rely heavily on raw materials or labor; instead, it depends on "soft" factors: connectivity and communications, quality of urban spaces, cultural atmosphere, place attractiveness, rich cultural heritage and an open society (Florida, 2002; Landry and Hyams, 2012).

As a concluding consideration, when observed over time, the European Creativity Index (EU-CEI) (2011–2019) reveals relatively stable hierarchical positions among member states, with only gradual tendencies toward convergence. While some mid-range countries exhibit modest improvements in specific dimensions, the overall structure of creative inequality within the EU remains persistent. This suggests that *creative capacity is not a short-term cyclical phenomenon, but rather a path-dependent outcome shaped by long-term institutional, economic and cultural trajectories.*

In this context, the observed variations across EU member states provide empirical support for the comparative proposition (P1), confirming that: *Creative capacity is unevenly distributed and structurally embedded within national development systems.*

This reinforces the need for a more nuanced understanding of creativity not only as a cultural or economic asset, but also as a systemic development factor closely linked to institutional quality, innovation capacity and macroeconomic performance..

6. MODELLING CREATIVE ECONOMY AND TOURISM – EVIDENCE FROME EU ECONOMIES

The Chapter *Modeling creative economy and tourism – evidence frome EU economies* examines the role of the creative economy in shaping tourism development across European Union member states, with a particular focus on its economic implications. The analysis is grounded in the concept of creative tourism, where tourism functions as a mechanism for knowledge exchange and interaction among creative actors, thereby contributing to the broader development of the creative economy (Richards, 2018).

Although extensive theoretical frameworks address the relationship between creative industries, economic growth and innovation (Florida, 2002; Landry, 2000), empirical evidence that systematically quantifies this relationship remains limited. Existing literature is predominantly theoretical or qualitative in nature, with a persistent lack of robust empirical models capable of capturing the economic effects of the creative economy. Boix and Soler (2017) argue that current approaches are insufficiently developed to provide reliable indicators for measuring the contribution of creative industries to aggregate economic performance. Their semi-endogenous growth framework suggests that the creative economy enhances product diversity and productivity, thereby reinforcing its broader macroeconomic relevance. Similarly, Fadille et al. (2024) demonstrate that the creative economy, in interaction with tourism, contributes significantly to inclusive economic development.

Existing literature increasingly emphasizes that the relationship between the creative sector and tourism is dynamic, multidimensional and spatially heterogeneous (UNWTO, 2019). In particular, the effects of creativity on tourism development vary significantly across countries and over time, reflecting differences in institutional settings, cultural resources and levels of economic development. In this context, the application of panel data methodology enables the control of both temporal and cross-country heterogeneity, thereby providing a more robust and nuanced assessment of the impact of the creative economy on tourism performance.

By integrating comparative and econometric approaches, this research extends the existing literature by offering an empirical perspective on how creative capacities translate into measurable tourism outcomes. In doing so, it contributes to a more comprehensive understanding of the role of creativity in shaping tourism-driven economic development and provides evidence that may inform policy strategies aimed at strengthening synergies between the creative industries and the tourism sector.

These recent recearch underline the need for a more systematic examination of the synergy between creative sectors and tourism, as such analysis can improve the understanding of their interdependencies and reveal new mechanisms for sustainable economic growth. In addition, Benhaida et al. (2024) emphasize that the creative economy enhances tourist experiences and supports the development of sustainable tourism models, further reinforcing the strategic importance of creative industries within the tourism sector. However, despite theoretical arguments suggesting that creative cities and regions possess stronger tourism potential (Bacsi, 2017; Benhaida et al., 2024), a comprehensive empirical model that systematically quantifies this relationship is still lacking. This gap represents an opportunity for methodological advancement and more precise empirical assessment of the role of creative sectors in tourism development.

Although the theoretical link between creativity and tourism is well established, existing empirical evidence remains fragmented and methodological approaches often fail to capture long-term and dynamic effects. The main research problem of this chapter therefore relates to the lack of a systematic understanding of the contribution of the creative economy and creative industries to tourism development in the European Union. Current research is predominantly based on case studies or specific urban contexts, while a long-term, comparative and panel-based approach remains underdeveloped.

Section 6.1. *Analytical structure and methodological phases* outlines the overall research design and analytical framework of the research, including the statistical and econometric techniques applied in the empirical analysis. It provides the methodological foundation for the subsequent empirical investigation. Section 6.2 presents the empirical analysis and research results, organised into three interrelated sub-sections that examine the impact of the creative economy on tourism performance in the European Union. The analytical structure follows a sequential and multi-layered approach, progressing from comparative assessment to dynamic econometric estimation and robustness analysis. This design ensures a systematic examination of both cross-sectional differences and temporal dynamics in the effect of creative capital on tourism outcomes.

The first sub-section (6.2.1), Baseline panel evidence on the creative economy and tourism performance in the EU, comprises two complementary analytical components, providing the foundation for the subsequent econometric analysis. Building on these baseline results, the second sub-section (6.2.2), Dynamic effects of creative capital on tourism contribution to GDP: GMM analysis, extends the specification by applying a dynamic panel approach using the Generalized Method of Moments (GMM), enabling the analysis of temporal effects and potential endogeneity in the relationship between creative capital and tourism outcomes. Finally, the third sub-section (6.2.3), Robustness analysis of the creative economy impact on tourism outcomes, examines the stability and consistency of the baseline findings by introducing the number of tourist overnight stays as an alternative dependent variable, thereby reinforcing the robustness of the estimated effects across different measures of tourism performance.

6.1. Analytical structure and methodological phases

The analysis is grounded in the European context and focuses on the role and significance of the European Creativity Index (EU-CEI) in explaining tourism performance across EU member states, with a particular emphasis on economic impacts. While the social and environmental dimensions of tourism sustainability represent important avenues for future research, this research concentrates primarily on the economic contribution of creativity to tourism development. In the subsequent empirical analysis, the European Creativity Index EU-CEI is referred to as the C_index for reasons of analytical consistency and notation simplicity. The empirical analysis follows a structured three-step methodological approach, designed to ensure a systematic and robust examination of the effect of the European Creativity Index (EU-CEI) / C_index on tourism outcomes, as presented in Table 39.

Table 39. Empirical methodology: panel and GMM analysis of European Creativity Index (EU-CEI) and tourism performance

Phase	***Description***	***Method/Approach***	***Goal***
1. Panel analysis with Travel and Tourism Total Contribution to GDP (TTTGDP) as the dependent variable	Examining the role of European Creativity Index (EU-CEI)/ C_index in the overall contribution of tourism to GDP	Regression panel: Fixed Effects, Random Effects	To determine the importance of European Creativity Index (EU-CEI)/ C_index in the economic contribution of tourism
2. Dynamic Panel Analysis (GMM)	Robustness check of the previous analysis results and control for potential endogeneity	Generalized Method of Moments (GMM)	Confirmation of the stability of the influence of European Creativity Index (EU-CEI)/ C_index on TTTGDP
3. Panel analysis with OVERNIGHT STAYS as the dependent variable	Additional model validation using the number of overnight stays as an alternative variable	Regression panel: Fixed Effects, Random Effects	Testing the consistency of the impact of European Creativity Index (EU-CEI)/ C_index on tourism indicators

Source: Own compilation

The first phase is based on baseline panel regression analysis, using Fixed Effects and Random Effects models, with the total contribution of travel and tourism to GDP (TTTGDP) as the dependent variable. This stage assesses the effect of the European Creativity Index (EU-CEI) / C_index on the economic contribution of tourism and provides the initial econometric evidence on the effect of creative capital on tourism outcomes across EU member states. The first component provides an assessment of EU member states according to their level of creative development, based on the EU Creativity Index. This step establishes a comparative typology of countries and enables the identification of structural differences in creative capacity across the EU. The second component introduces a comparative analysis between Mediterranean and non-Mediterranean countries, with the aim of capturing potential regional heterogeneity in the relationship between creative development and tourism performance. The separation of these two components allows for a more nuanced understanding of spatial patterns, both at the level of individual country performance and broader regional groupings.

The second phase extends the baseline specification through a dynamic panel approach using the Generalized Method of Moments (GMM). This method is employed to address potential endogeneity and to capture lagged effects, thereby enabling a more robust estimation of the dynamic effect of creative capital on tourism contribution to GDP.

The third phase applies panel regression models (Fixed Effects and Random Effects) with the number of tourist overnight stays as an alternative dependent variable. This specification serves as an additional validation of the baseline results and allows for testing the consistency of the effect of the European Creativity Index (EU-CEI) / C_index across different measures of tourism performance.

Together, these three phases provide a comprehensive empirical framework combining static panel estimation, dynamic modelling and robustness analysis, ensuring both methodological rigour and the reliability of the estimated effects of creative economy indicators on tourism outcomes.

6.1.1. Dependent and control variables

The research model includes the following variables:

The dependent variable:
Travel and Tourism Total Contribution to GDP (TTTGDP) – the dependent variable and a key indicator providing detailed insight into the role of the tourism sector in a country's overall economy. It encompasses the direct, indirect and induced contributions of tourism to GDP and covers all economic aspects, showing the share of the travel and tourism sector in a country's GDP. Data on the total contribution of travel and tourism to GDP are collected from the World Travel and Tourism Council (WTTC). Source: WTTC

Overnight stays (Nights)– an additional dependent variable and a key indicator capturing the volume of tourist activity within a destination. It refers to the total number of nights spent by tourists in accommodation establishments such as hotels, apartments, campsites and other registered lodging facilities. This variable provides a direct measure of tourism demand and destination attractiveness, reflecting both domestic and international visitor behaviour. Higher values of overnight stays indicate stronger tourism performance and greater capacity of a country to attract and retain visitors. Data on overnight stays are collected from Eurostat. Source: Eurostat

Independent variables:

The European Creativity Index (EU-CEI) / C_INDEX - integrates key creativity indicators with tourism and economic growth data. The proposed index systematically quantifies creativity and tests hypotheses regarding its role in tourism across European Union countries. The model is based on three key dimensions:
- Enabling Environment - the presence of creative professionals and institutions.
- Cultural Vibrancy - the number of cultural events and institutions and the creation of cultural value.
- Creative Base and Innovative Potential - the outputs of creative industries, patent levels and start-up activity.

Global Competitiveness Index (GCI) – an annual report published by the World Economic Forum from 2004 to 2020. The GCI is a comprehensive indicator covering the microeconomic and macroeconomic foundations of national competitiveness. Competitiveness is defined as a set of institutions, policies and factors determining a country's productivity. The GCI reporting methodology changed in 2018 until 2017, a 1-to-7 scale was used and from 2018 onwards, a 0-to-100 scale is applied. Source: *The Global Competitiveness Report*, various editions – gcr.weforum.org

Human Development Index (HDI) – measures overall national development based on three main dimensions: long and healthy life, education and a decent standard of living. It provides a comprehensive insight into the welfare and development of a country's population, going beyond simple economic growth measurement. This index is important for analyzing the impact of development level and human capital on tourism and competitiveness, as countries with higher HDI often have better infrastructure and higher-quality labor, which can enhance the tourism sector. Source: UNDP – Human Development Index

Travel and Tourism Competitiveness Index (TTCI / TTDI) – published biennially, it assesses the competitiveness of the travel and tourism sector in 140 economies. It measures a set of factors and policies enabling sustainable development of the travel and tourism sector, contributing to national

development and competitiveness (2009, 2011, 2013, 2015, 2017, 2019, 2021). From the 2021 report onward, the World Economic Forum (WEF) publishes the Travel and Tourism Development Index (TTDI). Source: *Travel and Tourism Development Index (TTDI)*

International Tourism Expenditures (EXP) – represent the spending of international outbound visitors in other countries, including payments to foreign carriers for international transport. This indicator measures total expenditures by residents of one country during international travel, covering all travel-related costs: accommodation, food, transport, entertainment, recreation, shopping and other expenses. Source: UNWTO Tourism Data, *Yearbook of Tourism Statistics*, *Compendium of Tourism Statistics*, IMF and World Bank estimates

Domestic Tourism Spending (DTS) – this indicator is important because it provides insight into the economic significance of domestic tourism for the national economy. It helps assess the contribution of domestic tourists to revenues across sectors such as hospitality, transport, retail and entertainment. Moreover, it allows analysis of domestic tourism trends, including seasonal variations in spending and helps identify areas with potential for the development and promotion of domestic tourism. Data on domestic tourism spending (in real terms) are collected from the World Travel and Tourism Council (WTTC). Source: WTTC Tourism Data

6.1.2. Econometric and statistical framework

The statistical analysis was performed using the R programming language, employing panel data covering the period 2011–2019, with the exception of 2012 and 2014, which were excluded due to incomplete data availability for key independent variables. This exclusion was necessary to ensure the consistency, reliability and comparability of the dataset across all variables included in the panel analysis.

Panel data were chosen because they the allow tracking of the same phenomena across different time periods (Kennedy, 2008) and enable the analysis of fixed and/or random effects in the data. The choice between fixed and random effects models is based on the Hausman specification test (Hausman, 1978), where the null hypothesis assumes that the random effects mode is the preferred one.
Following Table 40 presents the research design and econometric model scheme.

Table 40. Research design and econometric model scheme

Secondary data		Eurostat UNWTO UNESCO World Bank

Variables	Dependent	TTTGDP NIGHTS (additional variable)
	Independent	EU-CEI /C_index
	Control	GCI HDI TTCI DTS EXT
Analytical approach		Descriptive analysis Panel regression/ F.E. GMM (robustness)
Results and interpretation		Role of EU-CEI on TTTGDP Role of EU-CEI on Nights

Source: Author's own elaboration

Econometric Model

To assess the role of the European Creativity Index on tourism performance, a panel regression with fixed effects (FE) is used, which controls for time-invariant characteristics of each country.

$$TTTgdp_{it} = \beta_0 + \beta_1 C_index_{it} + \beta_2 GCI_{it} + \beta_3 TTCI_{it} + \beta_4 EXP_{it} + \beta_5 DTS_{it} + \beta_6 HDI_{it} + \mu_i + \varepsilon_{it}$$

Where:

- C_index_{it} = European Creativity Index (EU CEI) measuring creative capital
- Control $Variables_{it}$ = economic and structural variables (GCI, HDI, TTCI, EXP, DTS)
- β = coefficients for each variable
- it = 'i' denotes a specific country, 't' denotes a specific year
- μ_i = fixed effect for a given country
- ε_{it} = random error term

Empirical research model

To examine the effect of the creative economy/ European Creativity Index (EU-CEI) on tourism performance, an empirical research model was developed integrating the key explanatory, dependent and control variables used in the analysis. The model is grounded in the research theoretical framework and comparative propositions, providing a structured basis for testing the effect of creative capacity on tourism outcomes. The conceptual structure of the empirical research model is presented in Figure 5.

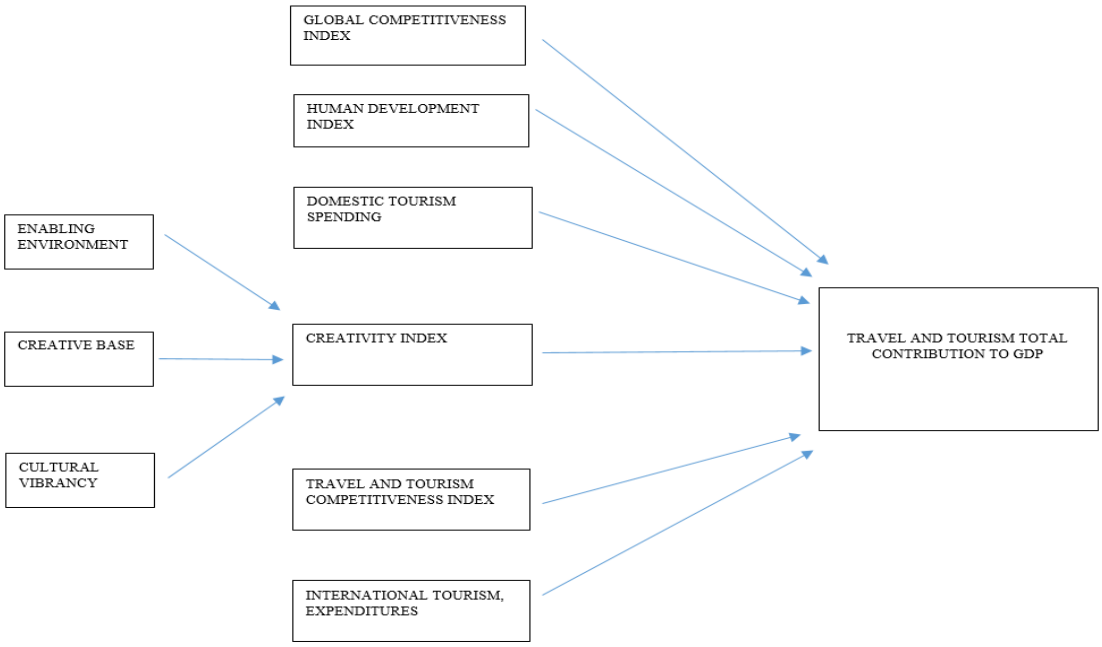

Figure 5. Creative economy and tourism: the empirical research model
Source: Own compilation

To ensure robustness, the GMM (Generalized Method of Moments) is also used to address potential endogeneity of the variables and the dynamics of the dependent variables over time, particularly for TTTGDP, where past tourism effects may influence current outcomes.

Ensuring reliability and avoiding methodological biases involves a series of statistical procedures to manage potential issues and validate the model:

1. Endogeneity – GMM reduces bias caused by simultaneity or feedback effects between tourism and the creative sector, testing for the existence of endogeneity in key variables and checking the stability of coefficients across model specifications.
2. Heteroskedasticity and autocorrelation – robust standard errors and time-fixed effects are used. Appropriate statistical tests (e.g., Hausman test) are conducted to select the optimal panel model (fixed or random effects).
3. Multicollinearity – Variance Inflation Factor (VIF) analysis and correlation checks between the EU-CEI and control variables ensure that regression coefficients are not distorted by high predictor intercorrelations.

This approach integrates all key methodological elements into a coherent and transparent framework, consistent with the objectives and hypotheses stated in the introduction. Based on these analyses, it is possible to quantitatively assess the impact of the creative sector on tourism performance in EU economies.

This approach allows for hypothesis testing in line with the cyclical model proposed by Marco et al. (2014). If β_1 is statistically significant and positive, it would confirm that creativity has a direct role in the economic sustainability of tourism.

In line with the formulated hypotheses: **H1: The creative economy has a significant positive effect on tourism economic outcomes.**

H1.1. The European Creativity Index (EU-CEI) has a significant positive effect on the total contribution of travel and tourism to GDP.

Higher levels of European Creativity Index (EU-CEI)/ C_index, measured through the EU-CEI, are associated with a greater total contribution of tourism to GDP (TTTGDP). This suggests that countries with more developed creative sectors tend to exhibit stronger integration of tourism within their national economies through the development of cultural and innovation-based services that attract visitors.

H1.2. The European Creativity Index (EU-CEI) has a significant positive effect on the number of tourist overnight stays.

Higher levels of European Creativity Index EU-CEI/ C_index are associated with a higher number of overnight stays in tourist accommodation establishments, indicating stronger tourism demand and longer visitor duration of stay in destinations with more developed creative ecosystems.

6.2. Empirical analysis and research results

In developing countries, creative economy policies are increasingly linked to development priorities such as poverty reduction, cultural heritage preservation, social inclusion and tourism promotion. Creative products and content are becoming more prominent as supplementary attractions in tourist destinations, highlighting the importance of creativity for economic development. However, the relationship between the creative ecosystem and economic outcomes is more complex than previously assumed (Boix Domenech and Rausell Koster, 2018). While this area is the subject of ongoing debate, empirical evidence confirming the full economic benefits of linking creative potential of a country with tourism growth remains limited.

Given the complexity of the relationship between creativity and tourism and the lack of macroeconomic empirical evidence, the research was designed as a panel analysis covering 28 EU countries from 2011 to 2019 (excluding 2012 and 2014 due to insufficient data availability for certain variables).

6.2.1. Baseline panel evidence on the creative economy and tourism performance in the EU

The results of the panel analysis and related tests are presented in Appendix 6.1. Based on empirical analyses using panel data, the Hausman test and fixed-effects models; it was determined that the variables included in the model have varying degrees of impact on the total contribution of tourism to GDP (TTTGDP) across the sampled countries. The Hausman test indicated that the fixed-effects model is statistically justified and consistent, ruling out the use of random-effects models.

Although the overall model is statistically significant (F-test), the explained variance (R^2) is moderate, suggesting the need for additional explanatory variables or consideration of non-linear relationships. Among the analyzed indicators, Domestic Tourism Spending (DTS) had a statistically significant negative effect on TTTGDP, which may indicate a limited contribution of domestic spending to the overall economic benefits of tourism compared to international tourism.

The European Creativity Index EU-CEI /C_index also showed a negative, albeit marginally significant, effect, reflecting the complex relationship between the creative environment and tourism development. Contrary to expectations, higher levels of creative capital in a country were not associated with greater economic contributions from tourism. This finding suggests that the relationship between creativity and tourism is neither direct nor simple and may depend on structural characteristics of the economy and policy direction. In countries with more developed creative sectors, there may be a greater focus on diversifying into higher value-added creative and innovative industries, making traditional tourism a relatively small contributor to GDP (Boix Domenech and Rausell Koster, 2018).

These results highlight the need for future research to examine indirect channels and contextual factors through which creative potential may influence tourism competitiveness and its overall economic impact. On the other hand, indicators such as GCI, TTCI, HDI and service exports (EXP) did not show statistically significant effects, suggesting further research is needed on the roles of structural and qualitative factors in tourism development.

6.2.1.1. Analysis of EU economies by the level of creative development

The analysis divided EU economies into two groups based on the average European Creativity Index (EU-CEI) (C_index) over the seven observed years, with countries classified according to

their relative levels of creative capacity. **Group 1 includes more developed countries** with an **index above 1** (Germany, Luxembourg, France, Denmark, Sweden, Netherlands, Italy, Finland, Belgium, Austria, Ireland, Spain, UK), while **Group 2 includes less developed countrie**s with an **index below 1** (Malta, Cyprus, Slovenia, Poland, Estonia, Czechia, Portugal, Hungary, Greece, Lithuania, Latvia, Croatia, Slovakia, Romania, Bulgaria). The aim was to examine the impact of creativity, measured by the European Creativity Index (EU-CEI), on TTTGDP, considering differences in economic development. Results are presented in Appendix 6.2.

Based on the Hausman test, a fixed-effects model was applied to Group 1, while a random-effects model was applied to Group 2. Panel analysis results indicate that the Travel and Tourism Competitiveness Index (TTCI) has a negative impact on TTTGDP in both groups, but it is statistically significant only in less developed countries (coefficient = –0.279, $p < 0.05$). This suggests structural weaknesses in less developed economies, where higher tourism competitiveness—despite improvements in infrastructure and offerings—does not necessarily translate into higher tourism contributions to GDP, due to seasonality, reliance on mass tourism and uneven revenue distribution.

DTS shows a significant difference between the two groups. In developed countries, DTS has a strong negative effect (coefficient = –1.888, $p < 0.001$), whereas in less developed countries the effect is positive but statistically insignificant. This implies that in developed countries, domestic tourism contributes less to the economy due to diversification and higher international tourism shares, while in less developed countries domestic tourism is not yet significant enough to have a visible macroeconomic impact.

The European Creativity Index EU-CEI /C_index, as well as variables like GCI, HDI and EXP, did not show statistically significant effects in either group. Although the European Creativity Index EU-CEI /C_index had a negative coefficient in both models (–7.242 in developed countries and –5.194 in less developed countries), high standard errors and statistical insignificance indicate a lack of a clear direct relationship between creativity and the economic contribution of tourism. A possible reason is the low variability of the European Creativity Index EU-CEI /(C_index) over time, making it difficult to model as a predictive variable in panel analysis.

These findings suggest that the relationship between creativity and tourism is neither universal nor linear but involves indirect mechanisms, such as innovation, quality of cultural offerings, destination competitiveness and attractiveness of urban spaces. In developed countries, high creativity may be associated with an economy oriented toward high value-added sectors, relatively reducing the role of tourism in GDP. In less developed countries, the creative sector is not yet systematically integrated into tourism or institutional frameworks, limiting its impact. Investments in creativity, through cultural projects, arts and creative industries - may be directed outside the tourism sector in developed countries, reducing direct benefits for tourism. In countries like

Croatia or Portugal, creativity can play an important role in diversifying offerings and enhancing international attractiveness, especially if integrated into cultural and experiential tourism strategies. Despite the theoretical potential of the creative sector to contribute to tourism development, the analysis does not confirm a direct and statistically significant relationship between the European Creativity Index EU-CEI /C_index and tourism's contribution to GDP. These results highlight the importance of contextualized public policies that consider economic development levels, structural characteristics of the tourism market and institutional integration of creative capacities. A differentiated approach allows for a deeper understanding of synergies between tourism and the creative economy, crucial for effective EU development strategies.

6.2.1.2. Comparison of Mediterranean and non-Mediterranean countries

This analysis compared Mediterranean and non-Mediterranean EU member states. The **Mediterranean group** included Greece, Spain, France, Italy, Cyprus, Malta, Portugal, Croatia and Slovenia, while the **non-Mediterranean group** included the rest of the EU. The analysis used panel data over a seven-year period and results were interpreted using the Hausman test, which showed statistically significant p-values ($p < 0.05$) for both groups, justifying the use of fixed-effects models. Results are presented in Appendix 6.3.

Key findings were as follows: The European Creativity Index EU-CEI /(C_index) had no statistically significant effect in non-Mediterranean countries (coefficient = 1.079). In Mediterranean countries, a negative effect of creativity on TTTGDP was observed (coefficient = –22.050, $p < 0.1$), indicating a complex relationship between creativity and tourism economic performance. In Mediterranean countries, higher creativity, often manifested through cultural industries and cultural tourism, may not be fully integrated into broader tourism strategies, limiting its contribution to the economy.

Creative industries in these countries often includes sectors not directly linked to tourism consumption, further reducing their impact on total economic output. Mediterranean countries display diverse levels of economic development and tourism structures. At one end are highly developed economies like France and Italy, while less developed, tourism-dependent countries like Greece and Croatia present additional challenges for data interpretation. This diversity makes it difficult for models to reliably identify the effects of individual economic variables on tourism competitiveness and its contribution to national GDP.

As Lazzeretti et al. (2015) note, Mediterranean regions often specialize in cultural creative industries rather than technological industries that could have a more direct economic effect on tourism. The "Mediterranean identity," encompassing cultural heritage, creativity and specific social and cultural patterns, shapes tourism development in these regions. This specificity may explain why the European Creativity Index EU-CEI /(C_index) did not have the expected effect.

Mediterranean countries often have rich cultural resources, but their creativity may focus on historical and cultural aspects rather than technology or innovation, which are not always aligned with modern tourism needs. While this sector is important for recognizing cultural and identity-specific features, it does not always generate economic effects sufficiently stable or large enough to be reflected in indicators such as TTTGDP. Additionally, Mediterranean countries are often characterized as "more active and emotional" (Lewis, 2010), which may influence tourism development patterns. This impulsiveness, along with seasonality in the tourism sector can reduce long-term stability and consequently, the economic impact of creativity on tourism.

DTS had a statistically significant negative impact on TTTGDP in both groups. In non-Mediterranean countries, the DTS coefficient was –1.791 ($p < 0.01$), while in Mediterranean countries it was –2.038 ($p < 0.01$). These results suggest that growth in domestic tourism spending is not proportionally linked to increased economic contributions from tourism. A stronger domestic market focus, typical in many non-Mediterranean countries, does not necessarily generate the same economic effect as international tourism. In Mediterranean countries, this negative effect is more pronounced, likely due to market characteristics already heavily oriented toward mass tourism and short seasonal periods, further reducing economic impact.

The TTCI showed a negative and statistically significant effect only in Mediterranean countries (coefficient = –0.863, $p < 0.05$). Although initially counterintuitive, this indicates that higher tourism competitiveness in Mediterranean countries, which already have high levels of tourist activity, does not necessarily translate into increased economic contribution from tourism. Possible reasons include market saturation, reduced product diversity and high seasonality, which do not provide long-term stability.

These results clearly indicate deep structural differences between Mediterranean and non-Mediterranean EU economies, particularly in terms of creativity. While Mediterranean regions have significant potential to integrate creativity into the tourism sector, the analysis suggests that further investments in creative industries and the promotion of international tourism are necessary to ensure sustainable economic growth. Long-term strategies are needed to better utilize cultural resources and develop innovative tourism products that can increase the economic impact of tourism on GDP.

6.2.2. Dynamic effects of creative capital on tourism contribution to GDP

To extend and deepen the previous panel model analysis, an additional analysis was conducted using a dynamic panel model estimated with the Generalized Method of Moments (GMM) (Appendix 7). This method is applied when there is a suspicion of endogeneity among variables,

i.e., when some dependent variables are simultaneously determined with explanatory variables, which compromises the consistency of estimates in conventional panel models. Furthermore, the GMM method allows the inclusion of a dynamic component, taking into account lagged values of the dependent variable.

The analysis employed the Arellano–Bond GMM model in first differences, using lagged values of the dependent variable as instruments (Holtz-Eakin et al., 1990; Arellano and Bond, 1991; Arellano and Bover, 1995). This approach helps control for dynamic bias and addresses potential endogeneity, which is often present in macroeconomic indicators such as the tourism share of GDP.

The model was applied to panel data for 28 EU member states over the period 2011–2019 (excluding 2012 and 2014), with the aim of analyzing the determinants of TTTGDP (total tourism contribution to GDP).

The lagged value of the dependent variable TTTGDP has a statistically significant negative effect on its current value ($\beta = –0.293$, $p < 0.001$), implying a negative dynamic relationship. In other words, countries with a high tourism share in the previous year tend to show a reduction in that share in the current year, assuming other variables remain constant.

Among the other economic indicators, only DTS (domestic tourist spending) was statistically significant, with a negative coefficient ($\beta = –3.43$, $p < 0.001$). This result suggests that an increase in domestic tourist spending may have a contractionary effect on the tourism share of GDP, potentially due to a smaller multiplier effect of domestic spending compared to foreign tourist demand. Other included variables (GCI, TTCI, EXP, C_INDEX) were not statistically significant, indicating a limited influence on short-term TTTGDP dynamics.

The consistency and validity of the GMM model were confirmed by the following diagnostic tests:

- Sargan test: evaluates the validity of instruments used in the GMM model ($p = 0.050$), which is at the threshold of acceptability, so cautious interpretation is required.
- Autocorrelation tests (AR(1) and AR(2)): assess whether there is serial correlation in the residuals of the first-differenced equation. In this case, no significant autocorrelation was observed in the second lag (AR(2), $p = 0.078$), confirming the model's validity.
- Wald test: examines the joint significance of all included variables. A significant result ($p < 0.001$) indicates that the model is well-specified and that the explanatory variables collectively affect the dependent variable.

The model is statistically correctly specified, with clear evidence of a dynamic effect and a significant negative impact of DTS on TTTGDP.

The results of the dynamic GMM analysis indicate that the contribution of tourism to GDP (TTTGDP) shows a negative dynamic relationship, meaning that high tourism shares in one year are often unsustainable in the following year. At the same time, domestic tourist spending (DTS) shows a strong and statistically significant negative impact on TTTGDP, suggesting its limited effectiveness in generating overall added value. These findings highlight the need for tourism policies focused on long-term sustainability, increasing the efficiency of domestic spending and strengthening sector resilience, rather than short-term indicator growth. Introducing a time dimension into tourism economic planning is crucial for a more precise understanding of policy effects and for avoiding misguided strategic directions.

The European Creativity Index (EU-CEI) /C_index as a composite measure reflecting a country's capacity to develop, attract and retain creative capital—including innovation, technology, talent and cultural production—would theoretically be expected to have a positive effect on destination attractiveness and tourism added value. However, the results of the GMM analysis did not confirm the statistical significance of this variable in explaining the dynamics of the tourism share of GDP (TTTGDP). Specifically, although the C_INDEX coefficient is negative ($\beta = -5.86$), its p-value ($p = 0.235$) indicates a lack of statistical reliability, meaning its effect in this model cannot be considered significant.

6.2.3. Robustness analysis of the creative economy impact on tourism outcomes

To verify the robustness of the results obtained from the main model, where the dependent variable was the total tourism contribution to GDP (TTTGDP), an additional analysis was conducted using an alternative, more operational dependent variable – the number of tourist overnight stays (NIGHTS). This variable was chosen as a control because it provides more direct insight into the intensity of tourism activity, independent of the broader macroeconomic context that includes indirect effects (e.g., employment, investment, fiscal revenues). TTTGDP, as an aggregated macroeconomic measure, encompasses a wider spectrum of the economic impacts of tourism and may be influenced by factors not directly related to the volume of tourist demand. In contrast, the number of overnight stays represents a concrete, quantitative measure of tourist arrivals, enabling a more precise test of the direct relationship between the level of development (composite index) and tourism activity.

The research results are presented in Appendix 8. The model shows that GCI and HDI are significantly associated with the dependent variable NIGHTS, whereas the European Creativity Index EU-CEI /C_index and other variables were not significantly related to the dependent variable. The analysis was conducted using the same country classifications as in the main model: by development level – dividing countries into more developed (C_Index > 1) and less developed (C_Index < 1) (Appendix 8.2); and by geographical grouping – dividing countries into

Mediterranean and non-Mediterranean (Appendix 8.3). For both classifications, Hausman tests were conducted to select the appropriate models.

The analysis results revealed clear differences in model behavior depending on the group:

- In the less developed countries group (Group 2 – Malta, Cyprus, Slovenia, Poland, Estonia, Czech Republic, Portugal, Hungary, Greece, Lithuania, Latvia, Croatia, Slovakia, Romania, Bulgaria), the index was a statistically significant predictor of overnight stays at the $p < 0.1$ level. An increase of one point in the index was associated with an average increase of 714 overnight stays, controlling for all other variables in the model.
- In the more developed countries group (Group 1 - Malta, Cyprus, Slovenia, Poland, Estonia, Czechia, Portugal, Hungary, Greece, Lithuania, Latvia, Croatia, Slovakia, Romania, Bulgaria), the European Creativity Index EU-CEI /C_index did not have a statistically significant impact, whereas significant variables included GCI, TTCI and other structural indicators.

The control analysis using the "number of overnight stays" as additional variable confirmed the key conclusion of the main analysis: *the impact of the European Creativity Index (EU-CEI) on tourism activity is not universal but conditioned by the country's level of development.*

The European Creativity Index EU-CEI /C_index has a significant effect only in less developed countries, indicating that even modest improvements in structural and institutional capacities in these economies can lead to tangible increases in tourist demand.

Given the lack of significant impact in the developed and geographically defined groups, it can be concluded that in these contexts, other factors such as infrastructure quality, promotion, political stability, or specific market niches play a more substantial role in shaping tourism activity. This additional analysis thus provides an important confirmation and extension of the main analysis, emphasizing the need for careful interpretation of results in light of the specific contexts of the countries included in the research.

7. DISCUSSION

Empirical research linking creative potential and tourism draws on a diverse set of theoretical perspectives, methodological approaches and indicators, yet it remains fragmented and lacks a unified framework for assessing the long-term economic implications of the creative sector for tourism development. Foundational contributions such as Florida's (2002) theory of the creative class highlight the role of creative human capital in fostering urban innovation, cultural vibrancy and destination attractiveness. However, while this perspective is influential in explaining urban competitiveness and talent attraction, it offers limited empirical quantification of tourism-related economic outcomes.

Building on this foundation, Pratt (2008) conceptualizes creative industries as key elements in shaping the symbolic and cultural identity of destinations, thereby contributing to differentiation and place branding. Nevertheless, his work does not systematically examine the measurable economic effects of creativity on tourism performance. Similarly, Richards (2011, 2018, 2020) demonstrates that cultural events, festivals and creative activities enhance tourist experiences and can stimulate demand, particularly by increasing visitor engagement and length of stay, although these findings are predominantly based on case-study evidence and do not extend to a comprehensive, cross-country quantitative assessment, particularly within the EU context.

From a sectoral and policy perspective, creativity is increasingly recognized as a driver of competitiveness in tourism economies. Dziedzic and Kaczmarek (2016) argue that creative industries enhance market dynamism and support economic development through innovation and differentiation. Richards (2012) further identifies multiple channels through which creativity operates in tourism, including product innovation, revitalization of tourism offerings, valorization of cultural resources, visitor experience enhancement,and atmospheric design. In addition, the integration of creativity into tourism policy frameworks has become more prominent, reflecting its perceived role in supporting sustainable economic growth and cultural development (Richards, 2018).

Despite these contributions, empirical operationalization of creativity in tourism research remains limited and uneven. Existing studies typically rely on heterogeneous indicators such as educational attainment in creative fields, employment in creative industries, cultural participation rates, frequency of cultural events, museum attendance and intellectual property outputs (KEA European Affairs, 2015; Boix-Domènech and Rausell-Köster, 2018). These indicators are often used to approximate creative potential and its potential linkage to tourism performance measures, including tourism's contribution to GDP, overnight stays, tourism expenditure and sectoral employment. However, such approaches are rarely integrated into a comprehensive analytical framework capable of capturing multidimensional relationships.

Literature therefore reveals several persistent limitations. First, research is often fragmented geographically and by sector, focusing on individual cities, regions, or isolated case studies rather than adopting a comparative, longitudinal EU-wide perspective. Second, existing indices and measurement approaches typically fail to integrate the economic, cultural and social dimensions of creativity in a coherent structure, thereby limiting their explanatory power. Third, there is a notable lack of robust empirical testing of the direct and indirect relationships between creative capacity and key tourism performance indicators.

In response to these limitations, there is a clear need for a more comprehensive composite index that integrates multiple dimensions of the creative economy, including human capital, cultural infrastructure, innovation capacity, institutional quality, social openness and cultural participation. Such a framework would enable more systematic empirical testing of the role of creativity in tourism development and provide a stronger basis for comparative and longitudinal analysis.

The expert evaluation conducted in this research further reinforces this conclusion. It identifies a shift away from narrowly defined, output-oriented indicators towards a more holistic conceptualization of creativity as a multidimensional system embedded in economic, institutional, cultural and social contexts. In particular, experts emphasize governance quality, inclusiveness, trust, openness and cultural participation as fundamental components of creative capacity. This perspective supports the development of an integrated measurement framework that combines both observable outputs and underlying enabling conditions, thereby offering a more comprehensive and realistic representation of the role of creativity in tourism development.

The discussion is structured arround four analytical phases: qualitative, instrumental, comparative and empirical in order to systematically integrate conceptual foundations, measurement approaches, cross-contextual differences and the research empirical findings.

7.1. Qualitative insights

The synergy between the creative economy and tourism has proven to be one of the key levers for developing sustainable and competitive tourist destinations in the contemporary context. Integrating creative industries into tourism strategies enriches tourist offerings with authentic, innovative and multisensory content, while deeply reinforcing the cultural identity of local communities, thereby contributing to their long-term economic, social and environmental sustainability. The creative economy can significantly enhance the tourism offer and create unique and attractive experiences for visitors. Conversely, tourism can serve as a platform for promoting creative content, further strengthening local communities and supporting sustainable development.

Findings from the integrative literature review and consultations with academic experts highlight the synergy between the creative economy and tourism in their contribution to sustainable development and the economy. The research identified ten thematic areas, including cultural heritage preservation, sustainable management, technology integration, green tourism, social entrepreneurship, sectoral collaboration and stakeholder involvement as key aspects and trends in the development of creative tourism. Furthermore, there is a need for long-term strategies that incorporate education, financial support and the promotion of sustainable practices.

Key lessons for tourism development provide foundational guidelines for designing sustainable tourism strategies through the integration of creative industries, innovation and cultural heritage as the basis of destination competitiveness. Particular emphasis is placed on the need for new management approaches, cross-sector collaboration and the application of technology and green practices to stimulate the transformation of rural communities, social entrepreneurship and long-term tourism sustainability. Additional contributions come from research questions that open space for new discussions, allowing deeper analysis of challenges and opportunities within this field.

In the future development of sustainable creative tourism, it is essential to focus efforts on three interconnected areas—**education, technology and social inclusion**—because their synergy enables an innovative and responsible approach to developing cultural-tourism destinations.

- **Education** must become a strategic foundation for building the capacity of all stakeholders involved in creative tourism. The systematic training of employees, creative industry entrepreneurs, tourism professionals and local community members in sustainable practices, creative processes and digital technologies is necessary to ensure the long-term competitiveness and resilience of the sector. Establishing educational programs that link digital tools with participatory approaches enables greater community involvement in shaping the tourism offer and strengthens sustainable business models as well (Maquera et al., 2022; Lapuz et al., 2023). Such programs not only facilitate knowledge transfer but also foster innovation, protect cultural heritage and strengthen cross-sector collaboration, making education a key instrument in the development of sustainable destinations (Arango-Morales et al., 2019). As Kačerauskas, Štreimikienė and Bartkutė (2021), as well as Varotsis (2022), emphasize, sustainability education promotes creativity, social inclusion and cultural responsibility, making its implementation essential in shaping the creative economy.

- **Technological advancement** represents the second key pillar of sustainable creative tourism development. The introduction of virtual and augmented reality, digital platforms and personalized online systems enables a more authentic and interactive presentation of cultural destinations, enhancing their competitiveness in the global market (Guttentag, 2010). Digital innovations, in addition to enriching the visitor experience, have the

potential to reduce tourism's negative environmental impacts, for instance through digital experiences and virtual visits that relieve physical resources (Varotsis, 2022). Furthermore, implementing technology helps monitor the effects of tourism on the environment and communities, enabling more precise and effective resource management.

- Third, **social inclusion** must be a central element of any sustainable creative tourism model. Active involvement of creative industries, cultural actors and urban communities in the planning and implementation of projects is crucial for ensuring social relevance and creating added value for local populations (Betlej and Kačerauskas, 2021). Participatory approaches foster social cohesion, strengthen local identity and allow for a fairer distribution of benefits from cultural and creative initiatives, turning tourism into a tool for social development rather than merely economic growth.

The synthesis of these elements; education, technology and social inclusion enables destinations to be innovative, adaptable and sustainable, allowing them to fully exploit the potential of the creative economy in tourism as a driver of development that is economically efficient, environmentally responsible and socially accountable.

Creativity, creative industries and tourism together create numerous opportunities for achieving sustainable development and economic growth. If ecological values and sustainable practices are properly integrated into business models, tourist destinations can become more competitive in the global market while remaining environmentally responsible. This ensures the preservation of cultural resources and heritage, promising responsible business practices that provide long-term sustainability and stability for the destination. Given that integrating creative industries into the tourism sector offers numerous advantages; from enhancing authenticity and emotional engagement to enriching tourist experiences and offerings, transforming rural communities and creating synergistic effects; such an integrated approach requires strategic planning, policy adaptation and active community involvement. This guarantees long-term sustainability and economic growth while preserving cultural values. As tourism increasingly demands authentic and unique experiences, the creative economy becomes a key driving force for innovation in the tourism sector. The synergy between the creative economy and tourism changes how destinations approach tourism development and fosters a new model of tourism that values cultural diversity, encourages active participation and promises sustainable and inclusive economic growth.

The EU strives to provide greater support to European artists and creators, thereby contributing to the further development of European culture and identity. In line with the objectives of the Creative Europe Programme 2021–2027, which focus on protecting, developing and promoting European cultural and linguistic diversity and heritage, as well as increasing the competitiveness of the

cultural and creative sectors; with particular emphasis on the audiovisual sector - culture plays a key role in strengthening the resilience of European society and economy.

The cultural and creative sectors significantly contribute to the economic development of the European Union by creating jobs and stimulating growth. Given the challenges of digitalization and global competition, stronger support of these sectors in Europe is essential. Europe's cultural and linguistic diversity represents an invaluable asset. It is, therefore, crucial to develop appropriate strategies and solutions to enable the dissemination of European cultural works beyond national borders.

7.2. Instrumental framework and European Creativity Index (EU-CEI)

Creativity is a complex and multidimensional concept; therefore, its measurement requires an integrated composite approach in order to ensure validity, reliability and scientific robustness. Although a wide range of indicators has been developed to measure different aspects of creativity, many of them remain methodologically limited in terms of comparability and empirical strength, but are nonetheless widely applied by both public and private stakeholders. In response to these limitations, the European Creativity Index (EU-CEI) was developed as a composite measure consisting of three modules: Enabling Environment, Creative Base and Cultural Vibrancy designed to encompass the key structural determinants of creative capacity and its potential contribution to economic development in EU economies.

The expert contribution, obtained through the Delphi method, introduces a significantly broadened perspective on creativity measurement. It shifts the analytical focus away from predominantly quantitative and output-based indicators towards a more holistic and multidimensional framework. Within this revised understanding, creativity is not solely reflected in traditional economic measures such as employment levels, institutional density, or production outputs, but is increasingly conceptualized as a system shaped by qualitative, institutional and social dimensions. Experts particularly emphasize the importance of cultural participation, governance quality, openness, trust, inclusiveness and policy environments, thereby reframing creativity as a phenomenon embedded within broader societal and cultural structures. This represents a conceptual shift towards interpreting creativity as an integrated outcome of economic performance, institutional quality and socio-cultural dynamics, rather than a narrowly defined statistical construct.

7.3. Comparative analysis of creative capacity

The comparative analysis is suggesting that creative capacity should be understood not merely as an outcome of development, but also as a structural component of broader socio-economic transformation. The persistence of hierarchical differences among EU member states indicates that creativity is embedded in long-term institutional and developmental trajectories, rather than easily generated through short-term policy interventions. This has important implications for understanding why convergence in creative capacity remains gradual despite broader EU cohesion efforts.

From a development perspective, these findings support the view that the creative economy functions differently across national contexts. In more developed economies, creative capacity appears closely integrated with mature innovation systems and broader structural competitiveness, while in less developed economies it may represent a more dynamic source of transformation and upgrading. This suggests that the developmental role of creativity is context-dependent and mediated by institutional readiness, policy coordination and absorptive capacities.

A broader policy implication emerging from the findings is that strategies aimed at strengthening the creative economy should not be treated as isolated cultural or sectoral policies, but as part of wider development strategies linking innovation, education, institutional quality and territorial competitiveness. In that sense, the comparative analysis reinforces the argument that creativity constitutes a systemic development factor whose contribution extends beyond immediate economic outputs and should be assessed through a *longer-term structural lens*.

7.4. Empirical evidence and hypothesis testing

This research highlights the complexity of the relationship between the creative economy and tourism within the European Union, emphasizing that creativity—rooted in innovation, cultural values and digital technologies - is a key factor in shaping sustainable tourism destinations. In line with theoretical frameworks and existing empirical research, several hypotheses were tested in relation to their impact on tourism outcomes.

The results show that DTS (domestic tourism spending) and to some extent, EXP (international tourism expenditures) are the strongest and most consistent economic predictors of TTTGDP. Structural indicators such as GCI, TTDI/TTCI and HDI demonstrate theoretically expected but statistically weak effects, which can be explained by their long-term and indirect influence on tourism performance.

The European Creativity Index (EU-CEI) is not statistically significant in most model specifications, indicating that creativity:

- does not generate short-term macroeconomic effects,

- produces long-term structural and symbolic impacts,
- shows stronger effects in less developed countries,
- may be partially overshadowed by seasonality and the mass-tourism model in Mediterranean countries.

Hypothesis H1: The creative economy has a significant positive effect on tourism economic outcomes was not fully confirmed. While the creative economy contributes to tourism economic performance through cultural and innovative inputs, the empirical results indicate that its effects are not consistently observable in short-term macroeconomic indicators, although partial support was found in specific segments of the analysis.

Following Table 41 provides a synthesis of the empirical findings of the model, presenting the analysed variables, their theoretically expected effects, the observed empirical effects and their interpretation within the context of the research.

Table 41. Empirical findings in the model

Variable	***Definition***	***Theoretically expected effect***	***Empirical effect in the analysis***	***Interpretation***
TTTGDP *(dependent variable)*	Total contribution of travel and tourism to GDP – direct, indirect and induced contributions (WTTC).	–	–	Main macroeconomic indicator capturing the overall economic role of tourism.
European Creativity Index (EU-CEI)	Composite index of creative capacities in EU economies: Enabling environment, Creative base, Cultural vibrancy.	**Positive** – creativity diversifies the tourism offer, strengthens destination identity and increases innovation and added value.	Mostly **insignificant**: negative in Mediterranean countries **(insignificant)**; **slightly positive** in less developed countries.	Creativity generates long-term, indirect effects that do not immediately translate into short-term tourism GDP contribution. The negative sign in Mediterranean countries reflects

Variable	*Definition*	*Theoretically expected effect*	*Empirical effect in the analysis*	*Interpretation*
				seasonality and weak integration of creative industries into tourism.
GCI – Global Competitiveness Index	Measures national competitiveness based on institutions, infrastructure, macroeconomic stability, labor market efficiency, innovation, etc.	**Positive** – higher competitiveness supports a more efficient tourism industry and better infrastructure.	Often **positive**, but frequently **insignificant**.	Indicates that competitiveness affects tourism structurally and in the long run, which may not manifest in short-term TTTGDP changes.
HDI – Human Development Index	Measures national development based on health, education and standard of living.	**Positive** – higher development improves human capital and infrastructure, supporting tourism.	Mostly **positive**, but often **insignificant**.	HDI influences tourism indirectly; its effect is cumulative and not easily captured in a short panel period.
TTCI / TTDI – Travel & Tourism Competitiveness / Development Index	Measures competitiveness of the travel and tourism sector (policies, infrastructure, sustainability).	**Positive** – greater competitiveness promotes efficiency and economic contribution.	Generally **positive**, but largely **statistically insignificant**.	Similar to GCI: reflects structural, long-term conditions that do not necessarily increase short-term TTTGDP levels.
EXP – International	Spending of residents during international	**Negative** – more outbound spending reduces	Often **negative**, sometimes **significant**.	Outbound tourism spending can reduce

Variable	*Definition*	*Theoretically expected effect*	*Empirical effect in the analysis*	*Interpretation*
Tourism Expenditures	(outbound) travel.	domestic tourism-related economic activity.		domestic tourism revenues, lowering TTTGDP.
DTS – Domestic Tourism Spending	Spending of domestic tourists within the country (WTTC).	**Positive** – increases internal tourism demand and raises tourism's contribution to GDP.	**Positive and significant**.	The most direct driver of TTTGDP growth; reflects stable internal demand resilient to external shocks.
(additional model) **Nights (overnight stays)**	Number of tourist overnight stays (Eurostat) – control variable for physical tourism activity.	**Positive** – more tourism activity increases demand and economic contribution.	**Positive**, used as a control variable.	Confirms the expected link between tourism volume and tourism GDP contribution.

Source: Author's own elaboration

While Hypotheses H1.1 and H1.2 predicted a positive contribution of the European Creativity Index (EU-CEI) to tourism GDP and the number of tourist overnight stays, the results indicate that this effect is limited in short-term economic indicators and is in some cases not statistically significant.

Hypothesis H1.1 European Creativity Index (EU-CEI) has a significant positive effect on the total contribution of travel and tourism to GDP) was not confirmed in most specifications. Partial confirmation was found only in the Mediterranean countries's group, where the effect was statistically significant but negative. These findings provide partial support for the rejection of H1.1.

Hypothesis H1.2 European Creativity Index (EU-CEI) has a significant positive effect on the number of tourist overnight stays was partially confirmed only in less developed creative economies, where the coefficient was positive and statistically significant. This suggests a possible indirect role of creative resources in enhancing tourism attractiveness in developing contexts.

These results support the view that creativity, although not immediately reflected in short-term economic indicators, may generate long-term effects on tourism flows, particularly in countries where creative sectors are still in development. As Florida (2002) argues, the creative economy can contribute significantly to local economic development; however, its effects are not always directly measurable through short-term tourism indicators. In contrast, in more developed economies with stronger institutional and infrastructural frameworks, other factors—such as market segmentation and service quality - often play a more immediate role in shaping tourism performance.

The findings further highlight the importance of a multidimensional approach to understanding the relationship between the creative economy and tourism, taking into account economic, institutional, cultural and social factors that shape market dynamics.

As Pratt (2008) emphasizes, creative industries contribute to destination development primarily through cultural and symbolic dimensions, gradually shaping place identity, while their economic effects are often indirect and long-term. In this regard, the impact of creativity on tourism performance becomes more visible only in longitudinal analyses that incorporate broader structural and developmental processes. Overall, Hypothesis H1 was not fully confirmed, while its effect on the number of overnight stays was negligible in developed economies, suggesting that creativity operates primarily through indirect and structurally embedded mechanisms.

As Cooke and Lazzeretti (2008) point out, creative industries are strongly tied to specific territorial contexts and their characteristics significantly influence local development trajectories. Countries such as France, Italy and Spain, which exhibit higher levels of creative capacity, demonstrate how the integration of cultural sectors and innovation can provide competitive advantages in the global tourism market (Richards, 2011). In contrast, countries such as Croatia, Greece and Portugal need to further develop their creative sectors in order to reduce vulnerability to external shocks and strengthen the sustainability of their tourism models. The OECD (2020) also emphasizes the importance of coordinated policy approaches that integrate creative industries into sustainable tourism strategies, ensuring synergies between cultural heritage preservation and economic development.

To ensure sustainable tourism growth within the European Union, it is necessary to develop policies that not only support innovation in creative industries but also ensure their integration into broader tourism development strategies. This includes investment in creative infrastructure, education and innovation systems, as well as stronger links between cultural sectors and tourism policy frameworks.

8. CONCLUSION

This chapter synthesizes the main research outcomes and discusses their theoretical and practical implications. It is structured into three subchapters delineating synthesis of key research findings, the scientific contribution of the research and its limitations along with suggestions for future research.

The first subchapter highlights the principal findings in relation to the research objectives. The second subchapter outlines the research scientific contribution, while the third reflects on the research limitations and identifies directions for further research. Together, these sections provide a concluding synthesis of the dissertation and position its findings within a broader scholarly context.

8.1. Synthesis of main research findings

This doctoral dissertation systematically examined the interrelationship between the creative economy and tourism through a theoretical, instrumental and empirical framework, with the aim of deepening the understanding of their mutual influence within the context of sustainable development. The primary objective was to explore the concept of the creative economy through the European Creativity Index (EU-CEI) and to assess it’s role in shaping tourism performance across EU member states.

The research is structured around several interconnected components—conceptual, theoretical, instrumental, comparative and empirical—which together form a comprehensive analytical framework.

The *conceptual foundation* synthesised existing literature on creativity, creative industries, the creative economy and tourism, identifying key theoretical developments, challenges and measurement approaches.

The *theoretical phase* further elaborated the relationship between creativity and tourism, emphasising its contribution to sustainable tourism development and establishing the conceptual basis for empirical testing. The analysis was guided by a working hypothesis.

The **working hypothesis**, which *assumed a strong interconnection between the creative economy and tourism in contributing to sustainable development, was confirmed through theoretical analysis and qualitative evidence* as presented in Table 42.

Table 42. Qualitative findings on the Working Hypothesis

Hypothesis	***Status***	***Explanation***
Working Hypothesis: *The creative economy and tourism are related in their effects on sustainable development and the economy as a whole.*	Accepted	Theoretical analysis, integrative literature review and interviews with academic experts confirm existence of synergy between the creative sector and tourism. Creative economy contribute to the diversification of tourism offerings, the preservation of cultural heritage, the strengthening of local communities and long-term sustainability.

Source: Author's research

The results indicate that creative economy and within the creative industries play an increasingly important role in tourism development by enhancing destination attractiveness, diversifying tourism products, supporting cultural heritage preservation and strengthening local communities.

The *instrumental phase* focused on the construction of a composite indicator, the European Creativity Index (EU-CEI), developed using the Delphi method and structured across three dimensions: enabling environment, creative base and cultural vibrancy. This index provides a multidimensional measure of national creative capacity and enables a more systematic quantification of creativity within the European context. The empirical phase applied panel regression and Generalized Method of Moments (GMM) techniques to assess the relationship between creative capacity and tourism performance indicators, including tourism contribution to GDP and international overnight stays.

The comparative analysis confirms that creative capacity, as measured by the European Creativity Index (EU-CEI), is unevenly distributed across EU member states and closely associated with broader differences in economic development and macroeconomic efficiency. The results support comparative Proposition, showing that higher levels of creative economy tend to be concentrated in more developed economies characterised by stronger institutional quality, higher competitiveness, greater innovation capacity and more favourable socio-economic conditions.

The European Creativity Index (EU-CEI) (2011–2019) reveals relatively stable hierarchical positions among member states, with only gradual convergence tendencies, suggesting that creative capacity is a structurally embedded and path-dependent phenomenon rather than a short-term or cyclical outcome. While some mid-range countries show moderate improvements in particular dimensions, the overall pattern of creative inequality within the EU remains persistent. These findings confirm that creativity should not be interpreted solely as a cultural or economic asset, but as a systemic development factor linked to long-term institutional and macroeconomic

trajectories. In this respect, the comparative analysis provides empirical grounding for **Proposition** P by demonstrating that *countries* with higher levels of economic development - reflected in quality of life, economic well-being and macroeconomic efficiency - also tend to achieve higher levels of creative capacity.
At the same time, the findings indicate that this association is not uniform across all country groups. Less developed member states display stronger evidence of convergence and greater potential for creative capacity to generate measurable developmental effects, while in highly developed economies creativity is more often embedded in mature innovation systems and expressed indirectly through structural competitiveness and long-term value creation.

The *empirical results* provide a more nuanced picture. Hypothesis **H1** *is only partially confirmed*, indicating that the relationship between creativity and tourism performance is context-dependent. In less developed EU member states, the European Creativity Index demonstrates a statistically significant positive effect on tourism demand, particularly in terms of overnight stays. In contrast, in more developed economies, the impact of creativity appears to be indirect, primarily expressed through innovation, differentiation and long-term value creation rather than immediate macroeconomic effects. In Mediterranean countries, no robust positive effect was identified, suggesting the presence of structural constraints such as seasonality, institutional fragmentation and insufficient integration of creative policies into tourism strategies.

These empirical findings are summarised in Table 43, which presents the results of hypothesis testing for H1 and its sub-hypotheses.

Table 43. Empirical results of Hypothesis H1 and its sub-hypotheses testing

Hypothesis description	***Status***	***Explanation***
H1: Creative economy has a significant positive effect on the economic performance of tourism.	Partially Rejected	European creativity index is not statistically significant in most countries; a positive contribution was identified only in less developed countries for the number of tourist nights, while in developed countries the creative sector operates indirectly through innovation and product differentiation.
H1.1: The European Creativity Index (EU-CEI) has a significant positive effect on the total contribution of travel and tourism to GDP.	Rejected	Panel analysis and GMM results show that the European Creativity Index is not statistically significant for TTTGDP in most countries; in Mediterranean countries, a negative impact was observed, suggesting that high creative capacity does not necessarily increase the short-term contribution of tourism to GDP.

Hypothesis description	***Status***	***Explanation***
H1.2: The European Creativity Index (EU-CEI) has a significant positive effect on the tourist overnight stays.	Partially Accepted	In less developed countries, the European creativity index has a positive and statistically significant effect; in developed countries and Mediterranean regions, this contribution is not significant, indicating that the creative sector operates through indirect channels and long-term effects.

Source: Author's research

These results point to several key conclusions:

1. **Partial confirmation in less developed countries** – creative capacity can have a tangible, measurable impact on tourism demand when there is room for institutional and market development.
   In countries with lower levels of institutional and market development, creative capacity demonstrates a concrete and measurable influence on the growth of tourism demand. This effect arises from the fact that creative industries in such contexts often act as catalysts for innovation and diversification of offerings, particularly in destinations seeking alternative sources of growth and international recognition (Richards, 2019; Kačerauskas and Štreimikienė, 2020; Papadaki et al., 2021).

2. **Incomplete confirmation in developed countries** – the creative sector operates through product differentiation, cultural innovation and long-term added value, which are not reflected in short-term macroeconomic indicators.
   In more mature economies, the creative sector proves to be a significant factor for long-term development, yet its contribution is more difficult to quantify using short-term macroeconomic indicators. Creative activities in these environments primarily function through the differentiation of tourism offerings, cultural innovations and the creation of symbolic destination capital, resulting in sustainable but slower-to-measure effects (Florida, 2014; Pratt, 2021; OECD, 2020).

3. **Negative effects in Mediterranean countries** – these reflect seasonality, market fragmentation and limited institutional integration of the creative sector into tourism policies, highlighting the need for strategic planning and coordinated investment.
   In the Mediterranean context, the effects of the creative sector on tourism remain limited due to pronounced seasonality, market fragmentation and insufficient institutional integration of creative policies into tourism strategies. These findings point to the need to strengthen strategic planning, coordinate investment and align cultural, creative and tourism policies at both national and regional levels (OECD, 2020; Betlej and Kačerauskas, 2021; Arcos-Pumarola et al., 2023).

Hypothesis H1 is partially confirmed, showing that in less developed countries the creative sector is directly linked to tourism demand, whereas in developed countries it operates through long-term, indirect effects.
Although creativity is not directly reflected in short-term economic fluctuations, its potential contribution to tourism is more likely to emerge through long-term structural transformations that enable its better recognition—both directly and indirectly—and deeper integration into tourism strategies.

The findings confirm that the creative economy and tourism are interconnected, but that their relationship is complex, heterogeneous and strongly influenced by national development contexts. While creativity does not consistently translate into short-term economic gains in tourism, its strategic value emerges in the form of long-term structural transformation, destination differentiation and enhanced innovation capacity.

In conclusion, this dissertation demonstrates that the European Creativity Index (EU-CEI) represents a valuable analytical tool for measuring creative potential and exploring its relationship with tourism performance. Although the direct statistical impact on tourism outcomes is limited in several contexts, the results highlight the importance of creativity as a latent development factor with significant long-term implications.

Finally, the research opens several avenues for future research, particularly in relation to disaggregated analysis of creative industries, digital transformation and cultural innovation. Future studies should also incorporate broader institutional and macroeconomic factors, such as governance quality, infrastructure development, political stability and cultural policy frameworks, in order to further clarify the mechanisms through which creativity influences tourism development.

8.2. The scientific contribution of the research

The scientific contribution of this research is reflected in its theoretical advancement, methodological innovation and empirical application within the fields of the creative economy and tourism. The research extends existing knowledge by offering a more integrated understanding of how creative capacity shapes tourism development, while simultaneously proposing a robust framework for its measurement and empirical validation.

1. Theoretical contribution

The research advances the understanding of the interdependence between the creative economy and tourism by conceptualising their relationship as a multidimensional system embedded in economic, institutional, cultural and social contexts, with implications for long-term destination sustainability.

It consolidates and systematises key thematic areas of sustainable destination development, including cultural heritage preservation, governance quality, social inclusion, technological integration, green tourism practices, social entrepreneurship and stakeholder collaboration, thereby providing a more structured interpretation of the complexity of the tourism–creativity nexus.

A conceptual model is developed that explains the interaction between creative industries and tourism, highlighting their combined contribution to economic performance, cultural vitality and social sustainability.

The research introduces a composite measurement framework in the form of the European Creativity Index (EU-CEI), structured around three dimensions - enabling environment, creative base and cultural vibrancy - allowing a comprehensive assessment of creative potential and its link to tourism development outcomes. The framework reflects a conceptual shift towards a multidimensional understanding of creativity, integrating economic, institutional, cultural and social determinants such as governance quality, inclusiveness, trust, openness and cultural participation, rather than relying solely on output-based indicators.

2. Key methodological innovation

This research develops an integrated methodological framework that combines qualitative validation through expert input, composite index construction (European Creativity Index (EU-CEI)) and advanced econometric techniques, including panel regression and GMM analysis. By integrating these complementary approaches, the research moves beyond single-method and predominantly descriptive frameworks that characterize much of the existing literature on creativity and tourism.

A key methodological contribution lies in the design of a Delphi-informed indicator selection process, which reveals a broader conceptual understanding of creativity measurement. Rather than relying solely on output-based, quantitative indicators, the resulting framework incorporates a multidimensional set of dimensions capturing enabling conditions such as governance quality, inclusiveness, trust, openness and cultural participation, alongside more traditional structural indicators. This ensures a more balanced representation of both measurable outcomes and underlying creative capacities.

The construction of the European Creativity Index (EU-CEI) provides a structured and comparable measurement tool based on three dimensions - enabling environment, creative base and cultural vibrancy - allowing for consistent cross-country analysis within the EU context. When combined with panel econometrics and GMM estimation, the framework enables not only static comparisons but also dynamic assessment of the relationship between creative capacity and tourism performance, while addressing potential issues of endogeneity and unobserved heterogeneity.

The integration of qualitative validation, composite index development and dynamic econometric modelling represents a significant methodological advancement, offering a more rigorous and holistic approach to examining how creative capital is translated into tourism outcomes over time.

3. Applied Contribution

The research provides an empirical foundation for understanding how the creative sector shapes tourism performance, with particular emphasis on long-term structural dynamics and strategic destination development.

It highlights the importance of engaging local communities and creative stakeholders as co-creators of tourism experiences, thereby strengthening social cohesion, safeguarding cultural heritage and enhancing value creation at the destination level.

The findings emphasize the practical relevance of aligning creative industries with tourism development strategies, reinforcing their joint potential to support sustainable destination development and offering a basis for more informed policy design and future research in creative tourism.

8.3. Limitations and suggestions for future research

Although this research makes a significant contribution to the fields of the creative economy and sustainable tourism, several limitation*s* should be acknowledged when interpreting the results. First, the availability and comparability of reliable data remain a key constraint, as the construction of the European Creativity Index relies on heterogeneous sources with differing methodological standards across EU member states. These differences inevitably affect the precision of the index and limit full cross-country comparability.

Accordingly, the European Creativity Index (EU-CEI), while developed on the basis of the best available data, reflects the limitations of existing statistical systems, which constrain its overall accuracy and comprehensiveness. In addition, the empirical findings suggest that creativity in tourism operates primarily through indirect and long-term mechanisms, while its effects on short-

term economic indicators - such as GDP contribution or tourist overnight stays - are often limited or statistically insignificant, particularly in more developed economies. This confirms that the integration of creative industries into tourism systems is a gradual process dependent on broader structural and institutional conditions. From a methodological perspective, the use of panel data techniques, although appropriate for comparative analysis across countries, does not fully capture the complexity and dynamic evolution of the creative sector. This limitation is particularly relevant in the context of rapid technological change and increasing global interconnectedness. Differences in institutional frameworks, infrastructure and levels of creative sector development further reduce the generalisability of the findings across different national contexts.

Building on these limitations, several directions for future research can be identified. First, future studies should incorporate more dynamic and multidimensional indicators of the creative economy, capturing economic, cultural, digital and social dimensions in a more integrated way. Second, combining quantitative and qualitative methodologies would allow for a deeper understanding of creative processes at the destination level, including cultural authenticity, visitor experience and local participation. Third, greater emphasis should be placed on comparative and regional analyses between more and less developed creative economies, in order to better understand structural differences and policy-relevant patterns. Fourth, future research should further explore the indirect effects of creativity using advanced modelling techniques such as Structural Equation Modelling (SEM) or path analysis, which enable the analysis of both direct and mediated relationships between variables. In addition, future studies should pay greater attention to the role of digital transformation, education systems and social inclusion in shaping creative tourism development. Emerging technologies such as virtual and augmented reality, as well as new forms of cultural and creative content, are increasingly influencing tourism experiences and destination competitiveness.

Despite improvements in statistical data availability, significant challenges remain in measuring creative industries in a consistent and comparable way. Differences in definitions, classification systems and national statistical practices continue to limit cross-country comparability, highlighting the need for harmonised methodological standards. In this context, future research should prioritise the development of more robust and standardised measurement frameworks, supported by clustering techniques and advanced econometric approaches.

Future research should broaden its analytical scope beyond the economic dimension of sustainable tourism to include environmental, social and institutional factors. Regional heterogeneity within the EU deserves particular attention, as differences in institutional capacity, policy priorities and creative sector maturity significantly shape tourism outcomes. In the long term, research should also focus on the role of the creative economy in shaping destination identity, environmental sustainability and cultural value creation, while further exploring how digital transformation is reshaping contemporary tourism systems.

REFERENCES

Acharya, C. (2023). The culture shock of COVID-19: A study to understand the effects of pandemic on the art and culture industry. In Reshaping the Business World Post-COVID-19: Management Strategies for Sustainable Behavior Change (1st ed.). (pp. 127-149). Apple Academic Press. https://doi.org/10.1201/9781003372424

Acs, Z. J., & Megyesi, M. I. (2009). Creativity and industrial cities: A case study of Baltimore. *Entrepreneurship & Regional Development*, *21*(4), 421–439. https://doi.org/10.1080/08985620903020086

Adler E, Clark R.(2008) How It's Done: An Invitation to Social Research. 3. Belmont: Thompson-Wadsworth.

Adnan, N., Rashed, M. F., & Ali, W. (2024). Embracing the metaverse: cultivating sustainable tourism growth on a global scale. Current Issues in Tourism, 1–20. https://doi.org/10.1080/13683500.2024.2390678

Adorno, T. W., & Horkheimer, M. (1944). The Culture Industry: Enlightenment as Mass Deception. In Dialectic of Enlightenment (pp. 120–167). Fischer Verlag. https://share.google/aJRCmk14ZZqhpDDjK

Adorno, T.W. (1991). The Culture Industry: Selected Essays on Mass Culture (J.M. Bernstein, Ed.) (2nd ed.). Routledge. https://doi.org/10.4324/9781003071297

AlexyM., KáčerM., & Rehák Štefan. (2018). Creative capacity of European countries. *Hungarian Geographical Bulletin*, *67*(3), 201-222. https://doi.org/10.15201/hungeobull.67.3.1

Aman, E. E., Papp-Váry, Á. F., Kangai, D., & Odunga, S. O. (2024). Building a Sustainable Future: Challenges, Opportunities and Innovative Strategies for Destination Branding in Tourism. Administrative Sciences, 14(12), 312. https://doi.org/10.3390/admsci14120312

Andersson, D.E. and Andersson, Å.E. (2006), The Economics of Experiences, the Arts and Entertainment, Edward Elgar Publishing, Cheltenham.

Arcos-Pumarola, J., Paquin, A. G., & Sitges, M. H. (2023). The use of intangible heritage and creative industries as a tourism asset in the UNESCO creative cities network. Heliyon, 9(1). https://doi.org/10.1016/j.heliyon.2023.e13106

Arango-Morales, A. J., Delgado-Cruz, A., & Tamayo-Salcedo, A. L. (2020). Digital Competence of Tourism Students: Explanatory Power of Professional Training. European Journal of Investigation in Health, Psychology and Education, 10(1), 310-326. https://doi.org/10.3390/ejihpe10010024

Arellano, M., Bond, S., (1991) Some tests of specification for panel data: monte carlo evidence and an application to employment equations. *The Review of Economic Studies*, Volume 58, Issue 2, April 1991, Pages 277–297, https://doi.org/10.2307/2297968

Arellano, M., Bover, O., 1995. Another look at the instrumental-variable estimation of error-components models. Journal of Econometrics. 68 (1), 29-51. https://doi.org/10.1016/0304-4076(94)01642-D

Arrow, K. J., Dasgupta, P., Goulder, L. H., Mumford, K. J., & Oleson, K. (2012). Sustainability and the measurement of wealth. Environment and development economics, 17(3), 317-353.

Asur, S., & Huberman, B. A. (2010, August). Predicting the future with social media. In 2010 IEEE/WIC/ACM international conference on web intelligence and intelligent agent technology (Vol. 1, pp. 492-499). IEEE. https://doi.org/10.1109/WI-IAT.2010.63

Ateljevic, I. (2020). Transforming the (tourism) world for good and (re)generating the potential 'new normal.' Tourism Geographies, 22(3), 467–475. https://doi.org/10.1080/14616688.2020.1759134

Azhana, F. T. I., Setiawan, M., Susanti, L., Zakaria, M. R., Syafaat, R. R. A. K., & Agustiningsih, N. (2024). Concept of social entrepreneurship in the development of creative economy tourism in Indonesia (Case study: Cirendeu Village). IOP Conference Series: Earth and Environmental Science, 1324(1), 012073. https://doi.org/10.1088/1755-1315/1324/1/012073

B. Joseph Pine, I. I., & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review*, *76*(4), 97-106.

Backman, M., & Nilsson, P. (2018). The role of cultural heritage in attracting skilled individuals. Journal of Cultural Economics, 42, 111-138.; https://link.springer.com/article/10.1007/s10824-016-9289-2

Bakhshi, H., Frey, C. B., & Osborne, M. (2015). Creativity vs. robots. Nesta. In Technical Report. http://catalogue.boekman.nl/pub/P22-0489.pdf

Baltagi, B.H. (2021). Test of Hypotheses with Panel Data. In: Econometric Analysis of Panel Data. Springer Texts in Business and Economics. Springer, Cham. https://doi.org/10.1007/978-3-030-53953-5_4

Bacsi Z (2017) Tourism and Diversity. Deturope: 9: 25-57. https://doi.org/10.32725/det.2017.011

Baixinho, A., Santos, C., Couto, G., Albergaria, I. S. d., Silva, L. S. d., Medeiros, P. D., & Simas, R. M. N. (2020). Creative Tourism on Islands: A Review of the Literature. Sustainability, 12(24), 10313. https://doi.org/10.3390/su122410313

Baixinho, C., Henriques, C., & Costa, C. (2021). Creative tourism: Concept, categories and experiences. Journal of Tourism Research, 12(15), 1221–1238. https://doi.org/10.3390/su14159009

Bakas, F. (2014). Tourism, female entrepreneurship and gender: Crafting new economic realities in rural Greece. PhD thesis. Otago University, New Zealand. http://hdl.handle.net/10523/5381.

Bakas, F. E., Duxbury, N., & Albino, S. (2021). Creative tourism microentrepreneurs in Portugal. In Tourism microentrepreneurship (pp. 79-91). Emerald Publishing Limited. https://doi.org/10.1108/S2042-144320210000012007

Bakhshi, H., & McVittie, E. (2009). Creative supply-chain linkages and innovation: Do the creative industries stimulate business innovation in the wider economy? *Innovation*, *11*(2), 169–189. https://doi.org/10.5172/impp.11.2.169

Bakhshi, H., McVittie, E., & Simmie, J. (2008). Creating Innovation: Do the creative industries support innovation in the wider economy? (pp. 1-40). London: Nesta.

Banks, M. (2017). *Creative justice: Cultural industries, work and inequality*. Rowman & Littlefield.

Barker, C. (2004). The SAGE Dictionary of Cultural Studies. SAGE Publications. https://us.sagepub.com/en-us/nam/the-sage-dictionary-of-cultural-studies/book219252#preview

Baumol, W. J., & Bowen, W. G. (1965). Performing Arts: The Economic Dilemma. Twentieth Century Fund. https://www.scribd.com/document/759913867/BAUMOL-y-BOWEN-Performin-Arts-The-Economic-Dilemma

Bell, D., & Jayne, M. (2010). The creative countryside: Policy and practice in the UK rural creative economy. Journal of Rural Studies, 26(3), 209–218. https://doi.org/10.1016/j.jrurstud.2010.03.001

Benhaida, S., Safaa, L., Perkumienė, D., & Labanauskas, G. (2024). Creative Tourism: Two Decades of Conceptual Evolution and Characterization. Administrative Sciences, 14(8), 172. https://doi.org/10.3390/admsci14080172

Betlej, A., & Kačerauskas, T. (2021). Urban Creative Sustainability: The Case of Lublin. Sustainability, 13(7), 4072. https://doi.org/10.3390/su13074072

Bell, D., & Jayne, M. (2009). Small cities? Towards a research agenda. International journal of urban and regional research, 33(3), 683-699. https://doi.org/10.1111/j.1468-2427.2009.00886.x

Bianchini, F., & Parkinson, M. (Eds.). (1993). Cultural policy and urban regeneration: the West European experience. Manchester University Press.

Biddle, C., & Schafft, K. A. (2015). Axiology and anomaly in the practice of mixed methods work: Pragmatism, valuation and the transformative paradigm. Journal of mixed methods research, 9(4), 320-334. https://doi.org/10.1177/1558689814533157

Bigne, J. E., Sanchez, M. I., & Sánchez, J. (2001). Tourism image, evaluation variables and after purchase behaviour: inter-relationship. Tourism management, 22(6), 607-616. https://doi.org/10.1016/S0261-5177(01)00035-8

Bilton, C., & Cummings, S. (2010). Creative strategy: Reconnecting business and innovation. London: Wiley-Blackwell.

Binkhorst, E. (2005). A tourism experience: Co-creation and new tourism realities. Tourism Recreation Research, 30(2), 9–15. https://doi.org/10.1080/02508281.2005.11081288

Binkhorst, E. (2007). Reassembling the tourist experience: The case of creative tourism. Tourism Analysis, 12(4), 317–324. https://doi.org/10.3727/108354207783249308

Binkhorst, E. (2008). From tourist to co-creator: Challenges and opportunities of co-creation in tourism. In Tourism Innovation Conference Proceedings (pp. 45–55).

Binkhorst, E., & Den Dekker, T. (2009). Agenda for co-creation in tourism experience development. Journal of Hospitality Marketing & Management, 18(2–3), 311–327. https://doi.org/10.1080/19368620802594193

Boal-San Miguel, I., & Herrero-Prieto, L. C. (2020). Reliability of Creative Composite Indicators with Territorial Specification in the EU. Sustainability, 12(8), 3070. https://doi.org/10.3390/su12083070

Bobirca, A., & Draghici, A. (2011). Creativity and economic development. *World Academy of Science, Engineering and Technology*, *59*(5), 887-892.

Boix, R., De-Miguel-Molina, B. & Hervas-Oliver, JL. (2013). Creative service business and regional performance: evidence for the European regions. Serv Bus 7, 381–398. https://doi.org/10.1007/s11628-012-0165-7

Boix-Domenech, R., & Soler-Marco, V. (2017). Creative service industries and regional productivity. Papers in Regional Science, 96(2), 261-280. https://doi.org/10.1111/pirs.12187

Boix-Domenech, R., Peiró-Palomino, J., & Rausell-Köster, P. (2021). Creative industries and productivity in the European regions. Is there a Mediterranean effect?. Regional Science Policy & Practice, 13(5), 1546-1564. https://doi.org/10.1111/rsp3.12395

Boix-Domènech, R., Rausell-Köster, P. (2018). The Economic Impact of the Creative Industry in the European Union. In: Santamarina-Campos, V., Segarra-Oña, M. (eds) Drones and the Creative Industry. Springer, Cham. https://doi.org/10.1007/978-3-319-95261-1_2

Boswijk. A., Thijssen, J.P.T. and Peelen , E. (2005). A New Perspective on the Experience Economy: Meaningful Experiences. Pearson Education, Amsterdam.

Booysen, F. (2002). An overview and evaluation of composite indices of development. Social indicators research, 59, 115-151.

Borin, E., Donato, F. (2022). Cultural Ecosystem Approaches as Key for New Development Paths: A Reflection on Management and Governance Implications. In: Borin, E., Cerquetti, M., Crispí, M., Urbano, J. (eds) Cultural Leadership in Transition Tourism. Contributions to Management Science. Springer, Cham. https://doi.org/10.1007/978-3-031-14121-8_2

Borowiecki, K.J., Fresa, A., & Martín Civantos, J.M. (Eds.). (2024). Innovative Cultural Tourism in European Peripheries (1st ed.). Routledge. https://doi.org/10.4324/9781003422952

Borre, J. R., Romero, G. C., Gutiérrez, J. M., & Ramírez, J. (2023). Discussion of the aspects of the cultural and creative industries that impact on sustainable development: a systematic review. Procedia Computer Science, 224, 532-537. https://doi.org/10.1016/j.procs.2023.09.077

Boschma, R. A., & Fritsch, M. (2009). Creative class and regional growth: Empirical evidence from seven European countries. *Economic geography*, *85*(4), 391-423. https://doi.org/10.1111/j.1944-8287.2009.01048.x

Bourdieu, P., & Darbel, A. (2003). The love of art: European art museums and their public. Stanford University Press.

Bowen H, Moesen W, Sleuwaegen L. (2008.) A composite index of the creative economy, review of business and economic literature. Rev Bus Econ Lit. 4:375–397.; https://lirias.kuleuven.be/retrieve/110974

Butler, R. W. (2006). The Tourism Area Life Cycle, Vol. Clevedon: Channel View.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brida, J. G., Cortes-Jimenez, I., & Pulina, M. (2014). Has the tourism-led growth hypothesis been validated? A literature review. Current Issues in Tourism, 19(5), 394–430. https://doi.org/10.1080/13683500.2013.868414

Briggs, J. (2005). The role of creative skills in tourism experiences. Tourism Management Review, 11(3), 45–60.

British Council. (2010). Mapping the creative industries: A toolkit. https://www.scribd.com/document/381338246/English-mapping-the-creative-industries-a-toolkit-2-2-pdf

Bruner, J. S. (1962). The conditions of creativity. In H. Gruber, G. Terrell, & M. Wertheimer (Eds.), Contemporary approaches to creative thinking (pp. 1–30). New York, NY: Atherton. https://doi.org/10.1037/13117-001

Bruno, F., Ricca, M., Lagudi, A., Kalamara, P., Manglis, A., Fourkiotou, A., Papadopoulou, D., & Veneti, A. (2020). Digital Technologies for the Sustainable Development of the Accessible Underwater Cultural Heritage Sites. Journal of Marine Science and Engineering, 8(11), 955. https://doi.org/10.3390/jmse8110955

Brouder, P. (2012). Creative Outposts: Tourism's Place in Rural Innovation. Tourism Planning & Development, 9(4), 383–396. https://doi.org/10.1080/21568316.2012.726254

Campos, A., Mendes, J., & Costa, C. (2015). Co-creation experiences in creative tourism. Annals of Tourism Research, 50, 1–15. https://doi.org/10.1016/j.annals.2014.11.002

Cano-Guervos, R., Chica-Olmo, J., Morales, J. G. G., Murillo, F. H. S., Olivas, M. C., Tunio, M. N., & Eraqi, A. M. Z. (2024). Sustainability in Creative Industries. Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-50894-3

Carrasco, I., Castillo-Valero, J. S., & Pérez-Luño, A. (2019). Wine tourism and wine vacation as a cultural and creative industry: the case of the Bullas wine route. Cultural and Creative Industries: A Path to Entrepreneurship and Innovation (Ed. Elias G. Carayannis), 181-195. https://doi.org/10.1007/978-3-319-99590-8_10

Carvalho, J., Remoaldo, P., & Mendes, J. (2019). Theoretical foundations of creative tourism. Tourism and Hospitality Research, 19(3), 281–295. https://doi.org/10.1177/1467358419825693

Castells, M. (1996). The information age (Vol. 1, No. s 81). Blackwell Publishers: Oxford.

Castells, M. (2014). Technopoles of the world: The making of 21st century industrial complexes. Routledge. https://doi.org/10.4324/9781315832203

Castro-Higueras, A., & de Aguilera-Moyano, M. (2016). The cultural and creative industry potential index. Fonseca, Journal of Communication, (13), 129-146.; http://dx.doi.org/10.14201/fjc201613129146

Castro-Higueras, A., & de Aguilera-Moyano, M. (2018). Assessing creativity: an index proposal. Creative Industries Journal, 11(1), 102-118.; https://doi.org/10.1080/17510694.2018.1434371

Caves, R. E. (2000). Creative industries: Contracts between art and commerce (No. 20). Harvard university press. https://doi.org/10.1023/A:1013346516020

Cerisola, S. (2018). Creativity and local economic development: The role of synergy among different talents. Papers in Regional Science, 97(2), 199-215.; https://doi.org/10.1111/pirs.12254

Çetindamar, D., & Günsel, A. (2012). Measuring the Creativity of a City: A Proposal and an Application. European Planning Studies, 20(8), 1301-1318.; https://doi.org/10.1080/09654313.2012.680583

Chaloupková, M., Kunc, J., & Dvořák, Z. (2018). The creativity index growth rate in the Czech republic: A spatial approach. Geographia Technica, 13(1), 30–40. https://doi.org/10.21163/GT_2018.131.04

Chapain, C., & De Propris, L. (2009). Drivers and Processes of Creative Industries in Cities and Regions. Creative Industries Journal, 2(1), 9–18. https://doi.org/10.1386/cij.2.1.9/1

Chapain, C., Cooke, P., De Propris, L., MacNeill, S., & Mateos-Garcia, J. (2010). Creative clusters and innovation. Putting creativity on the map. London: NESTA.; http://designophy.com/uploadedfiles/pdf/2010/12919724366007_nesta_creative_clusters_report.pdf

Chapain, C., & Comunian, R. (2009). Enabling and Inhibiting the Creative Economy: The Role of the Local and Regional Dimensions in England. Regional Studies, 44(6), 717–734. https://doi.org/10.1080/00343400903107728

Chaterina, J., & Zorrilla, P. (2005). Encouraging the implication of shops in the city by means of retail associationism. The case of Bilbao. Cuadernos de Gestión, 5 (1), 79-87. https://doi.org/10.5295/cdg.19174jc

Choi, H. C., & Sirakaya, E. (2006). Sustainability indicators for managing community tourism. Tourism management, 27(6), 1274-1289. https://doi.org/10.1016/j.tourman.2005.05.018

Choi, J. G. (2003). Developing an economic indicator system (a forecasting technique) for the hotel industry. International Journal of Hospitality Management, 22(2), 147-159. https://doi.org/10.1016/S0278-4319(03)00015-X

Chugh, S. R. (2018). Creative tourism: An endogenous approach to developing culturally and environmentally sustainable tourism. International Journal of Hospitality and Tourism Systems, 11(1), 60-66.

Cloke, P. (2007). Creative tourism and rural development. Tourism Geographies, 9(3), 291–308. https://doi.org/10.1080/14616680701479968

Comunian, R., Faggian, A., Heinonen, J., & Wilson, N. (2022). Introduction to a modern guide to creative economies. In A Modern Guide to Creative Economies (pp. 1-19). Edward Elgar Publishing.

Conference Board of Canada & Statistics Canada. (2008). Valuing culture: Measuring and understanding Canada's creative economy. Conference Board of Canada.

Consultancy, F. C. (2010). Introducing the Creative Grid: Connecting Creative Places for Global Competitiveness. Tom Fleming Creative Consultancy: London, UK.

Cooke, P. N., & Lazzeretti, L. (Eds.). (2008). Creative cities, cultural clusters and local economic development. Edward Elgar Publishing. https://www.elgaronline.com/view/9781847202680.xml

Correia, C. M., & Costa, J. S. (2014). Measuring creativity in the EU member states. Investigaciones Regionales, 30(1), 7–26. http://www.aecr.org/images/ImatgesArticles/2014/12/01Correia.pdf

Collis, C., Freebody, S., & Flew, T. (2011). Seeing the Outer Suburbs: Addressing the Urban Bias in Creative Place Thinking. Regional Studies, 47(2), 148–160. https://doi.org/10.1080/00343404.2011.630315

Creative Metropoles (2012) Creative Metropoles: Situation Analysis of 11 Cities. Final report. www.baltmet.org/uploads/filedir/ cm_finalreport_15012010.pdf

Cronbach, L. J. (1957). The two disciplines of scientific psychology. American psychologist, 12(11), 671.

Cunningham, S. (2002). From cultural to creative industries: Theory, industry and policy implications. Media International Australia, 102(1), 54–65.

Cunningham, S., & Craig, D. (2017). Being "really real" on YouTube: Authenticity, community and digital labor. Media International Australia, 164(1), 71–81. https://doi.org/10.1177/1329878X17709020

Cutler & Company. (1994). Creative Nation: Commonwealth Cultural Policy. Australian Government Publishing Service.

Curtis, L., Edwards, C., Fraser, K. L., Gudelsky, S., Holmquist, J., Thornton, K., & Sweetser, K. D. (2010). Adoption of social media for public relations by nonprofit organizations. Public relations review, 36(1), 90-92. https://doi.org/10.1016/j.pubrev.2009.10.003

Challenge, C. C., Romein, A., & Trip, J. J. (2010). The creative production and consumption milieu. Delft University of Technology.

Chan, N. L., & Guillet, B. D. (2011). Investigation of Social Media Marketing: How Does the Hotel Industry in Hong Kong Perform in Marketing on Social Media Websites? Journal of Travel & Tourism Marketing, 28(4), 345–368. https://doi.org/10.1080/10548408.2011.571571

Clark, D. (2004). Urban world/global city. Routledge. https://doi.org/10.4324/9780203015193

Dalkey, N. C., Brown, B., & Cochran, N. (1969). The delphi method, III. Use of Self Ratings to Improve Group Estimates. Rand Corp., Santa Monica, CA.

Dasgupta, P. (2014). Measuring the wealth of nations. Annu. Rev. Resour. Econ., 6(1), 17-31. https://doi.org/10.1146/annurev-resource-100913-012358

Dasgupta, P. (2021). The economics of biodiversity: the Dasgupta review. Hm Treasury.

De Figueiredo, J. L., Santos Vieira de Jesus, D., Tavares Robaina, D., & Lohmann Couri, C. (2019). The development potential index of creative economy for Brazilian federal state capitals. Creative Industries Journal, 12(2), 185–203. https://doi.org/10.1080/17510694.2019.1610344

De Munck, V. C., & Bennardo, G. (2019). Disciplining culture: A sociocognitive approach. Current Anthropology, 60(2), 174-193. https://doi.org/10.1086/702470

Della Lucia, M., & Segre, G. (2017). Intersectoral local development in Italy: the cultural, creative and tourism industries. International journal of culture, tourism and hospitality research, 11(3), 450-462. http://hdl.handle.net/2318/1650941

De-Miguel-Molina, B., De-Miguel-Molina, M., & Rausell, P. (2012). The impact of creative industries in the European economy. European Urban and Regional Studies, 19(2), 215–233. https://doi.org/10.1080/09654313.2012.680579

Den Dekker, T., & Tabbers, E. (2012). Creative tourism as a tool for local development. International Journal of Cultural Policy, 18(3), 1–12. https://doi.org/10.1080/10286632.2011.592500

DeNatale, D., & Wassall, G. H. (2007). The creative economy: A new definition. New England Foundation for the Arts.

Department for Culture, Media and Sport. (1998). Creative Industries Mapping Document. DCMS. London. http://www.creativitycultureeducation.org/creative-industries-mapping-document-1998

Department for Culture, Media and Sport. (2006). Annual report 2006. https://www.gov.uk/government/publications/department-for-culture-media-and-sport-departmental-annual-report-2006

Department for Culture, Media and Sport. (2008). Creative Britain: New talents for the new economy. London: Department for Culture, Media and Sport. https://static.a-n.co.uk/wp-content/uploads/2016/12/Creative-Britain-new-talents-for-the-new-economy.pdf

Department for Culture, Media and Sport. (2013). Creative Industries Economic Estimates. DCMS. London.

Dewey, J. (1938). Logic: The Theory of Inquiry. New York: Henry Holt and Company.

Dias, Á., González-Rodríguez, M. R., & Patuleia, M. (2021). Creative tourism destination competitiveness: an integrative model and agenda for future research. *Creative Industries Journal*, *16*(2), 180–203. https://doi.org/10.1080/17510694.2021.1980672

Donegan, M., Drucker, J., Goldstein, H., Lowe, N., & Malizia, E. (2008). Which Indicators Explain Metropolitan Economic Performance Best? Traditional or Creative Class. Journal of the American Planning Association, 74(2), 180–195. https://doi.org/10.1080/01944360801944948

Du Gay, P., & Pryke, M. (Eds.) (2002). Cultural economy: Cultural analysis and commercial life. SAGE Publications Ltd, https://doi.org/10.4135/9781446218440

Durman, T. Y, & Nadlifatin, R. (2024). Adopting green innovation in tourism SMEs: Integrating proenvironmental planned behavior and TOE model. Interdisciplinary Journal of Information, Knowledge and Management, 19, Article 29. https://doi.org/10.28945/5369

Duxbury, N., & Campbell, H. (2011). Developing and revitalizing rural communities through arts and culture. Small cities imprint, 3(1). https://smallcities.tru.ca/index.php/cura/article/download/39/75

Duxbury, N. (2020). Catalyzing creative tourism in small cities and rural areas in Portugal: The CREATOUR approach. In K. Scherf (Ed.), Creative tourism and sustainable development in smaller communities (pp.). Calgary: University of Calgary Press. https://doi.org/10.2307/j.ctv1ks0d4d.5

Duxbury, N., & Richards, G. (2019a). Creative tourism: Current state and future prospects. Annals of Tourism Research, 77, 46–61. https://doi.org/10.1016/j.annals.2019.04.004

Duxbury, N., & Richards, G. (2019b). Towards a research agenda for creative tourism: Developments, diversity and dynamics. In N. Duxbury & G. Richards (Eds.), A research agenda for creative tourism (pp. 1–14). Cheltenham, UK: Edward Elgar Publishing.

Duxbury, N., Bakas, F. E., Vinagre de Castro, T., & Silva, S. (2021e). Creative Tourism Development Models towards Sustainable and Regenerative Tourism. Sustainability, 13(1), 2. https://doi.org/10.3390/su13010002

Duxbury, N., Carvalho, C. P., & Albino, S. (2021a). An introduction to creative tourism development: articulating local culture and travel. In Creative tourism: Activating cultural resources and engaging creative travellers (pp. 1-11). Wallingford UK: CABI. https://doi.org/10.1079/9781789243536.0001

Duxbury, N., Carvalho, J., & Albino, V. (2021b). Creative tourism as a driver of sustainability. Tourism Planning & Development, 18(5), 555–573. https://doi.org/10.1080/21568316.2021.1908652

Duxbury, N., Carvalho, J., & Albino, V. (2021c). Sustainable development in creative tourism. Sustainability, 13(15), 1–20. https://doi.org/10.3390/su13158405

Duxbury, N., Carvalho, J., Bakas, F., de Castro, C., & Silva, M. (2021d). Collaborative approaches for sustainable creative tourism. Journal of Sustainable Tourism, 29(12), 2012–2031. https://doi.org/10.1080/09669582.2021.1883512

Duxbury, N., Silva, S., & de Castro, T. V. (2019). Creative tourism development in small cities and rural areas in Portugal: Insights from start-up activities. In Creating and managing experiences in cultural tourism (pp. 291-304). https://doi.org/10.1142/9789813233683_0018

Dwyer, L. (2017). Saluting while the ship sinks: the necessity for tourism paradigm change. Journal of Sustainable Tourism, 26(1), 29–48. https://doi.org/10.1080/09669582.2017.1308372

Dziedzic, E., & Kaczmarek, J. (2016). Tourism in Creative Economy. Folia Turistica, 41(null), 137-163. https://doi.org/10.5604/01.3001.0010.4006.

Einali, H., Dehghan, R., & Rasekhi, M. (2019). Sustainability in creative tourism development. Journal of Tourism Management, 70, 123–136. https://doi.org/10.1016/j.tourman.2018.08.009

European Commission (2007): Communication on a European Agenda for Culture in a Globalising World.http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0242:FIN:EN (accessed 5 March 2025).

European Commission (2010): Unlocking the Potential of Cultural and Creative Industries. http://ec.europa.eu/culture/documents/greenpaper_creative_industries _en.pdf (accessed 6 March 2025).

European commission (2024). 2025 Annual Work Programme for the implementation of the Creative Europe Programme.European commission. https://culture.ec.europa.eu/document/2025-creative-europe-annual-work-programme (accessed 6 March 2025).

European Commission (EC) (2019). Cultural and creative industries. Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs. https://ec.europa.eu/growth/sectors/cultural-creative_en

European Commission, DG Internal Market, Industry, Entrepreneurship and SMEs. (2016). European creative industries ecosystem: Key figures. Publications Office of the European Union.

Evans, G. (2001). Cultural planning: An urban renaissance? Routledge.

Evans, G. (2009). Creative cities, creative spaces and urban policy. Urban Studies, 46(5–6), 1003–1040.

EY (Ernst & Young). (2014). Creating growth: Measuring cultural and creative markets in the EU.

Faludi, J. (2019). The paradigm of the creative class in regional and urban development revisited. An overview. Corvinus Journal of Sociology and Social Policy, 10(2), 167-188. https://unipub.lib.uni-corvinus.hu/5658/1/329-1720-2-PB.pdf

Flew, T. (2010). Toward a Cultural Economic Geography of Creative Industries and Urban Development: Introduction to the Special Issue on Creative Industries and Urban Development. The Information Society, 26(2), 85–91. https://doi.org/10.1080/01972240903562704

Felsenstein, D., & Fleischer, A. (2003). Local Festivals and Tourism Promotion: The Role of Public Assistance and Visitor Expenditure. Journal of Travel Research, 41(4), 385-392. https://doi.org/10.1177/0047287503041004007

Flew, T. (2012). The creative industries: Culture and policy (2nd ed.). London: SAGE.

Flew, T. (2013). Global creative industries. John Wiley & Sons.

Flew, T., & Cunningham, S. (2010). Creative Industries after the First Decade of Debate. The Information Society, 26(2), 113–123. https://doi.org/10.1080/01972240903562753

Florida R, Mellander C, King K (2015) Creativity and Prosperity: T he Global Creativity Index 2015. Martin Prosperity Institute. Available at : www-2.rotman.utoronto.ca (accessed 20 March 2024).

Florida, R. (2002). The rise of the creative class: And how it's transforming work, leisure, community and everyday life. New York, NY: Basic Books. http://creativeclass.com.

Florida, R., Mellander, C., & Stolarick, K. (2008). Inside the black box of regional development—human capital, the creative class and tolerance. Journal of economic geography, 8(5), 615-649. https://doi.org/10.1093/jeg/lbn023

Florida, R. (2017). The new urban crisis: How our cities are increasing inequality, deepening segregation and failing the middle class-and what we can do about it. Basic books.

Florida, R. (2019). The rise of the creative class. Basic books.

Florida, R. (2011). The Great Reset. Harper Business.

Florida, R. (2014). The Creative Class and Economic Development. Economic Development Quarterly, 28(3), 196-205. https://doi.org/10.1177/0891242414541693

Florida, R., & Tinagli, I. (2004). “Europe in the Creative Age.” DEMOS, February; https://www.demos. co.uk/files/EuropeintheCreativeAge2004.pdf

Florida, R., Mellander, C., & Stolarick, K. (2008). Inside the black box of regional development—human capital, the creative class and tolerance. Journal of economic geography, 8(5), 615-649. https://doi.org/10.1093/jeg/lbn023

Florida, R., Mellander, C., & King, K. (2015). The global creativity index 2015. Martin Prosperity Institute.; http://GCI-2015-Insight_The-2015-Global-Creativity-Index.pdf

Florida, R., Mellander, C., & Stolarick, K. (2011). Creative class, talent and regional economic growth. Regional Studies, 45(7), 849–864. https://doi.org/10.1080/00343404.2010.523718

Fleming, R. C. (2009). Creative economic development, sustainability and exclusion in rural areas. Geographical review, 99(1), 61-80. https://doi.org/10.1111/j.1931-0846.2009.tb00418.x

Fukuoka Benchmarking Consortium. (2008). Comparison of Cities (Creative City Index).

Future Laboratory. (2007). The Sharpie index: UK top 20 creative towns. www.seco.org.uk/ downloads/creative_industries/Sharpies_Creativity_Index_Report_September_2007.pdf

Galian, C., Licata, M., & Stern-Plaza, M. (2021). Social protection in the cultural and creative sector: Country practices and innovations (No. 28). ILO Working Paper. https://doi:10.54394/LRSH6358

Galloway, S., & Dunlop, S. (2007). A critique of definitions of the cultural and creative industries in public policy. International Journal of Cultural Policy, 13(1), 17–31. https://doi.org/10.1080/10286630601178611

Garcia Suarez, J. A., & Pulido Fernandez, J. I. (2015). Creacity, a proposal for an index to measure the tourist creativity. Application on three urban cultural destinations in Spain. Revista de Estudios Regionales, (103), 69-108.

Gill, R. (2014). Unsustainable creativity? Work and subjectivity in the creative industries. Journal of Cultural Economy, 7(1), 1–19. https://doi.org/10.1080/17530350.2013.777603

Glaeser, E. L., Kolko, J., & Saiz, A. (2001). Consumer city. Journal of Economic Geography, Volume 1, Issue 1, January 2001, Pages 27–50, https://doi.org/10.1093/jeg/1.1.27

Gobo, G. (2008). Re-conceptualizing generalization: Old issues in a new frame. The Sage handbook of social research methods, 193-213.

Gordon, T. J. (1994). The delphi method. Futures research methodology, 2(3), 1-30.

Gouldner, A. W. (1978). The New Class Project, I. Theory and Society, 6(2), 153–203. http://www.jstor.org/stable/657008

Gouvea, R., Kapelianis, D., Montoya, M., & Vora, G. (2020). The creative economy, innovation and entrepreneurship: an empirical examination. *Creative Industries Journal*, *14*, 23 - 62. https://doi.org/10.1080/17510694.2020.1744215

Graci, S. (2012). Collaboration and Partnership Development for Sustainable Tourism. Tourism Geographies, 15(1), 25–42. https://doi.org/10.1080/14616688.2012.675513

Greco, S., Ishizaka, A., Tasiou, M., & Torrisi, G. (2019). On the methodological framework of composite indices: A review of the issues of weighting, aggregation and robustness. Social indicators research, 141(1), 61-94.;

Greenhalgh, P. (1998). Modernism in Design. Reaktion Books.

Greffe, X. (2008). New business models for culture'. State Library of Queensland, Brisbane, 14.

Gross, J. D. (2020). The Birth of the Creative Industries Revisited: An Oral History of the 1998 DCMS Mapping Document. King's College London. https://kclpure.kcl.ac.uk/portal/files/125010567/Gross_J._2020_The_Birth_of_the_Creative_Industries_Revisited.pdf

Guetzkow, J. (2002). How the creative economy influences urban development. Regional Studies, 36(3), 265–277. https://doi.org/10.1080/00343400220121153

Gursoy, D., Malodia, S., & Dhir, A. (2022). The metaverse in the hospitality and tourism industry: An overview of current trends and future research directions. *Journal of Hospitality Marketing & Management*, *31*(5), 527–534. https://doi.org/10.1080/19368623.2022.2072504

Gujarati, D. N., & Porter, D. C. (2009). Basic econometrics. McGraw-hill. https://cbpbu.ac.in/userfiles/file/2020/STUDY_MAT/ECO/1.pdf

Gursoy, D., & McCleary, K. W. (2004). An integrative model of tourists'information search behavior. Annals of tourism research, 31(2), 353-373. https://doi.org/10.1016/j.annals.2003.12.004

Guttentag, D. A. (2010). Virtual reality: Applications and implications for tourism. Tourism management, 31(5), 637-651. https://doi.org/10.1016/j.tourman.2009.07.003

Govers, R., Go, F. M., & Kumar, K. (2007). Promoting tourism destination image. Journal of travel research, 46(1), 15-23. https://doi.org/10.1177/0047287507302374

Getz, D. (1991). Festivals, special events and tourism (p. 374pp). Van Nostrand Rheinhold, New York.

Getz, Donald (2005). Event management and event tourism. 2nd ed ed. Elmsford, NY: Cognizant Communication Corporation.

Haberstroh, M.M., Pinkwart, A. (2018). Increasing the Innovative Capacity of European Cities: Making Use of Proven Concepts from the National Level. In: Albach, H., Meffert, H., Pinkwart, A., Reichwald, R., Świątczak, Ł. (eds) European Cities in Dynamic Competition . Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-56419-6_3

Hall, C.M. (2008). Tourism planning: Policies, processes and relationships. Pearson Education.

Hall, P. (1988). Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century. Blackwell.

Hall, P. (1994). Creative cities and economic development. Urban Studies, 31(7), 1001–1013.

Hall, P. (1998). Cities in Civilization: Culture, Innovation and Urban Order. London: Weidenfeld & Nicolson.

Hall, P. (2000) 'Creative cities and economic development', Urban Studies 37(4), pp. 639–649. https://doi.org/10.1080/0042098005000394

Hansen, L. P. (1982). Large sample properties of generalized method of moments estimators. Econometrica: Journal of the econometric society, 50 (4), 1029-1054. https://doi.org/10.2307/1912775

Hartley, J. (2005). Creative industries. First published.

Hartley, J. (2012). Digital futures for cultural and media studies. Wiley-Blackwell.

Hartley, J., Potts, J., & MacDonald, T. (2012). The CCI Creative City Index (CCI-CCI). In International Cultural Administration 1 (pp. 158-177). University of International Business and Economics Press. ; https://eprints.qut.edu.au/60058/1/51-488-1-PB.pdf

Hartley, J., Potts, J., MacDonald, T., Erkunt, C., & Kufleitner, C. (2012). (C2 I)2 = CCI-CCI The CCI Creative City Index 2012. Cultural Science, 2012, Sciendo, 5(1), 1–138. https://doi.org/10.5334/csci.41

Hartwell, H., Fyall, A., Willis, C., Page, S., Ladkin, A., & Hemingway, A. (2016). Progress in tourism and destination wellbeing research. *Current Issues in Tourism*, *21*(16), 1830–1892. https://doi.org/10.1080/13683500.2016.1223609

Hargreaves, I., & Hartley, J. (2016). "Eleven: A capacious approach to creative citizenship: implications for policy". In The Creative Citizen Unbound. Bristol, UK: Policy Press. Retrieved Oct 25, 2025, from https://doi.org/10.51952/9781447324973.ch011

Hausman, J. A. (1978). Specification Tests in Econometrics. Econometrica, 46(6), 1251–1271. https://doi.org/10.2307/1913827

Hawkes, J. (2001). The fourth pillar of sustainability: Culture's essential role in public planning. Common Ground.

Hayllar, B., Griffin, T., & Edwards, D. (2008). City spaces, tourism and culture. Elsevier.

Henche, B. G., Salvaj, E., & Cuesta-Valiño, P. (2020). A Sustainable Management Model for Cultural Creative Tourism Ecosystems. Sustainability, 12(22), 9554. https://doi.org/10.3390/su12229554

Henriques, C. H., & Elias, S. R. (2022). Interconnections between the cultural and creative industries and tourism: challenges in four Ibero-American capital cities. International Journal of Culture, Tourism and Hospitality Research, 16(1), 337-351.

Herslund, L. (2012). The rural creative class: counterurbanisation and entrepreneurship in the Danish countryside. Sociologia ruralis, 52(2), 235-255. https://doi.org/10.1111/j.1467-9523.2011.00560.x

Hesmondhalgh, D. (2002). The Cultural Industries. SAGE Publications. http://digital.casalini.it/9781526453471

Hesmondhalgh, D. (2010). New media and the cultural industries. In J. Hartley, J. Burgess, & A. Bruns (Eds.), A companion to new media dynamics (pp. 33–54). Wiley-Blackwell.

Hesmondhalgh, D. (2013). The cultural industries (3rd ed.). London: SAGE.

Hesmondhalgh, D. (2018). The cultural industries. https://doi:10.17323/978-5-7598-1530-3

Hesmondhalgh, D., & Baker, S. (2011). Creative Labour: Media Work in Three Cultural Industries (1st ed.). Routledge. https://doi.org/10.4324/9780203855881

Hesmondhalgh, D., & Meier, L. M. (2015). Popular music, digital technology and the cultural industries. Cultural Sociology, 9(3), 333–350. https://doi.org/10.1177/1749975515585720

Hesmondhalgh, D., & Pratt, A. C. (2005). Cultural industries and cultural policy. International Journal of Cultural Policy, 11(1), 1–13. https://doi.org/10.1080/10286630500067598

Hesmondhalgh, D.J (2008) Cultural and Creative Industries. In: The SAGE handbook of cultural analysis. Sage Publications Ltd, pp. 553-569. http://eprints.whiterose.ac.uk/42752/

Hewison, R. (2014). Cultural capital: The rise and fall of creative Britain. Verso Books.

Higgs, P., & Cunningham, S. (2008). Creative Industries Mapping: Where have we come from and where are we going? Creative Industries Journal, 1(1), 7–30. https://doi.org/10.1386/cij.1.1.7_1

Hollanders, H., & Van Cruysen, A. (2009). Design, creativity and innovation: a scoreboard approach. Pro Inno Europe, Inno Metrics: Holanda, 1-36.; https://doi=131ec1a5208f89f84e77f6ef7155cdfebaa1d16f

Holtz-Eakin, D., Newey, W., Rosen, H., 1990. Estimating vector autoregressions with panel data. Econometrica vol. 56, issue 6, 1371-95. https://doi.org/10.2307/1913103

Howkins, J. (2001). The Creative Economy: How People Make Money from Ideas. Penguin Global. https://doi.org/10.1007/s11205-017-1832-9.

Howkins, J. 2007. Creative Economy. London: Penguin Books

Howkins, J. (2009). Creative Ecologies: Where Thinking is a Proper Job. St Lucia, Qld: University of Queensland.
http://culturalscience.org/journal/index.php/culturalscience/article/download/49/79.

Hudec, O., & Klasová, S. (2016). Slovak Creativity Index–A PCA Based Approach. European spatial research and policy, 23(1), 47-64.; https://czasopisma.uni.lodz.pl/esrap/article/download/6609/8320

Hui, D., Ng, C.H., Mok, P., Wan-kan, C., & Yuen, C. (2005). D. Hui (Ed.), A Study on Creativity Index. Home Affairs Bureau. Centre for Cultural Policy Research. University of Hong Kong.

Hull, K., & Sassenberg, K. (2012). Interaction between tourists and local communities. Tourism Studies, 12(4), 415–430. https://doi.org/10.1177/1468797612440321

Hutton, T. A. (2004). The new economy of the inner city. Cities, 21(2), 89–108.

Hsiao, C. (2022). Analysis of panel data (No. 64). Cambridge university press. https://www.academia.edu/download/30181134/22465755_lese_1.pdf

Hsu, C. C., & Sandford, B. A. (2007). The Delphi technique: making sense of consensus. Practical assessment, research and evaluation, 12(1). https://doi.org/10.7275/pdz9-th90

Inversini, A., Buhalis, D. (2009). Information Convergence in the Long Tail: The Case of Tourism Destination Information. In: Höpken, W., Gretzel, U., Law, R. (eds) Information and Communication Technologies in Tourism 2009. Springer, Vienna. https://doi.org/10.1007/978-3-211-93971-0_32

Jacobs, J. (1961) The Death and Life of Great American Cities (New York: Random House).

Jackson, J., Houghton, M., Russell, R., & Triandos, P. (2005). Innovations in measuring economic impacts of regional festivals: A do-it-yourself kit. Journal of travel research, 43(4), 360-367. https://doi.org/10.1177/0047287505274649

Jelinčić DA. (2021) Indicators for Cultural and Creative Industries' Impact Assessment on Cultural Heritage and Tourism. Sustainability. 13(14):7732. https://doi.org/10.3390/su13147732

Jelinčić, D.A., Mansfeld, Y. (2019). Applying Cultural Tourism in the Revitalisation and Enhancement of Cultural Heritage: An Integrative Approach. In: Obad Šćitaroci, M., Bojanić Obad Šćitaroci, B., Mrđa, A. (eds) Cultural Urban Heritage. The Urban Book Series. Springer, Cham. https://doi.org/10.1007/978-3-030-10612-6_3

Jelinčić, D. A., & Žuvela, A. (2012). Facing the challenge? Creative tourism in Croatia. Journal of Tourism Consumption and Practice, 4(2), 78-90. https://pearl.plymouth.ac.uk/jtcp/vol4/iss2/17

Jenkins, H. (2006). Convergence culture: Where old and new media collide. New York: New York University Press.

Jenkins, H., Ford, S., & Green, J. (2013). Spreadable media: Creating value and meaning in a networked culture. New York: NYU Press.

Johnson, J. L. (2006). Strategic culture: Refining the theoretical construct. Defense Threat Reduction Agency Advanced Systems and Concepts Office. https://procon.bg/article/strategic-culture-refining-theoretical-construct (accessed 20 March 2024).

Jones, P., & Warren, S. (Eds.). (2015). Creative Economies, Creative Communities: Rethinking Place, Policy and Practice. Ashgate Publishing, Ltd..

Judd, D. R. (2006). Architecture and tourism: Designing for place identity. Tourism Geographies, 8(1), 33–52. https://doi.org/10.1080/14616680500523949

Kačerauskas, T., Streimikiene, D., & Bartkute, R. (2021). Environmental Sustainability of Creative Economy: Evidence from a Lithuanian Case Study. Sustainability, 13(17), 9730. https://doi.org/10.3390/su13179730

KEA European Affairs. (2006). The economy of culture in Europe. Study prepared for the European Commission (Directorate-General for Education and Culture). Accessed August 20, 2024. ec.europa.eu/culture/library/studies/cultural-economy_en.pdf.

KEA European Affairs. (2009). The Contribution of Culture to Creativity. KEA European Affairs: European Commision. Accessed August 20, 2024 http://www.keanet.eu/docs/impactculturecreativityfull.pdf.

KEA European Affairs, (2015). Feasibility study on data collection and analysis in the cultural and creative sectors in the EU. Accessed 5 May 2025. https://KEA2015

Kemeny, T., Nathan, M., & O'Brien, D. (2019). Creative differences? Measuring creative economy employment in the United States and the UK. Regional Studies, 54(3), 377–387. https://doi.org/10.1080/00343404.2019.1625484

Kemeny, T., Nathan, M., & O'Brien, D. (2020). Creative differences? Measuring creative economy employment in the United States and the UK. Regional Studies, 54(3), 377-387.; https://doi.org/10.1080/00343404.2019.1625484

Kennedy, P. (2008). A guide to econometrics. John Wiley & Sons. https://www.wiley.com (accessed 15th February 2024).

Kim, H., Borges, M. C., & Chon, J. (2006). Impacts of environmental values on tourism motivation: The case of FICA, Brazil. Tourism management, 27(5), 957-967. https://doi.org/10.1016/j.tourman.2005.09.007

King, L. (2009). Cultural tourism and the rise of creative tourism. Tourism Review International, 13(2), 99–111. https://doi.org/10.3727/154427209789116728

Kloudová, J., & Chwaszcz, O. (2012). Transformation of 3T model towards the comparison of creative centres within the European Union [Transformace modelu 3T za účelem komparace kreativního potenciálu v rámci vybraných evropských regionû]. E+M Ekonomie a Management , 15(4), 56–70.

Kloudova, J., & Stehlikova, B. (2010). Creativity index for the Czech Republic in terms of regional similarities and geographic location. Economics & Management. 15(1), 100–109. https://www.semanticscholar.org/paper/CREATIVITY-INDEX-FOR-THE-CZECH-REPUBLIC

Knight Foundation, Americans for the Arts, the City of San Jose Office of Cultural Affairs and Cultural Initiatives Silicon Valley. (2002). Creative Community Index. Cultural Initiatives Silicon Valley.

Kong, L. (2014). From cultural industries to creative industries and back? International Journal of Cultural Policy, Inter-Asia Cultural Studies, 15(4), 593-607. Available at: https://ink.library.smu.edu.sg/soss_research/1693

Koens, K., Klijs, J., Weber-Sabil, J., Melissen, F., Lalicic, L., Mayer, I., … Aall, C. (2020). Serious gaming to stimulate participatory urban tourism planning. Journal of Sustainable Tourism, 30(9), 2167–2186. https://doi.org/10.1080/09669582.2020.1819301

Korez-Vide R. (2013) Promoting sustainability of tourism by creative tourism development: how far is Slovenia?. Innovative Issues and Approaches in Social Sciences, vol.6, no.1:77-102, http://dx.doi.org/10.12959/issn.1855-0541.IIASS-2013-no1-art05

Kovaitė, K., Šūmakaris, P., & Korsakienė, R. (2022). Sustainability in creative and cultural industries: a bibliometric analysis. Creativity Studies, 15(1), 278-298. https://doi.org/10.3846/cs.2022.16565

Krajnovic, A., & Gortan-Carlin, I. P. (2007). Possibilities of music heritage tourist valorization–an example of Istria. Tourism and hospitality management, 13(2), 469-482. https://doi.org/10.20867/thm.13.2.3

Kregzdaite, R., Cerneviciute, J., Strazdas, R. (2020), Evaluation of cultural sectors in EU countries, Transformations in Business & Economics, Vol. 19, No 3C (51C), pp.618-636.; https://etalpykla.vilniustech.lt/handle/123456789/87642?show=full

Kvale, S. (2009). Interviews: Learning the craft of qualitative research interviewing. Sage.

Landry, C., (2000): The Creative City: A Toolkit for Urban Innovators. London: Earthscan. https://doi.org/10.1093/CDJ/36.2.165

Landry, C. (2010). The creative ecology of the creative city: A summary. In Araya, D., & Peters, M. A. (eds). Education in the creative economy : knowledge and learning in the age of innovation. Peter Lang

Landry, C. (2012a). The creative city: A toolkit for urban innovators. London, England: Comedia. https://doi.org/10.4324/9781849772945

Landry, C. (2012b). The art of city making. Routledge. https://doi.org/10.4324/9781849772877

Landry, C. and Bianchini, F. (1995) The Creative City. London: Demos..

Landry, C., & Hyams, J. (2012). The creative city index: Measuring the pulse of the city. Gloucestershire: Comedia; http://charleslandry.com/panel//The-Creative-City-Index.pdf

Lash, S., & Urry, J. (1994). Economies of Signs and Space. SAGE Publications.

Lazzeretti, L., Boix, R., & Capone, F. (2008). Do Creative Industries Cluster? Mapping Creative Local Production Systems in Italy and Spain. Industry and Innovation, 15(5), 549–567. https://doi.org/10.1080/13662710802374161

Lazzeretti, L., Capone, F., & Seçilmiş, I. E. (2015). In search of a Mediterranean creativity. Cultural and creative industries in Italy, Spain and Turkey. European Planning Studies, 24(3), 568–588. https://doi.org/10.1080/09654313.2015.1082979

Lazzeretti, L.,. R. Boix and F. Capone (2013). Why do Creative Industries Cluster?, Creative Industries and Innovation in Europe: Concepts, Measures and Comparative Case Studies, edited by L. Lazzeretti, 45–64. New York: Routledge.

Leadbeater, C., & Oakley, K. (1999). The independents: Britain's new cultural entrepreneurs. London: Demos.

Lewis, R. (2010). When cultures collide: Leading across cultures. Nicholas Brealey International. https://www.mediaculture.fr/wp-content/uploads/2018/10/When-Cultures-Collide.pdf (accessed 20 May 2025).

Lewis, N. M., & Donald, B. (2009). A New Rubric for 'Creative City' Potential in Canada's Smaller Cities. Urban Studies, 47(1), 29-54. https://doi.org/10.1177/0042098009346867

Linstone, H. A., & Turoff, M. (Eds.). (1975). The delphi method (Vol. 1975, pp. 3-12). Reading, MA: Addison-Wesley. https://doi.org/10.2307/3150755

Lin, Z., Chen, Y., & Filieri, R. (2017). Resident-tourist value co-creation: The role of residents' perceived tourism impacts and life satisfaction. Tourism Management, 61, 436-442. https://doi.org/10.1016/j.tourman.2017.02.013

Li, X., & Petrick, J. F. (2005). A review of festival and event motivation studies. Event Management, 9(4), 239.

Li, S., & McCabe, S. (2013). Measuring the socio-economic legacies of mega-events: Concepts, propositions and indicators. International journal of tourism research, 15(4), 388-402. https://doi.org/10.1002/jtr.1885

Long, P., & Morpeth, N. D. (2013). Critiquing creativity in tourism. In The Routledge Handbook of Cultural Tourism (pp. 304-310). Routledge.

Long, P., & Morpeth, N.D. (Eds.). (2016). Tourism and the Creative Industries: Theories, policies and practice (1st ed.). Routledge. https://doi.org/10.4324/9781315735870

Lundvall, B. äke, & Johnson, B. (1994). The Learning Economy. Journal of Industry Studies, 1(2), 23–42. https://doi.org/10.1080/13662719400000002

Maitland, R., & Newman, P. (2008). World tourism cities: Developing tourism off the beaten track. Routledge.

Marco, F., Boix, R., & Rausell, P. (2014). The geography of creative industries in Europe. European Planning Studies, 22(3), 459–482.

Marco-Serrano, F., Rausell-Koster, P., & Abeledo-Sanchis, R. (2014). Economic development and the creative industries: a tale of causality. Creative Industries Journal, 7(2), 81–91. https://doi.org/10.1080/17510694.2014.958383

Markusen, A. (2006). Urban Development and the Politics of a Creative Class: Evidence from a Study of Artists. Environment and Planning A: Economy and Space, 38(10), 1921-1940. https://doi.org/10.1068/a38179

Markusen, A. (2014). "Creative Cities: A Ten-year Research Agenda." Journal of Urban Affairs 36 (S2): 1–23.

Markusen, A., Gadwa, A., Wassall, G. H., & DeNatale, D. (2008). Defining the creative economy. Economic Development Quarterly, 22(1), 24–45.

Marshall, A. (1890). Principles of economics, by Alfred Marshall (pp. 20-22). London: Macmillan and Company.

Martin, L., & Wilson, N. (2016). Opportunity, Discovery and Creativity: A Critical Realist Perspective. International small business journal, 34(3), 261-275. https://doi.org/10.1177/0266242614551185

Martinaitytė, E., Kregždaitė, R. (2015), The factors of creative industries development in nowadays stage, Economics and Sociology, Vol. 8, No 1, pp. 55-70. https://doi.org/10.14254/2071- 789X.2015/8-1/5

Martins, M., Costa Guerra, R. J., Santos, L., & Lopes, L. (2023). The exploration of the metaverse by destination management organisations towards sustainability. In Z. Tučková, S. K. Dey, H. H. Thai, & S. D. Hoang (Eds.), Impact of industry 4.0 on sustainable tourism (pp. 105–117). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80455-157- 820231007

Mayuzumi, Y. (2022). Impact of tourism on traditional crafts in Bali. Journal of Cultural Heritage, 54, 22–33. https://doi.org/10.1016/j.culher.2022.04.005

Mayuzumi, Y. (2022). Is meeting the needs of tourists through ethnic tourism sustainable? Focus on Bali, Indonesia. *Asia-Pacific Journal of Regional Science*, *6*(1), 423-451. https://doi.org/10.1007/s41685-021-00198-4

McRobbie, A. (2016). Be creative: Making a living in the new culture industries. Cambridge: Polity Press.

McCann, P., & Ortega-Argilés, R. (2018). Smart specialization, regional growth and applications to European Union cohesion policy. In Place-based economic development and the new EU cohesion policy (pp. 51-62). Routledge. https://doi.org/10.1080/00343404.2013.799769

McKercher, B., Mei, W. S., & Tse, T. S. M. (2006). Are Short Duration Cultural Festivals Tourist Attractions? Journal of Sustainable Tourism, 14(1), 55–66. https://doi.org/10.1080/09669580608668591

Mead, G. H. (1899). The working hypothesis in social reform. American Journal of Sociology, 5(3), 367-371.

Melo, S., Mendes, J., & Carvalho, J. (2019). Visitor perspectives in creative tourism experiences. Journal of Travel Research, 58(5), 789–802. https://doi.org/10.1177/0047287518792613

Mendola, D., & Volo, S. (2017). Building composite indicators in tourism studies: Measurements and applications in tourism destination competitiveness. Tourism Management, 59, 541-553.; https://doi.org/10.1016/j.tourman.2016.08.011

Metaxas, T. & Folinas, S. (2021). Gambling Tourism and Economic Development: Some Lessons from Macao. Journal of Economics, Finance and Management Studies, 4(3): 156-165 https://doi.org/10.47191/jefms/v4-i3-07

Meyer, C., Gerlitz, L., & Klein, M. (2022). Creativity as a Key Constituent for Smart Specialization Strategies (S3), What Is in It for Peripheral Regions? Co-creating Sustainable and Resilient Tourism with Cultural and Creative Industries. Sustainability, 14(6), 3469. https://doi.org/10.3390/su14063469

Miège, B. (1987). The logics at work in the new cultural industries. Media, Culture & Society, 9(3), 273-289. https://doi.org/10.1177/016344387009003002

Miège, B. (1989). The Capitalization of Cultural Production. International General. https://archive.org/details/capitalizationof0000mieg/page/10/mode/2up

Mikulić, K., & Jelušić, A. (2021). Creative industry as generator of tourism transformation and economic development. ISSN 2671-132X Vol. 3 No. 1 pp. 1-1286 June 2021, Zagreb, 1232.

Mikulić, K., & Jelušić, A. (2025). Composite indices for the creative economy: a review and evaluation. Cultural Trends, 34(1), 1–25. https://doi.org/10.1080/09548963.2025.2459777

Miles, M. (2005). Interruptions: Testing the Rhetoric of Culturally Led Urban Development. Urban Studies, 42(5-6), 889-911. https://doi.org/10.1080/00420980500107375

Mommaas, H. (2009). Spaces of Culture and Economy: Mapping the Cultural-Creative Cluster Landscape. In: Kong, L., O'Connor, J. (eds) Creative Economies, Creative Cities. The GeoJournal Library, vol 98. Springer, Dordrecht. https://doi.org/10.1007/978-1-4020-9949-6_4

Montalto, V., Moura, C. J. T., Langedijk, S., & Saisana, M. (2019a). Culture counts: An empirical approach to measure the cultural and creative vitality of European cities. Cities, 89, 167-185.; https://doi.org/10.1016/j.cities.2019.01.014

Montalto, V., Tacao Moura, C.J., Alberti, V., Panella, F., Saisana, M. (2019b), The Cultural and Creative Cities Monitor. 2019 edition, EUR 29797 EN, Publications Office of the European Union, Luxembourg, DOI:10.2760/257371, JRC117336.

Mossberg, L. (2007). A Marketing Approach to the Tourist Experience. Scandinavian Journal of Hospitality and Tourism, 7(1), 59–74. https://doi.org/10.1080/15022250701231915

Morgan, N., Pritchard, A., & Pride, R. (2011). Destination brands: Managing place reputation. Routledge.

Muratovski, G. (2012). Design for tourism: Place-making and user experience. International Journal of Design, 6(1), 21–35.

Murray, R. (2009). Danger and opportunity: Crisis and the new social economy. Nesta.

Nardo, M., Saisana, M., Saltelli, A., & Tarantola, S. (2005). Tools for composite indicators building. *European Comission, Ispra*, *15*(1), 19-20. https://publications.jrc.ec.europa.eu/repository/handle/JRC31473

Nardo, M., Saisana, M., Saltelli, A., Tarantola, S., Hoffman, A., & Giovannini, E. (2005). Handbook on Constructing Composite Indicators: OECD Statistics Working Paper 2005/3. https://dx.doi.org/10.1787/533411815016

National Endowment for Science, Technology and the Arts (NESTA). (2006). Creating growth: How the UK can develop world class creative businesses. NESTA.

Ndou, V., Schiuma, G. and Passiante, G. (2019), Towards a framework for measuring creative economy: evidence from Balkan countries, Measuring Business Excellence, Vol. 23 No. 1, pp. 41-62. https://doi.org/10.1108/MBE-03-2018-0013

New England Foundation for the Arts (2007), The Creative Economy: A New Definition. Available at: http://www.nefa.org/sites/default/files/ResearchCreativeEconReport2007.pdf

Nižić, M. K., Rudan, E., & Trinajstić, M. (2019). The role of creative cities in regional development. Business Excellence, 12(3), 35-55. https://doi.org/10.22598/pi-be/2019.13.1.35

Nocca, F. (2017). The Role of Cultural Heritage in Sustainable Development: Multidimensional Indicators as Decision-Making Tool. Sustainability, 9(10), 1882. https://doi.org/10.3390/su9101882

O'Connor, J. (2007). The Cultural and Creative Industries: A Review of the Literature. Creative Partnerships. Available at: http://www.creativitycultureeducation.org/research-impact/literature-reviews

O'Connor, J. (2011). The Cultural and Creative Industries: A Critical History. In Handbook of Cultural Economy (pp. 387–404). SAGE Publications.

O'Connor, P., & Frew, A. J. (2004). An evaluation methodology for hotel electronic channels of distribution. International journal of hospitality Management, 23(2), 179-199. https://doi.org/10.1016/j.ijhm.2003.10.002

Oakley, K. (2009). The disappearing arts: creativity and innovation after the creative industries. International Journal of Cultural Policy, 15(4), 403–413. https://doi.org/10.1080/10286630902856721

Oakley, K., & O'Connor, J. (2015). The cultural economy: Entrepreneurship, innovation and the creative industries. London: Routledge.

O'Connor, J. (2024). *Culture is not an industry: Reclaiming art and culture for the common good*. Manchester: Manchester University Press. https://doi.org/10.7765/9781526171276

OECD (2006): International Measurement of the Economic and Social Importance of Culture. Available at: http://www.oecd.org/std/nationalaccounts/37257281.pdf (accessed 6 March 2025).

OECD (2014), Tourism and the Creative Economy, OECD Studies on Tourism, OECD Publishing, Paris, https://doi.org/10.1787/9789264207875-en.

OECD (2020), How's Life? 2020: Measuring Well-being, OECD Publishing, Paris, https://doi.org/10.1787/9870c393-en.

OECD (2022), The Culture Fix: Creative People, Places and Industries, Local Economic and Employment Development (LEED), OECD Publishing, Paris, https://doi.org/10.1787/991bb520-en.

OECD (2024), "Measuring social connectedness in OECD countries: A scoping review", OECD Papers on Well-being and Inequalities, No. 28, OECD Publishing, Paris, https://doi.org/10.1787/f758bd20-en.

OECD. (2014). Culture and local development: Maximising the impact. OECD Publishing.

OECD/European Union/EC-JRC (2008), Handbook on Constructing Composite Indicators: Methodology and User Guide, OECD Publishing, Paris, https://doi.org/10.1787/9789264043466-en.

Ohridska-Olson, N., & Ivanov, S. (2010). Creative tourism: Bridging culture and experience. Tourism & Hospitality Research, 10(3), 215–228. https://doi.org/10.1057/thr.2010.17

Ortega-Villa, L. M., & Ley-Garcia, J. (2018). Analysis of cultural indicators: A comparison of their conceptual basis and dimensions. Social Indicators Research, 137, 413-439.; https://doi.org/10.1007/s11205-017-1588-2

Okoli, C., & Pawlowski, S. D. (2004). The Delphi method as a research tool: an example, design considerations and applications. Information & management, 42(1), 15-29. https://doi.org/10.1016/j.im.2003.11.002

Packer, J., & Gill, A. (2017). Creative engagement and transformative experiences in tourism. Annals of Tourism Research, 66, 81–91. https://doi.org/10.1016/j.annals.2017.05.002

Pacione, M. (2014). The role of events in urban regeneration. In The Routledge Handbook of Events (pp. 398-413). Routledge.

Pantzar, M., & Shove, E. (2005). Practice, experience and cultural consumption. Design Studies, 26(6), 693–704. https://doi.org/10.1016/j.destud.2005.06.007

Papadaki, E., Papadopoulou, P., Gournis, G., Plakou, H., & Apostolakis, A. (2025). Creative industries, creative tourism and sustainability perspectives: The case study of traditional pottery-making in Crete. In Responsible Consumption and Production in the Creative and Cultural Industries (pp. 94-116). Routledge.

Papadaki, E. (2024). Promoting Green Tourism Synergies with Cultural and Creative Industries: A Case Study of Greece. Sustainability, 16(2), 633. https://doi.org/10.3390/su16020633

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage.

Peck, J. (2002). Neoliberalizing space. Spaces of Neoliberalism: Urban Restructuring in North America and Western Europe/Blackwell.

Peck, J. (2005). Struggling with the creative class. International journal of urban and regional research, 29(4), 740-770. https://doi.org/10.1111/j.1468-2427.2005.00620.x

Picard, R. G., Grönlund, M., & Toivonen, T. (2003). Means for overall assessment of cultural life and measuring the involvement of the cultural sector in the information society. Ministry of Education.

Plaza, B. (2006). The return on investment of the Guggenheim Museum Bilbao. International journal of urban and regional research, 30(2), 452-467. https://doi.org/10.1111/j.1468-2427.2006.00672.x

Potts, J. (2009a). Introduction: Creative industries & Innovation policy. Innovation, 11(2), 138–147. https://doi.org/10.5172/impp.11.2.138

Potts, J. (2009b). Why creative industries matter to economic evolution. Economics of Innovation and New Technology, 18(7), 663–673. https://doi.org/10.1080/10438590802564592

Potts, J., & Cunningham, S. (2008). Four models of the creative industries. International Journal of Cultural Policy, 14(3), 233–247. https://doi.org/10.1080/10286630802281780

Power, D., & Nielsén, T. (2010). Priority sector report: Creative and cultural industries. Europe Innova.

Pramono, R., Juliana, J., Sihombing, S.O., Sianipar, R. (2024). Spiritual Capital in Supporting Women's Sustainable Entrepreneurship in the Creative Economy of the Tourism Sector. In: Mansour, N., Bujosa Vadell, L.M. (eds) Artificial Intelligence, Digitalization and Regulation. Contributions to Management Science. Springer, Cham. https://doi.org/10.1007/978-3-031-67531-7_34

Pratt, A. C. (2004). The cultural economy: A call for spatialized 'production of culture' perspectives. International Journal of Cultural Studies, 7(1), 117–128.

Pratt, A. C. (2005). Cultural industries and public policy: An oxymoron? International Journal of Cultural Policy, 11(1), 31–44. https://doi.org/10.1080/10286630500067739

Pratt, A. C. (2008). Creative cities: the cultural industries and the creative class. Geografiska annaler: series B, human geography, 90(2), 107-117. https://doi.org/10.1111/j.1468-0467.2008.00281.x

Pratt, A. C., & Merkel, J. (2009). Creative industries and the cultural economy: Knowledge transfer and globalisation. European Planning Studies, 17(4), 539–556.

Pratt, A. C., & Jeffcutt, P. (2009). Creativity, innovation and the cultural economy: snake oil for the twenty-first century?. In Creativity, innovation and the cultural economy (pp. 3-19). Routledge. https://doi.org/10.4324/9780203880012

Pratt, A.C. (2013). The Cultural and Creative Industries: new engines for the city? In: Wang, W. (Ed.), Culture: City. (pp. 36-42). Lars Muller Publishers. ISBN 978-3-03778335-1

Pratt, A.C. (2021). The creative economy and sustainable development. City, Culture and Society, 25, 100393. https://doi.org/10.1016/j.ccs.2021.100393

Prentice, R., & Andersen, V. (2007). Creative tourism: Participation and value creation. Annals of Tourism Research, 34(3), 535–554. https://doi.org/10.1016/j.annals.2006.10.005

Pulido-Fernández, J. I., García-Suárez, J. A., & Rodríguez-Díaz, B. (2021). Proposal for an index to measure creativity in urban-cultural destinations. International Journal of Tourism Research, 23(1), 89–105. https://doi.org/10.1002/jtr.2396

Quinn, B. (2005). Arts festivals and the city. Urban studies, 42(5-6), 927-943. https://doi.org/10.1080/00420980500107250

Ratten, V. (2017). Entrepreneurship, innovation and smart cities. Routledge. https://doi.org/10.4324/9781315407463

Rašić Bakarić, I., Bačić, K., & Božić, L. (2015). Analiza kreativnih i kulturnih industrija u Republici Hrvatskoj. Ekonomski institut Zagreb.

Ray, P. H., & Anderson, S. R. (2001). The cultural creatives: How 50 million people are changing the world. Crown.

Rausell, P., De-Miguel-Molina, B., Marco, F., Boix, R., & Soler, V. (2011). The spillover effects of creative industries in Europe. Creative Industries Journal, 4(3), 245–263.

Raymond, C. (2007). Creative tourism and authenticity. Tourism Analysis, 12(2), 123–132. https://doi.org/10.3727/108354207783249408

Reiter, B. (2013). The epistemology and methodology of exploratory social science research: Crossing Popper with Marcuse.

Remoaldo, P., Matos, O., Freitas, I., da Silva Lopes, H., Ribeiro, V., G, R., & Pereira, M. (2019). Good and not-so-good practices in creative tourism networks and platforms: An international review. A research agenda for creative tourism, 167-181. https://doi.org/10.4337/9781788110723.00024

Rhodes, M. (1961). An Analysis of Creativity. The Phi Delta Kappan, 42(7), 305–310. http://www.jstor.org/stable/20342603

Richards, G. (2003). Cultural tourism in Europe. Tourism Review, 58(3), 6–11. https://doi.org/10.1108/eb058331

Richards, G. (2009). Creative tourism: Models and perspectives. Creativity and Innovation Management, 18(3), 201–212. https://doi.org/10.1111/j.1467-8691.2009.00526.x

Richards, G. (2011). Creativity and tourism: The state of the art. *Annals of tourism research*, *38*(4), 1225-1253. https://doi:10.1016/j.annals.2011.07.008

Richards, G. (2012a) Tourism, creativity and creative industries. In conference Creativity and Creative Industries in Challenging Times, NHTV Breda. https://www.Tourism_Creativity_and_the_Creative_Industries (accessed 6 March 2025).

Richards, G. (2012b). Creativity and tourism: The future. Tourism Management Perspectives, 4, 31–35. https://doi.org/10.1016/j.tmp.2012.05.001

Richards, G. (2013). Creativity and tourism in the city. Current Issues in Tourism, 17(2), 119–144. https://doi.org/10.1080/13683500.2013.783794

Richards, G. (2016). Creative tourism: A review of research and practice. Annals of Tourism Research, 61, 1–12. https://doi.org/10.1016/j.annals.2016.07.002

Richards, G. (2018a). Cultural tourism: A review of recent research and trends. *Journal of hospitality and tourism management*, *36*, 12-21. https://doi.org/10.1016/j.jhtm.2018.03.005

Richards, G. (2018b). The creative economy, entertainment and performance. In C. Cooper, S. Volo, W. C. Gartner, & N. Scott (Eds.), SAGE handbook of tourism management: Applications of theories and concepts to tourism (Vol. 2, pp. 315-327). Sage. https://research.tilburguniversity.edu/en/publications/96f3ad94fdc8-4e0f-9daa-14ddb7ff3ae8

Richards, G. (2018c). Tourism, an underestimated driving force for the creative economy. *Revista Turismo em Análise*, *29*(3), 387-395. http://dx.doi.org/10.11606/issn.1984-4867.v29i3p387-395

Richards, G. (2020). Designing creative places: The role of creative tourism. Annals of tourism research, 85, 102922. https://doi.org/10.1016/j.annals.2020.102922

Richards, G. (2021a). Creative placemaking strategies in smaller communities. *Creative tourism in smaller communities: Place, culture and local representation*, 283-298.

Richards, G. (2021b). Making places through creative tourism?. In Cultural Sustainability, Tourism and Development (pp. 36-48). Routledge. https://research.tilburguniversity.edu/en/publications/bc1c89c7d6a6-411c-9abe-032b988a2259

Richards, G. (2021c). New business models in creative tourism. Tourism Management, 82, 104–115. https://doi.org/10.1016/j.tourman.2020.104115

Richards, G. (2021d), Cultural sustainability, tourism and development: (Re)articulations in tourism contexts. Duxbury, N. (ed.). London: Routledge, p. 36-48, https://doi.org/10.4324/9780367201777-4

Richards, G. (2021e). Business models for creative tourism. Journal of Hospitality & Tourism, 19(1), 1-13. https://johat.org/wp-content/uploads/2021/09/1-Greg-180721.pdf

Richards, G. (2021f). Rethinking creative tourism: A global perspective. Tourism Recreation Research, 46(2), 125–137.

Richards, G. W., & Marques, L. (2012). Exploring creative tourism: Introduction. *Journal of Tourism Consumption and Practice*, *4*(2), 1-11. https://research.tilburguniversity.edu/en/publications/d98cddfcfdac-48dc-8b76-9bd561712556

Richards, G. (2021g). Making places through creative tourism? In N. Duxbury (Ed.), *Cultural sustainability, tourism and development: (Re)articulations in tourism contexts* (pp. 36-48). CABI International. https://doi.org/10.4324/9780367201777-4

Richards, G., & Raymond, C. (2000). Creative tourism. ATLAS news, 23(8), 16-20. https://Creative_Tourism_Richards_and_Raymond_2000 (accessed 6 March 2025).

Richards, G., & Wilson, J. (2006). Developing creativity in tourist experiences: A solution to the serial reproduction of culture?. Tourism management, 27(6), 1209-1223. https://doi.org/10.1016/j.tourman.2005.06.002

Richards, G., & Wilson, J. (2007a). Tourism development trajectories: From culture to creativity?. In *Tourism, creativity and development* (pp. 23-56). Routledge. https://doi.org/10.1016/j.tourman.2006.04.006

Richards, G., & Wilson, J. (Eds.). (2007b). Tourism, creativity and development (Vol. 10). London: Routledge.https://www.academia.edu/download/46688835/Tourism__Creativity_and_Development.pdf (accessed 6 March 2025).

Richards, G., James, L., & Halkier, H. (2024). Concepts and Methods – Deliverable 2.1 for the CROCUS Horizon Europe project on Cross-border Cultural and Creative Tourism in Rural and Remote Areas. In Concepts and Methods – Deliverable 2.1 for the CROCUS Horizon Europe project on Cross-border Cultural and Creative Tourism in Rural and Remote Areas. Available at: https://Cross-Border-Cultural-and-Creative-Tourism-in-Rural-and-Remote-Areas-CONCEPTS-AND-METHODS.pdf

Rifkin, J. (2001). The age of access: The new culture of hypercapitalism. Penguin.

Ritchie, J. B., & Crouch, G. I. (2003). The competitive destination: A sustainable tourism perspective. Cabi. https://doi.org/10.1080/1461668042000280264

Robledo, L., & Batle, J. (2017). Design-driven tourism: Integrating creativity into visitor experiences. International Journal of Culture, Tourism and Hospitality Research, 11(3), 301–316. https://doi.org/10.1108/IJCTHR-05-2016-0037

Robledo, M. A., & Batle, J. (2015). Transformational tourism as a hero's journey. Current Issues in Tourism, 20(16), 1736–1748. https://doi.org/10.1080/13683500.2015.1054270

Roberts, E., & Townsend, L. (2016). The contribution of the creative economy to the resilience of rural communities: exploring cultural and digital capital. Sociologia Ruralis, 56(2), 197-219. https://doi.org/10.1111/soru.12075

Rodrigues, M., & Franco, M. (2018). Measuring the performance in creative cities: Proposal of a multidimensional model. Sustainability, 10(11), 4023.; https://doi.org/10.3390/su10114023

Rodrigues, M., & Franco, M. (2019a). Composite index to measure the performance of today's creative cities: A holistic perspective. Journal of Urban & Regional Analysis, 11(2), 113–157. https://doi.org/10.37043/JURA.2019.11.2.2

Rodrigues, M., & Franco, M. (2019b). Composite index to measure cities' creative performance: an empirical study in the portuguese context. Sustainability, 11(3), 774. https://doi.org/10.3390/su11030774

Root, R. A., & Saunders, S. N. (2021). Refashioning Collaborations: Crossing Borders During the Pandemic. Middle Atlantic Review of Latin American Studies, Vol. 5, No. 1, 88-96. https://doi.org/10.23870/marlas.361

Runco, M. A., & Jaeger, G. J. (2012). The Standard Definition of Creativity. Creativity Research Journal, 24(1), 92–96. https://doi.org/10.1080/10400419.2012.650092

Saisana, M., Saltelli, A. (2008). Expert Panel Opinion and Global Sensitivity Analysis for Composite Indicators. In: Graziani, F. (eds) Computational Methods in Transport: Verification and Validation. Lecture Notes in Computational Science and Engineering, vol 62. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-540-77362-7_11

Saisana, M., Saltelli, A., & Tarantola, S. (2005). Uncertainty and sensitivity analysis techniques as tools for the quality assessment of composite indicators. Journal of the Royal Statistical Society: Series A (Statistics in Society), 168(2), 307-323.; https://doi.org/10.1111/j.1467-985X.2005.00350.x

Sassen, S. (1991). The global city: New york, london, tokyo. Princeton University Press.

Saltelli, A. (2007). Composite indicators between analysis and advocacy. Social indicators research, 81, 65-77.; https://doi.org/10.1007/s11205-006-0024-9

Sarantou, M., Kugapi, O., & Huhmarniemi, M. (2021). Context mapping for creative tourism. Annals of Tourism Research, 86, 103064. https://doi.org/10.1016/j.annals.2020.103064

Schumpeter, J. A. (1911). The Theory of Economic Development. Harvard University Press. https://share.google/ZpLXqpr63IY92f5ap

Scott, A. J. (1999). The cultural economy: geography and the creative field. *Media, culture & society*, *21*(6), 807-817. https://doi.org/10.1177/0163443990210060

Scott, A. J. (2000). The cultural economy of cities: essays on the geography of image-producing industries. Sage Publications.

Scott, A. J. (2001). Capitalism, cities and the production of symbolic forms. Transactions of the institute of British geographers, 26(1), 11-23. https://doi.org/10.1111/1475-5661.00003

Scott, A. J. (2007). Capitalism and urbanization in a new key? The cognitive-cultural dimension. Social forces, 85(4), 1465-1482. https://doi.org/10.1353/sof.2007.0078

Scott, A. J. (2012). A new map of the creative economy. In R. Towse & C. Handke (Eds.), Handbook of the digital creative economy (pp. 13–31). Cheltenham: Edward Elgar. https://doi.org/10.1353/sof.2007.0078

Scott, A. J. (2014). Beyond the creative city: Cognitive–cultural capitalism and the new urbanism. Regional Studies, 48(4), 565–578. https://doi.org/10.1080/00343404.2014.891010

SDG. (2015). Transforming our world: The 2030 Agenda for Sustainable Development. United Nations. https://sdgs.un.org/2030agenda

Sepe, M. (2010). Place identity and PlaceMaker: planning the urban sustainability. Journal of Urban Planning and Development, 136(2), 139-146. https://doi.org/10.1061/(ASCE)0733-9488(2010)136:2(139)

Seeler, S., & Schänzel, H. A. (2019). Transformative tourism experiences through creative services. Tourism Recreation Research, 44(2), 234–247. https://doi.org/10.1080/02508281.2019.1619616

Selada, C., Cunha, I. V., & Tomaz, E. (2011). Creative-based strategies in small cities: A case-study approach. Redige, (2), 79-111.

Sharpe, A. (2004). Literature review of frameworks for macro-indicators. Ottawa: Centre for the Study of Living Standards.; http://www.csls.ca/reports/LitRevMacro-indicators.pdf

Simonton, D. K. (2010). Creative thought as blind-variation and selectiveretention: combinatorial models of exceptional creativity. Phys. Life Rev. 7, 190–194. https://doi.org/10.1016/j.plrev.2010.05.004

Siswanto, V.K., Aulia, B.U., Santoso, E.B., Umilia, E., & Zakina, N. (2018). Potential and problems participatory mapping of creative industry in Kampong Dolly, Surabaya. IOP Conference Series: Earth and Environmental Science, 202. https://doi.org/10.1088/1755-1315/202/1/012055

Smith, A. (1776). An Inquiry into the Nature and Causes of the Wealth of Nations. Strahan & Cadell.

Smith, C. (1998). Creative Britain. Faber & Faber.

Smith, M. K. (2015). Tourism and cultural change. In The Routledge handbook of tourism and sustainability (pp. 175-184). Routledge. https://doi.org/10.4324/9780203072332

Smith, M. K., & Richards, G. (Eds.). (2013). The Routledge handbook of cultural tourism (p. 191). London: Routledge. https://research.tilburguniversity.edu/en/publications/the-routledge-handbook-of-cultural-tourism-2

Smith, M.K. (2015). Issues in Cultural Tourism Studies (3rd ed.). Routledge. https://doi.org/10.4324/9781315767697

Sowden, P. T., Pringle, A. and Gabora, L. (2014). The shifting sands of creative thinking: connections to dual-process theory. Think. Reason. 21, 40–60. https://doi.org/10.1080/13546783.2014.885464

Stano, P. M., & Węziak-Białowolska, D. (2017). Measuring cultural and creative activities in European cities: Challenges and practical problems with existing indices. Creativity Research Journal, 29(3), 292-303.; https://doi.org/10.1080/10400419.2017.1360066

Stankova, M., & Vassenska, I. (2015). Raising cultural awareness of local traditions through festival tourism. Tourism & Management Studies, 11(1), 120-127.

Stasiak, A. (2019). Creating tourism experiences—Theoretical foundations. World Scientific Book Chapters, 17-41. in: Daniela Angelina Jelinčić & Yoel Mansfeld (ed.), Creating and Managing Experiences in Cultural Tourism, chapter 2, pages 17-41, World Scientific Publishing Co. Pte. Ltd. https://doi.org/10.1142/9789813233683_0002

Stebbins, R. A. (2001). Exploratory research in the social sciences (Vol. 48). Sage.

Sternberg, R. J. and Lubart, T. I. (1999). "The concept of creativity: prospect and paradigms," in Handbook of Creativity, ed R. J. Sternberg (Cambridge: Cambridge Press), 3–15. https://doi.org/10.1017/CBO9780511807916.003

Stiglitz, J. (2009). Towards a better measure of well-being. Financial Times, 13, 497; https://doi.org/10.1787/9789264307278-en

Stiglitz, J., J. Fitoussi and M. Durand (eds.) (2018), For Good Measure: Advancing Research on Well-being Metrics Beyond GDP, OECD Publishing, Paris, https://doi.org/10.1787/9789264307278-en.

Stojčić, N., Bačić, K., & Aralica, Z. (2016). Is creative economy in Croatia a myth or reality? Some evidence on the impact of creativity on regional economic growth. Croatian Economic Survey, 18(2), 113-138. https://doi.org/10.15179/ces.18.2.4

Stolarick, K. M., Denstedt, M., Donald, B., & Spencer, G. M. (2010). Creativity, tourism and economic development in a rural context: The case of Prince Edward County. Journal of Rural and

Community Development, 5(1), (2010) 238–254. https://journals.brandonu.ca/jrcd/article/view/353

Stolarick, K. M. (2012). Functional creative economies: The spatial distribution of creative workers. Journal of Rural and Community Development, 7(3). https://journals.brandonu.ca/jrcd/article/download/728/164

Stolarick, K., & Florida, R. (2006). Creativity, Connections and Innovation: A Study of Linkages in the Montréal Region. Environment and Planning A: Economy and Space, 38(10), 1799-1817. https://doi.org/10.1068/a3874

Storper, M., & Scott, A. J. (2009). Rethinking human capital, creativity and urban growth. Journal of economic geography, 9(2), 147-167. https://doi.org/10.1093/jeg/lbn052

Strom, E. (2003). Cultural policy as development policy: evidence from the United States. International Journal of Cultural Policy, 9(3), 247–263. https://doi.org/10.1080/1028663032000161687

Stiglitz J., Fitoussi J., Duran M. 2018. Beyond GDP: Measuring What Counts for Economic and Social Performance. OECD Publishing. Paris. 148 p. https://doi.org/10.1787/9789264307292en

Syufa'at, Mutaqin, E. Z., Dharin, A., & Mutholaah. (2024). Implementation of Chse Certificate for Tourism Object Management in Banyumas (Halal Tourism Perspective). Revista De Gestão Social E Ambiental, 18(9), e05544. https://doi.org/10.24857/rgsa.v18n9-069

Štreimikienė, D., & Kačerauskas, T. (2020). The creative economy and sustainable development: The Baltic States. Sustainable development, 28(6), 1632-1641. https://doi.org/10.1002/sd.2111

Tan, S. K., Kung, S. F., & Luh, D. B. (2013). A model of 'creative experience'in creative tourism. Annals of tourism research, 41, 153-174. http://dx.doi.org/10.1016/j.annals.2012.12.002

Tan, S. K., Luh, D. B., & Kung, S. F. (2014). A taxonomy of creative tourists in creative tourism. Tourism Management, 42, 248-259. https://doi.org/10.1016/j.tourman.2013.11.008

Tepper, S. J. (2002). Creative Assets and the Changing Economy. The Journal of Arts Management, Law and Society, 32(2), 159–168. https://doi.org/10.1080/10632920209596971

TERA Consultants. (2010). Building a digital economy: The importance of saving jobs in the EU's creative industries.

TERA Consultants. (2012). The economic contribution of the creative industries to the EU.

Teodorescu, N., Stăncioiu, A. F., Răvar, A. S., & Botoș, A. (2015). Creativity and innovation-Sources of competitive advantage in the value chain of tourism enterprises. Theoretical & Applied Economics,22(1).https://www.ebsco.ectap.ro/Theoretical_&_Applied_Economics_2015_Spring.pdf#page=35

The Work Foundation. (2007). Staying ahead: The economic performance of the UK's creative industries. The Work Foundation.

Thomas, E., & Magilvy, J. K. (2011). Qualitative rigor or research validity in qualitative research. Journal for specialists in pediatric nursing, 16(2), p151. https://doi.org/10.1111/j.1744-6155.2011.00283.x

Thomas-Francois, K., Shen, Y., Joppe, M. (2021). Grenada: A Vision of Integrated Technological Advancements to Build a Resilient Tourism Future Through Youth Involvement and Consumer-Centric Service Excellence. In: Lewis-Cameron, A., Jordan, LA., Roberts, S. (eds) Managing Crises in Tourism. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-80238-7_9

Throsby, D. (1999). Cultural Capital. Journal of Cultural Economics 23, 3–12 (1999). https://doi.org/10.1023/A:1007543313370

Throsby, David (2001): Economics and Culture. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781107590106

Throsby, D. (2007). Preferred work patterns of creative artists. In V. A. Ginsburgh & D. Throsby (Eds.), Handbook of the Economics of Art and Culture (Vol. 1, pp. 865–894). Elsevier.

Throsby, D. (2010). The economics of cultural policy. Cambridge university press. https://doi.org/10.1007/s10824-011-9138-2

Towse, R. (2003). A Handbook of Cultural Economics. Edward Elgar Publishing.

Towse, R. (2010). A handbook of cultural economics (2nd ed.). Cheltenham: Edward Elgar.

UN. (2013). Creative Economy Report 2013: Widening local development pathways. United Nations. https://doi.org/10.18356/7c1f2d45-en

UNCTAD & UNDP. (2010). Creative economy report 2010: Creative economy: A feasible development option (No. UNCTAD/DITC/TAB/2010/3). Geneva: United Nations.

UNCTAD. (2004). Creative Industries and Development. United Nations Conference on Trade and Development. https://unctad.org/publications-search?f[0]=product%3A594

UNCTAD. (2008). Creative economy report 2008: The challenge of assessing the creative economy towards informed policy-making. United Nations. https://unctad.org/publications-search?f[0]=product%3A594

UNCTAD (2010): Creative Economy Report. Available at: http://unctad.org/es/Docs/ditctab20103_en.pdf (accessed 5 March 2025).

UNCTAD. (2018) Trends in international trade in creative industries (2002–2015) and Country Profiles (2005–2014) (UNCTAD/DITC/TED/2018/3). https://unctad.org/publications-search?f[0]=product%3A594

UNCTAD. (2022). Creative Economy Outlook 2022: The International Year of Creative Economy for Sustainable Development: Pathway to Resilient Creative Industries. United Nations. https:// unctad.org/system/files/_en.pdf (accessed 5 March 2025).

UNCTAD (2024). Creative Economy Outlook 2024 United Nations Publishing. UNCTAD/DITC/TSCE/2024/2 Available at: https://unctad.org/system/files/official-document/ditctsce2024d2_en.pdf (accessed 5 March 2025).

UNDP & UNESCO. (2013). Creative economy report 2013: Widening local development pathways. United Nations. (accessed 5 March 2025).

UNEP and WTO (2005): Making Tourism more Sustainable, A Guide for Policy Makers. Available at: http://www.unep.fr/shared/publications/pdf/DTIx0592xPATourismPolicyEN.pdf (accessed 5 March 2025).

UNESCO (2006): Towards Sustainable Strategies for Creative Tourism. Available at: http://unesdoc.unesco.org/images/0015/001598/159811e.pdf (accessed 5 March 2025).

UNESCO. (2009). UNESCO Framework for Cultural Statistics (FCS). UNESCO Institute for Statistics. (accessed 5 March 2025).

UNESCO. (2013). Creative economy report 2013: Special edition: Widening local development pathways. UNESCO Publishing. (accessed 5 March 2025).

UNESCO. (2018). Creative economy report: The role of digital media. United Nations. https://doi.org/10.18356/3f5f16b4-en

UNESCO (2023). Promoting the Diversity of Cultural Expressions and Creative Economy. UNESCO. Paris, available at https://www.unesco.org/en/articles/promoting-diversity-cultural-expressions-and-creative-economy (accessed 2 February 2025).

United Nations (UN). (2013). Creative economy report 2013: Widening local development pathways. New York: United Nations. https://unctad.org/webflyer/creative-economy-report-2013 (accessed 2 February 2025).

United Nations. (2020). The creative economy report 2020: COVID-19 and the creative economy. United Nations Conference on Trade and Development (UNCTAD). https://doi.org/10.18356/61f1a54d-en (accessed 2 February 2025).

UNWTO_UNDP. (2023). Tourism and the Sustainable Development Goals – Good Practices in the Americas. World Tourism Organization. https://www.undp.org/sites/g/files/zskgke326/files/publications/UNWTO_UNDP_Tourism%20and%20the%20SDGs.pdf (accessed 2 February 2025).

Van Heur, B. (2010). Creative networks and the city: Towards a cultural political economy of aesthetic production. transcript Verlag. http://dx.doi.org/10.14361/transcript.9783839413746

Varotsis, N. (2022). Digital Entrepreneurship and Creative Industries in Tourism: A Research Agenda. Economies, 10(7), 167. https://doi.org/10.3390/economies10070167

Venturelli, S. (2000). From the information economy to the creative economy: Moving culture to the center of international public policy. Washington, DC: Center for Arts and Culture. http://culturalpolicy.org/pdf/venturelli.pdf

Voss, G. B. (2004). Customer experience and value creation in tourism. Journal of Service Research, 7(1), 34–49. https://doi.org/10.1177/1094670504266133

WCED. (1987). Our common future. Oxford: Oxford University Press.

Williams, R. (1981). Culture. Fontana Press.

Wessels, J.-A., & Douglas, A. (2022). Exploring Creative Tourism Potential in Protected Areas: The Kruger National Park Case. Journal of Hospitality & Tourism Research, 46(8), 1482-1499. https://doi.org/10.1177/1096348020983532

Whiting, J., & Hannam, K. (2014). Journeys of inspiration: Working artists' reflections on tourism. Annals of Tourism Research, 49, 65-75. https://doi.org/10.1016/j.annals.2014.08.007

Whiting, S., Barnett, T., & O'Connor, J. (2022). 'Creative City'RIP?. M/C Journal, 25(3). https://doi.org/10.5204/mcj.2901

World Intellectual Property Organization (WIPO). (2003). Guide on surveying the economic contribution of the copyright-based industries. WIPO.

World Tourism Organization (2018), Tourism and Culture Synergies, UNWTO, Madrid, https://doi.org/10.18111/9789284418978

World Commission on Environment and Development. (1987). Our Common Future. Oxford University Press. https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf (accessed on 30 October 2025)

World Tourism Organization (2019), International Tourism Highlights, 2019 Edition, UNWTO, Madrid, DOI: https://doi.org/10.18111/9789284421152

World Tourism Organization and United Nations Development Programme (2017), Tourism and the Sustainable Development Goals – Journey to 2030, UNWTO, Madrid, DOI: https://doi.org/10.18111/9789284419401

Worldwide Governance Indicators, 2024 Update, World Bank (www.govindicators.org), Accessed on 10/30/2024.

Wu, Y.-C., & Lin, S.-W. (2021). Integrated approach for exploring critical elements that affect sustainable development of cultural and creative industries. Journal of Business Economics and Management, 22(3), 596-615. https://doi.org/10.3846/jbem.2021.14261

Xie, P. F. (2010). Authenticating ethnic tourism (Vol. 26). Channel view publications.

Yuan, J., & Liu, Y. (2017). Research on tourism development of cultural and creative industry park based on the network text analysis: A case study of Dafen oil painting village in Shenzhen. In 2017 3rd International Conference on Information Management, ICIM 2017 (pp. 37–41). IEEE.

Żelazny, R., & Pietrucha, J. (2017). Measuring innovation and institution: the creative economy index. Equilibrium. Quarterly Journal of Economics and Economic Policy, 12(1), 43-62. https://doi.org/10.24136/eq.v12i1.3

Zhang, H. (2022). Analysis of the Overall Development Mode of Cultural Tourism under the Creative Economy Environment. Journal of Environmental and Public Health, 2022(1), 3498622. https://doi.org/10.1155/2023/9842135

Zhu, Y. (2012). Performing heritage: Rethinking authenticity in tourism

Zukin, S. (1989). Loft living: Culture and capital in urban change. Rutgers University Press.

Zukin, S. (1995) The Cultures of Cities . Oxford, UK: Blackwell. https://cir.nii.ac.jp/crid/1130000797293542656

Zukin, S. (2009). Naked city: The death and life of authentic urban places. Oxford University Press. https://doi.org/10.1093/oso/9780195382853.001.0001

Zukin, S. (2010) Naked City: The Death and Life of Authentic Urban Places. Oxford, UK: Oxford University Press.

Zumbo, B.D. Opening Remarks to the Special Issue on Validity Theory and the Methods Used in Validation: Perspectives from the Social and Behavioral Sciences. Social Indicators Research 45, 1–3 (1998). https://doi.org/10.1023/A:1006956722368

Zouni, G., Karlis, A., & Georgaki, I. (2019). Investigation of similarities and differences between Dance Tourism markets: the case of Patras, Greece. Tourism & Heritage, 16-31.

LIST OF TABLES

Table 1. Definitions and operationalization of key concepts in the creative economy 3
Table 2. Methodological framework of the research 10
Table 3. Classification of cultural and creative i ndustries 30
Table 4. Creative industries classification: a comparative framework approach 33
Table 5. Systematic overview and conceptual classification of creativity indices based on literature review 55
Table 6. Synthesis of key literature on creative tourism concepts 68
Table 7. List of experts participating in the research 76
Table 8. Research findings on dominant themes and challenges in destination development 84
Table 9. List of experts participating in the research (Delphi method) 97
Table 10. Overview of indicators for Module 1 – Enabling environment 104
Table 11. Overview of Indicators for Module 2 – Creative base 107
Table 12. Overview of Indicators for Module 3 – Cultural vibrancy 108
Table 13. List of expert-proposed indicators 112
Table 14. Descriptive statistics of indicators across the “Human capital” dimension 116
Table 15. Distribution of responses across the “Human capital” dimension 117
Table 16. Descriptive statistics of indicators across the “Openness and tolerance” dimension . 118
Table 17. Distribution of responses across the “Openness and tolerance” dimension 118
Table 18. Descriptive statistics of indicators across the “Liveability and amenities” dimension 119
Table 19. Distribution of responses across the “Liveability and amenities” dimension 120
Table 20. Descriptive statistics of indicators across the „Governance“ dimension 120
Table 21. Distribution of responses across the “Governance” dimension 121
Table 22. Descriptive statistics of indicators across the “Accessibility“ dimension 122
Table 23. Distribution of responses across the “Accessibility“ dimension 122
Table 24. Descriptive statistics of indicators across the “Creative Resources” dimension 123
Table 25. Distribution of responses across the “Creative resources” dimension 124
Table 26. Descriptive statistics of indicators across the “ Creative industry output ” dimension 125
Table 27. Distribution of responses across the “ Creative industry output ” dimension 126
Table 28. Descriptive statistics of indicators across the “ Intellectual property and innovation ” dimension 126
Table 29. Distribution of responses across the “ Intellectual property and innovation ” dimension 127
Table 30. Descriptive statistics of indicators across the “ Cultural venues and facilities ” dimension 128
Table 31. Distribution of responses across the “ Cultural venues and facilities ” dimension 128
Table 32. Descriptive statistics of indicators across the “ Cultural participation and attractiveness“ dimension 129
Table 33. Distribution of responses across the “ Cultural participation and attractiveness ” dimension 129
Table 34. Final indicators according to expert consensus and data availability 132

Table 35. European Creativity Index (EU-CEI) values across EU member states (2011–2019) 146
Table 36. Ranking of countries according to the European Creativity Index (EU-CEI) – Domain: Creative basis 148
Table 37. Ranking of countries according to the European Creativity Index (EU-CEI) – Domain Enabling environment 150
Table 38. Ranking of countries according to the European Creativity Index (EU-CEI) – Domain: Cultural vibrancy 152
Table 39. Empirical methodology: panel and GMM analysis of European Creativity Index (EU-CEI) and tourism performance 160
Table 40. Research design and econometric model scheme 163
Table 41. Empirical findings in the model 180
Table 42. Qualitative findings on the Working Hypothesis 185
Table 43. Empirical results of Hypothesis H1 and its sub-hypotheses testing 186

LIST OF FIGURES

Figure 1. Scopus based identification of experts and sampling criteria for qualitative interviews 75
Figure 2. Correlation matrix and indicator selection procedure 142
Figure 3. Principal Component Analysis results for the final set of Indicators (EU-CEI) 143
Figure 4. Spatial and developmental disparities in the European Creativity Index (EU-CEI) 2011–2019 154
Figure 5. Creative economy and tourism: the empirical research model 165

APPENDICES

Appendix 1. Questionnaire for assessing the synergy between the creative economy and tourism (theoretical phase)

QUESTIONNAIRE
Exploring the synergy between the Creative economy and Tourism

The aim of this survey is to explore the relationship between creative economy and tourism and how this synergy may contribute to sustainable development and economic stability. The questions seek to examine the ways in which these two concepts interact, their challenges and benefits and how their interactions might shape long-term development.

Please answer the questions based on your personal experience, expertise and observations. Your responses will help deepen the understanding of this dynamic and all information will be used solely for academic and research purposes.

---

1. Basic Information
Full Name:
Position / Title:
Institution:
Email Address:
Country of Residence:

2. The link between the Creative economy and Tourism

Objective: To explore the interconnection between the creative economy/creative industries and tourism and to understand how these industries contribute to one another.

Question 1: How would you describe the relationship between the creative economy and tourism in your region? What are some examples or activities that demonstrate this connection?

Question 2: What role does the creative economy play in enhancing tourism activities?

Question 3: In what ways does tourism contribute to the development of the cultural and creative sectors?

Question 4: Based on your experience, which types of cultural and creative events or activities most contribute to attracting tourists to a destination?

a) Which elements of these events most reflect the unique characteristics or identity of the destination?

b) How would you describe the relationship between cultural activities and tourism offerings in shaping long-term tourist interest?

Question 5: To what extent is creativity utilized in tourism to create new and innovative experiences for visitors?

a) Can you identify any innovations that have enabled better integration of cultural and creative elements into tourism offerings?
b) How do these innovations affect the long-term attractiveness and competitiveness of tourist destinations?

3. Impact on Sustainable Development and Local Communities

Objective: To explore how the synergy between creative economy/ industries and tourism contributes to sustainable development, cultural heritage preservation and the economic stability of local communities.

Question 6: How can creative industries be connected to business models that support ecological sustainability in tourism?

a) What specific strategies or initiatives do you consider most important for balancing economic growth and environmental goals in tourism?
b) What changes in business approaches could promote more sustainable practices within the industry?

Question 7: In what ways can the interconnection of the creative economy and tourism influence sustainable development and the overall economy?
Please select the most important aspects from the following list and feel free to share any additional thoughts or examples you might have:

Preservation of cultural heritage
Stimulating the local economy
Green business practices
Enriching the tourist experience
Connecting communities
Fostering innovation and diversification
Promoting education and awareness

Promoting local identities
Networking and collaboration
Other (please specify)

Question 8: How can cultural heritage be integrated into tourism offerings in a way that creates added value for local communities?

a) How can creative industries contribute to the preservation and reinterpretation of cultural heritage in ways that are both attractive to visitors and socially beneficial?
b) Could you share examples of successful initiatives that connect cultural heritage with tourism and creative industries?

Question 9: What role do creative industries play in creating new opportunities for small entrepreneurs in tourist destinations?

a) How can initiatives in creative industries be linked to local economies and support the development of small and medium-sized enterprises?
b) What are, in your experience, the biggest challenges faced by small entrepreneurs in the creative tourism sector?

4. New Trends and Future Development

Objective: To understand how creative industries and tourism can shape the future development of destinations, with an emphasis on long-term sustainability, emotional connection between tourists and destinations and regional transformation.

Question 10: To what extent can creative industries help strengthen the emotional connection between tourists and a destination?

a) How could creative activities improve the sense of belonging for visitors and promote the long-term sustainability of their visits?
b) What are the most important components that need to be present for tourists to feel the "authenticity" of a destination?

Question 11: How do art, sound and movement influence the creation of memorable experiences for tourists, particularly in terms of sustainability and cultural values?

a) Could you provide examples where these elements have been successfully integrated into tourism, enhancing the overall visitor experience?

b) How can these elements be used as tools to extend tourist stays or increase destination visitation?

Question 12: How can creative industries impact the transformation of regional communities, especially in less developed or rural areas?

a) What key factors enable creative tourism to contribute to the stability and long-term sustainability of these communities?

b) What kinds of policies or support are necessary to ensure a balance between tourism and sustainable development in these areas?

Question 13: Based on your experience, what are the main advantages and disadvantages of connecting creative industries and tourism for achieving long-term sustainability and economic growth?

a) What changes in approaches or strategies do you believe are essential for better integration of these sectors in the future?

b) What policies or initiatives should be prioritized for the continued development of sustainable creative tourism?

Question 14: How do you envision the future relationship between the creative economy and tourism?

Question 15: Do you have any additional suggestions or examples that could be useful for further research on the synergy between creative economy / industries and tourism?

Confidentiality Notice:

All responses will be treated with the utmost confidentiality and will be used exclusively for academic purposes. The questionnaire will remain open for 15 days. Thank you for your cooperation and support in this important research initiative.

Thank you for participating in this survey. Your responses will be invaluable for understanding how creative industries can contribute to the sustainable development of tourism and the economy.

Appendix 2. Delphi questionnaire for identifying creative economy indicators (round 1: instrumental research phase)

DELPHI EXPERT PANEL QUESTIONNAIRE – 1st round
Creative economy indicators for measurement.

In this first questionnaire we present the proposed system of indicators for evaluation.
The questionnaire is divided into three groups of indicators- Enabling Environment, Creative Economy, Cultural Vibrancy. Each indicator must be rated according to its appropriateness to the index. You will also find an open question in each block, so you can include new indicators that were not included in the original proposal.
We wish to know **YOUR VIEW** of the importance of each of the listed indicators of the creative economy.
Thank you for your participation and we will keep you informed of the progress of this survey!

Karmen Mikulić, PhD student,
Faculty of tourism and hospitality management, Opatija; University of Rijeka, Croatia
karmenm@fthm.hr

MODULE 1. ENABLING ENVIRONMENT

The first domain of the index evaluates the creative capacity – ENABLING ENVIRONMENT from indicators of various types.

1. HUMAN CAPITAL
2. OPENNESS AND TOLLERANCE
3. LIVEABILITY AND AMENITIES
4. GOVERNANCE
5. ACCESSIBILITY

Based on your considered opinion, please rate the adequacy of the following metrics to measure the creative dimensions of a given environment using the scale from 0 (worst rating) to 10 (best rating).

1. ENABLING ENVIRONMENT			
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**SCORE**
A. HUMAN CAPITAL	**EDUCATION**	NUMBER OF HIGHER EDUCATION INSTITUTIONS / *ETER*	
		HIGHER EDUCATION GRADUATES/ *ETER*	
		HIGHER EDUCATION GRADUATES IN ICT/ *ETER*	
		HIGHER EDUCATION GRADUATES IN ARTS AND HUMANITIES/ *ETER*	
		PUBLIC EXPENDITURE ON EDUCATION PC / *GOV_10A_EXP EUROSTAT; SE.XPD.TOTL.GB.ZS WORLD BANK; UIS*	
		NEW DOCTORATE GRADUATES (I SCED) PER 1000 OF THE POPULATION AGED 25-34 / *EDUC_UOE_GRAD06 EUROSTAT*	
	KNOWLEDGE INTENSIVE RESOURCES	HUMAN RESOURCES IN SCIENCE AND TECHNOLOGY (HRST) / *TSC00025 EUROSTAT*	
		R&D PERSONNEL AND RESEARCHERS / *RD_P_PERSLF EUROSTAT*	

1. ENABLING ENVIRONMENT			
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**SCORE**
		HIGH-TECH INDUSTRY AND KNOWLEDGE-INTENSIVE SERVICES/ *HTEC_EMP_NISCED2 EUROSTAT*	
B. OPENNESS AND TOLERANCE	**OPENNESS AND TOLERANCE**	ATTITUDE OF POPULATION TOWARD FOREIGN VISITORS /	
		FOREIGN BORN POPULATION / *TPS00178 OR MIGR_POP4CTB EUROSTAT*	
		MOBILE GRADUATES FROM ABROAD/ *EDUC_UOE_MOBG01 EUROSTAT*	
		FOREIGN TERTIARY EDUCATION GRADUATES / *ETER; EDAT_LFS_9912 OR EDUC_ITERTC EUROSTAT*	
		FOREIGN DOCTORATE STUDENTS AS A % OF ALL DOCTORATE STUDENTS/ *EIS 2022 - RIS 2021 EUROPEAN COMMISSION*	
		EMPLOYMENT RATE OF FOREIGNERS / *LFST_R_LFP2ACTRC OR LFST_R_LFE2EMPRC EUROSTAT*	
C. LIVEABILITY AND AMENITIES	**LIVEABILITY AND AMENITIES**	PURCHASING POWER PARITIES (PPPS), PRICE LEVEL INDICES AND REAL EXPENDITURES / *PRC_PPP_IND EUROSTAT*	
		CRIME, VIOLENCE OR VANDALISM IN THE AREA / *ILC_MDDW03 EUROSTAT*	
		HEALTH CARE EXPENDITURE AS A SHARE OF GDP / *ENPE_HLTH_EXP EUROSTAT*	
		EXPERIENCED WELL BEING SCORE IN HAPPY PLANET INDEX / *HAPPYPLANETINDEX*	
		HOUSEHOLD INCOME / *OECD*	
		EMPLOYMENT RATE / *LFSI_EMP_A EUROSTAT*	
		NUMBER OF YEARS OF LIFE EXPECTANCY / *DEMO_MLEXPEC EUROSTAT*	
		PERCENTAGE OF THE YOUNG POPULATION FROM 5 TO 34 YEARS OF TOTAL POPULATION / *PRC_PPP_IND EUROSTAT*	
D. GOVERNANCE	**GOVERNANCE**	COUNTRY CAPACITY TO RETAIN TALENT /*WEF; WORLD BANK*	
		COUNTRY CAPACITY TO ATTRACT TALENT / *WEF; WORLD BANK*	
		VOICE AND ACCOUNTABILITY / *WEF; WORLD BANK*	
		POLITICAL STABILITY AND ABSENCE OF VIOLENCE/TERRORISM / *WEF; WORLD BANK*	
		GOVERNMENT EFFECTIVENESS / *WEF; WORLD BANK*	
		REGULATORY QUALITY/ *WEF; WORLD BANK*	

1. ENABLING ENVIRONMENT			
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**SCORE**
		RULE OF LAW / *WEF; WORLD BANK*	
		CONTROL OF CORRUPTION / *WEF; WORLD BANK*	
		DIRECT PUBLIC EXPENDITURE ON CULTURE / *GOV_10A_EXP EUROSTAT*	
		CAPACITY FOR INNOVATION / *WEF; WORLD BANK*	
		GROSS DOMESTIC SPENDING ON R&D / *OECD; WEF; WORLD BANK*	
E. ACCESSIBILITY	**ACCESSIBILITY**	PASSENGER FLIGHTS / *TTR00012 EUROSTAT*	
		ACCESSIBILITY BY AIR / *AVIA_IF_ARP EUROSTAT*	
		ACCESSIBILITY BY ROAD / *TTR00002 EUROSTAT*	
		ACCESSIBILITY BY RAIL / *RAIL_IF_TRACKS EUROSTAT*	

QUESTION: What new indicator (s) would you include in this module?

DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**SCORE**

Additional comment

MODULE 2. CREATIVE ECONOMY

The second domain of the index evaluates the creative economy from indicators of various types.

1. CREATIVE RESOURCES
2. CREATIVE INDUSTRY OUTPUT
3. INTELLECTUAL PROPERTY AND INNOVATION

Based on your considered opinion, please rate the adequacy of the following metrics to measure the creative dimensions of a given environment using the scale from 0 (worst rating) to 10 (best rating).

2. CREATIVE ECONOMY			
DIMENSION	**SUB-DIMENSION**	**INDICATOR**	**SCORE**
A. CREATIVE RESOURCES	**CREATIVE OCCUPATIONS**	NUMBER OF PEOPLE EMPLOYED IN CREATIVE OCCUPATIONS / *LFSA_EISN2 OR LFSA_EGAI2D EUROSTAT*	
	CREATIVE (EMPLOYMENT) INDUSTRIES	SHARE OF EMPLOYMENT IN CREATIVE INDUSTRIES / *LFSA_EGAN22D EUROSTAT*	
	CREATIVE ENTERPRISES	NUMBER OF CREATIVE ENTERPRISES / *SBS_NA_1A_SE_R2 OR SBS_SC_SCA_R2 EUROSTAT*	
	NEWLY CREATED ENTERPRISES	NUMBER OF PERSONS EMPLOYED IN NEWLY CREATED CREATIVE ENTERPRISES / *BD_9BD_SZ_CL_R2 EUROSTAT*	
B. CREATIVE INDUSTRY OUTPUT	**CREATIVE TRADE**	CREATIVE GOODS AND SERVICES EXPORT / *CULT_TRD_PRD OR BOP_ITS6_DET EUROSTAT OR EXT_TEC09 EUROSTAT; UNCTAD; WTO*	
	TURNOVER	TURNOVER IN CREATIVE INDUSTRIES / *CULT_ENT_VAL EUROSTAT*	
	VALUE ADDED	GROSS VALUE ADDED AT BASIC PRICES / *NAMA_10R_3GVA EUROSTAT*	
C. INTELLECTUAL PROPERTY AND INNOVATION	**ICT PATENT APPLICATION**	PATENT APPLICATIONS TO THE EUROPEAN PATENT OFFICE / *SDG_09_40 EUROSTAT*	
	COMMUNITY DESIGN APPLICATIONS	COMMUNITY DESIGN APPLICATIONS / IPR_DA_TOT EUROSTAT	

QUESTION: What new indicator (s) would you include in this module?

DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**SCORE**

Additional comment

MODULE 3. CULTURAL VIBRANCY

The third domain of the index evaluates elements of cultural vibrancy.

1. CULTURAL VENUES AND FACILITIES
2. CULTURAL PARTICIPATION AND ATTRACTIVENESS

Based on your considered opinion, please rate the adequacy of the following metrics to measure the creative dimensions of a given environment using the scale from 0 (worst rating) to 10 (best rating).

3. CULTURAL VIBRANCY			
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**SCORE**
A. CULTURAL VENUES AND FACILITIES	**MUSEUMS**	NUMBER OF MUSEUMS / *EGMUS*	
	THEATRES	NUMBER OF THEATRES *URB_CTOUR EUROSTAT*	
	CINEMA	NUMBER OF CINEMA SEATS / *URB_CTOUR EUROSTAT*	
	UNESCO CULTURAL SITES	NUMBER OF WORLD HERITAGE CULTURAL SITES / *UNESCO; WEF*	
B. CULTURAL PARTICIPATION AND ATTRACTIVENESS	**MUSEUM VISITORS**	NUMBER OF VISITORS PER MUSEUM / *EGMUS; URB_CTOUR EUROSTAT*	
	CULTURAL EXPENDITURE	AVERAGE ANNUAL CULTURAL EXPENDITURE PER HOUSEHOLD/ *PRC_HICP_AIND EUROSTAT*	
	CULTURAL ACTIVITIES ATTENDANCE	PERCENTAGE OF PERSONS PARTICIPATING IN CULTURAL ACTIVITIES / *ILC_SCP03 EUROSTAT*	
	TOURIST OVERNIGHT STAYS	TOURIST OVERNIGHT STAYS/ *TOUR_OCC_NINAT EUROSTAT*	
	SATISFACTION WITH CULTURAL FACILITIES	PERCENTAGE OF THE POPULATION THAT IS VERY SATISFIED WITH CULTURAL FACILITIES / *URB_PERCEP EUROSTAT*	
	CULTURAL VALUES	DEGREE OF PERSONAL IMPORTANCE OF CULTURE / *EGMUS QA3*	

QUESTION: What new indicator (s) would you include in this module?

DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**SCORE**

Thank you and best regards.

Appendix 3. Delphi questionnaire for identifying creative economy indicators (round 2: instrumental research phase)

DELPHI EXPERT PANEL QUESTIONNAIRE – 2nd round

Indicators with average scores of less than 7 have been removed from the new index [1]. The proposals were included in the respective dimensions after their analysis and replacement. These **new indicators** differ from the others in that they have no average score and **appear in blue cells**.

At this point, I would like to ask you to evaluate the indicators again with a functional and global vision of the index. Indicators that do not reach a minimum average will be removed from the final index.

[1] **Indicators excluded from the index:**
3 higher education graduates in ICT
10 foreign born population
11 mobile graduates from abroad
12 foreign tertiary education graduates
13 foreign doctorate students as a % of all doctorate students
14 employment rate of foreigners
15 purchasing power parities, price level indices and real expenditures
16 crime, violence or vandalism in the area
17 health care expenditure as a share of GDP
18 experienced well -being score in happy planet index
19 household income
20 employment rate
21 number of years of life expectancy
22 percentage of the young population from 5 to 34 years of total population
34 passenger flights
35 accessibility by air
36 accessibility by road
37 accessibility by rail
44 gross value added at basic prices
46 community design applications
49 number of cinema seats
51 number of visitors per museum
54 tourist overnight stays

STRUCTURE OF INDICATORS RESULTING FROM THE FIRST PHASE OF THE PANEL OF EXPERTS

We ask you to reassess the appropriateness of these indicators using the same scale from 0 (worst score) to 10 (best score).

MODULE 1. ENABLING ENVIRONMENT

1. ENABLING ENVIRONMENT				
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**AVERAGE SCORE OBTAINED**	**NEW ASSESSMENT**
A. HUMAN CAPITAL	**EDUCATION**	1 NUMBER OF HIGHER EDUCATION INSTITUTIONS PC *ETER*	**7**	
		2 HIGHER EDUCATION GRADUATES PC *ETER*	**7,2**	
		3 PUBLIC EXPENDITURE ON EDUCATION PC *GOV_10A_EXP EUROSTAT;*	**7,3**	

		4 NEW DOCTORATE GRADUATES (ISCED) PC OF THE POPULATION AGED 25-34 *EDUC_UOE_GRAD06 EUROSTAT*	**7,5**	

A. HUMAN CAPITAL	**EDUCATION**	5 NUMBER OF HIGHER EDUCATION INSTITUTES OFFERING DEGREES IN CCI PC *Eurydice OR contact representatives of >BFUG members (each country separately)*	
		6 HIGHER EDUCATION GRADUATES IN ARTS AND HUMANITIES PC *ETER*	
		7 HARD SCIENCES (a) Data on the demand for professionals in hard science fields. b) Trends in STEM (Science, Technology, Engineering and Mathematics) education. c) Graduation rates and enrollment in programs. d) Gender and diversity statistics in hard sciences. *https://www.cedefop.europa.eu/en/data-insights/rising-stems*	
		8 MEASURES ON THE CREATIVE ACHIEVEMENTS OF ARTISTS AND OTHERS E.G. FILMMAKERS, MUSICIANS, ETC, WITH INTERNATIONAL RENOWN (Awards and Nominations; Box Office and Album Sales; Critical Reviews; Cultural Impact; Influence and Legacy; Exhibition and Performance Data; Social Media Metrics; Academic Citations; Global Reach; Media Coverage; Fan Base; Art Market Data).	
		9 PROVISION OF ARTS AND CULTURE IN THE CURRICULUM (Inclusion in Curriculum Standards; Dedicated Curriculum Hours; Teacher Qualifications; Student Enrollment…).	

A. HUMAN CAPITAL	**KNOWLEDGE INTENSIVE RESOURCES**	10 HUMAN RESOURCES IN SCIENCE AND TECHNOLOGY (HRST) PC *TSC00025 EUROSTAT*	**7,4**	
		11 R&D PERSONNEL AND RESEARCHERS PC *RD_P_PERSLF EUROSTAT*	**7,5**	
		12 HIGH-TECH INDUSTRY AND KNOWLEDGE-INTENSIVE SERVICES PC *HTEC_EMP_NISCED2 EUROSTAT*	**7,8**	

B. OPENNESS AND TOLERANCE	**OPENNESS AND TOLERANCE**	13 ATTITUDE OF POPULATION TOWARD FOREIGN VISITORS	**7,2**	

B. OPENNESS AND TOLERANCE	**OPENNESS AND TOLERANCE**	14 LEVEL OF TRUST TOWARDS DIFFERENT GROUP OF POPULATION (FAMILY, NEIGHBOR, FOREIGNER, DIFFERENT RELIGION) *(WORLD VALUE SURVEY Q57)*	

C. LIVEABILITY AND AMENITIES	**LIVEABILITY AND AMENITIES**	15 SALARY LEVELS *EUROSTAT NAMA_10_FTE Average full time adjusted salary per employee*	

D. GOVERNANCE	**GOVERNANCE**	16 COUNTRY CAPACITY TO RETAIN TALENT *WEF; WORLD BANK*	**7,9**	
		17 COUNTRY CAPACITY TO ATTRACT TALENT *WEF; WORLD BANK*	**8**	
		18 VOICE AND ACCOUNTABILITY *WEF; WORLD BANK*	**7**	
		19 POLITICAL STABILITY AND ABSENCE OF VIOLENCE/TERRORISM *WEF; WORLD BANK*	**7,7**	
		20 GOVERNMENT EFFECTIVENESS *WEF; WORLD BANK*	**7,8**	
		21 REGULATORY QUALITY *WEF; WORLD BANK*	**7,8**	
		22 RULE OF LAW *WEF; WORLD BANK*	**7,2**	
		23 CONTROL OF CORRUPTION *WEF; WORLD BANK*	**7,1**	
		24 DIRECT PUBLIC EXPENDITURE ON CULTURE *GOV_10A_EXP EUROSTAT*	**7,5**	
		25 CAPACITY FOR INNOVATION *WEF; WORLD BANK*	**8,1**	
		26 GROSS DOMESTIC SPENDING ON R&D *OECD; WEF; WORLD BANK*	**7,7**	

D. GOVERNANCE	**GOVERNANCE**	27 STATUS OF THE ARTIST REGULATION / POLICY TO SUPPORT THE 1980 DECLARATION ON THE STATUS OF THE ARTIST	
		28 SIGNATORY OF THE 2005 UN CONVENTION ON THE PROTECTION AND PROMOTION OF THE DIVERSITY OF CULTURAL EXPRESSIONS	
		29 EXISTENCE OF PREFERENTIAL TREATMENT FOR ARTISTS (MOBILITY) AND CULTURAL GOODS AND SERVICES	

Additional comment on MODULE 1. ENABLING ENVIRONMENT

MODULE 2. CREATIVE ECONOMY

1. CREATIVE ECONOMY				
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**AVERAGE SCORE OBTAINED**	**NEW ASSESSMENT**

A. CREATIVE RESOURCES	**CREATIVE OCCUPATIONS**	30 NUMBER OF PEOPLE EMPLOYED IN CREATIVE OCCUPATIONS PC *LFSA_EISN2 OR LFSA_EGAI2D EUROSTAT*	**9**	
	CREATIVE (EMPLOYMENT) INDUSTRIES	31 SHARE OF EMPLOYMENT IN CREATIVE INDUSTRIES PC *LFSA_EGAN22D EUROSTAT*	**8,5**	
	CREATIVE ENTERPRISES	32 NUMBER OF CREATIVE ENTERPRISES PC *SBS_NA_1A_SE_R2 OR SBS_SC_SCA_R2 EUROSTAT*	**8,3**	
	NEWLY CREATED ENTERPRISES	33 NUMBER OF PERSONS EMPLOYED IN NEWLY CREATED CREATIVE ENTERPRISES PC *BD_9BD_SZ_CL_R2 EUROSTAT*	**8,3**	

A. CREATIVE RESOURCES	**CREATIVE OCCUPATIONS**	34 NUMBER OF CREATIVE OCCUPATIONS IN ADJACENT INDUSTRIES SUCH AS TOURISM, EDUCATION,LEISURE SERVICES	
		35 NUMBER OF CREATIVE OCCUPATIONS EMPLOYED IN ALL OTHER SECTORS APART FROM THOSE COUNTED AS "CREATIVE"	
	CREATIVE (EMPLOYMENT) INDUSTRIES	36 PERCENTAGE OF PERSONS WITH CREATIVE QUALIFICATIONS REGARDLESS OF WHETHER THEY ARE EMPLOYED	
	NEWLY CREATED ENTERPRISES	37 NEWLY ENTERPRISES RETAINED/ NUMBER OF NEWLY CREATED CREATIVE ENTERPRISES	
		38 MULTI DISICPLINARY "THIRD SPACES" COWORKING HUBS, INCUBATORS, INNOVATION HUBS	

B. CREATIVE INDUSTRY OUTPUT	**CREATIVE TRADE**	39 CREATIVE GOODS AND SERVICES EXPORT *CULT_TRD_PRD OR BOP_ITS6_DET EUROSTAT OR EXT_TEC09 EUROSTAT; UNCTAD; WTO*	**7,6**	
	TURNOVER	40 TURNOVER IN CREATIVE INDUSTRIES *CULT_ENT_VAL EUROSTAT*	**8**	

B. CREATIVE INDUSTRY OUTPUT	**CREATIVE TRADE**	41 EXPORT BALANCE OF TRADE INDICATORS	

C. INTELLECTUAL PROPERTY AND INNOVATION	**ICT PATENT APPLICATION**	42 PATENT APPLICATIONS TO THE EUROPEAN PATENT OFFICE *SDG_09_40 EUROSTAT*	**7**	

C. INTELLECTUAL		43 REGULATION ADOPTION OF WIPO REGULATIONS (WIPO Treaty Ratification Rate)	
		44 COPYRIGHT LAWS AND REGULATIONS (Copyright Compliance Rate; Number of Copyright Registrations…)	

PROPERTY AND INNOVATION		45 EXISTENCE / PROVISION OF DEDICATED CREATIVE INDUSTRIES FINANCE SCHEMES AND INVESTMENT / INVESTOR READINESS	
		46 EXISTENCE OF R&D PROGRAMMES IN CREATIVE TECHNOLOGY AND IN ROLE OF CCIS FOR SUSTAINABLE DEVELOPMENT	

Additional comment on MODULE 2. CREATIVE ECONOMY

MODULE 3. CULTURAL VIBRANCY

3. CULTURAL VIBRANCY				
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**AVERAGE SCORE OBTAINED**	**NEW ASSESSMENT**
A. CULTURAL VENUES AND FACILITIES	**MUSEUMS**	47 NUMBER OF MUSEUMS *EGMUS*	**7,4**	
	THEATRES	48 NUMBER OF THEATRES *URB_CTOUR EUROSTAT*	**7,0**	
	UNESCO CULTURAL SITES	49 NUMBER OF WORLD HERITAGE CULTURAL SITES *UNESCO; WEF*	**7**	

A. CULTURAL VENUES AND FACILITIES		50 ART GALLERIES AND PERFOMING ARTS VENUES (E.G. CONCERT HALLS); CULTURAL FESTIVALS	
		51 NIGHT TIME ECONOMY (BARS, RESTARAUNTS, STREET THEATRE, CONTEMPORARY MUSIC SCENE, FESTIVALS)	
		52 CULTURAL AND CREATIVE HUBS SAFE SPACES FOR CULTURAL DIALOGUE, CO-WORKING SPACES, IMPACT HUBS ETC.	
		53 FESTIVALS SCALE, DIVERSITY AND FREQUENCY OF INDEPENDENT FESTIVALS AND EVENTS	
		54 NUMBER OF ELECTRONIC ARTS PRACTITIONERS	

B. CULTURAL PARTICIPATION AND ATTRACTIVENESS	**CULTURAL EXPENDITURE**	55 AVERAGE ANNUAL CULTURAL EXPENDITURE PER HOUSEHOLD *PRC_HICP_AIND EUROSTAT*	**8,1**	
	CULTURAL ACTIVITIES ATTENDANCE	56 PERCENTAGE OF PERSONS PARTICIPATING IN CULTURAL ACTIVITIES *ILC_SCP03 EUROSTAT*	**8,5**	
	SATISFACTION WITH CULTURAL FACILITIES	57 PERCENTAGE OF THE POPULATION THAT IS VERY SATISFIED WITH CULTURAL FACILITIES *URB_PERCEP EUROSTAT*	**8**	
	CULTURAL VALUES	58 DEGREE OF PERSONAL IMPORTANCE OF CULTURE	**8,5**	

		EGMUS QA3		

B. CULTURAL PARTICIPATION AND ATTRACTIVENESS		59 CULTURAL PARTICIPATION BY DEGREE OF URBANIZATION *EUROSTAT*	
		60 CULTURAL PARTICIPATION BY COUNTRY OF BIRTH *EUROSTAT*	
	ONLINE CULTURAL PARTICIPATION	61 VIRTUAL EVENT PARTICIPATION	
		62 NUMBER OF UNIQUE VISITORS TO CULTURAL WEBSITES *Google Analytics and Website Analytics Tools*	

Additional comment on MODULE 3. CULTURAL VIBRANCY

General opinion on the structure of all three modules

Appendix 4. Delphi questionnaire for identifying creative economy indicators (Final set of indicators - instrumental research phase)

DELPHI EXPERT PANEL QUESTIONNAIRE

MODULE 1. ENABLING ENVIRONMENT (19 indicators)

1. ENABLING ENVIRONMENT				
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**AVERAGE SCORE OBTAINED 1st round**	**AVERAGE SCORE OBTAINED 2nd round**
A. HUMAN CAPITAL	**EDUCATION**	**2 HIGHER EDUCATION GRADUATES** ***ETER***	**7,2**	**7**
		3 PUBLIC EXPENDITURE ON EDUCATION ***GOV_10A_EXP EUROSTAT***	**7,3**	**7**
		4 NEW DOCTORATE GRADUATES (ISCED) PC OF THE POPULATION AGED 25-34 ***EDUC_UOE_GRAD06 EUROSTAT***	**7,5**	**7**
A. HUMAN CAPITAL	**EDUCATION**	**5 NUMBER OF HIGHER EDUCATION INSTITUTES**		**8**
		6 HIGHER EDUCATION GRADUATES IN ARTS AND HUMANITIES ***ETER***		**7**
A. HUMAN CAPITAL	**KNOWLEDGE INTENSIVE RESOURCES**	**10 HUMAN RESOURCES IN SCIENCE AND TECHNOLOGY (HRST)** ***TSC00025 EUROSTAT***	**7,4**	**7**
		11 R&D PERSONNEL AND RESEARCHERS ***RD_P_PERSLF EUROSTAT***	**7,5**	**7**
		12 HIGH-TECH INDUSTRY AND KNOWLEDGE-INTENSIVE SERVICES ***HTEC_EMP_NISCED2 EUROSTAT***	**7,8**	**8**
B. OPENNESS AND TOLERANCE	**OPENNESS AND TOLERANCE**	**13 ATTITUDE OF POPULATION TOWARD FOREIGN VISITORS/** ***TTCR PILLAR***	**7,2**	**7**
B. OPENNESS AND TOLERANCE	**OPENNESS AND TOLERANCE**	**14 LEVEL OF TRUST TOWARDS DIFFERENT GROUP OF POPULATION (FAMILY, NEIGHBOR, FOREIGNER, DIFFERENT RELIGION)** ***(WORLD VALUE SURVEY Q57)***		7
C. LIVEABILITY AND AMENITIES	**LIVEABILITY AND AMENITIES**	**15 SALARY LEVELS** ***EUROSTAT NAMA_10_FTE***		7

D. GOVERNANCE	**GOVERNANCE**	**16 COUNTRY CAPACITY TO RETAIN TALENT** *WEF; WORLD BANK*	**7,9**	**8**
		17 COUNTRY CAPACITY TO ATTRACT TALENT *WEF; WORLD BANK*	**8**	8
		19 POLITICAL STABILITY AND ABSENCE OF VIOLENCE/TERRORISM *WEF; WORLD BANK*	**7,7**	8
		20 GOVERNMENT EFFECTIVENESS *WEF; WORLD BANK*	**7,8**	8
		21 REGULATORY QUALITY *WEF; WORLD BANK*	**7,8**	8
		24 DIRECT PUBLIC EXPENDITURE ON CULTURE *GOV_10A_EXP EUROSTAT*	**7,5**	8
		25 CAPACITY FOR INNOVATION *WEF; WORLD BANK*	**8,1**	9
		26 GROSS DOMESTIC SPENDING ON R&D *OECD; WEF; WORLD BANK*	**7,7**	8

MODULE 2. CREATIVE ECONOMY (12 indicators)

1. CREATIVE ECONOMY				
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**AVERAGE SCORE OBTAINED**	**NEW ASSESSMENT**
A. CREATIVE RESOURCES	**CREATIVE OCCUPATIONS**	**30 NUMBER OF PEOPLE EMPLOYED IN CREATIVE OCCUPATIONS** *LFSA_EISN2 EUROSTAT*	**9**	**9**
	CREATIVE (EMPLOYMENT) INDUSTRIES	**31 SHARE OF EMPLOYMENT IN CREATIVE INDUSTRIES** *LFSA_EGAN22D EUROSTAT*	**8,5**	**9**
	CREATIVE ENTERPRISES	**32 NUMBER OF CREATIVE ENTERPRISES** *SBS_SC_SCA_R2 EUROSTAT*	**8,3**	**9**
	NEWLY CREATED ENTERPRISES	**33 NUMBER OF PERSONS EMPLOYED IN NEWLY CREATED CREATIVE ENTERPRISES** *BD_9BD_SZ_CL_R2 EUROSTAT*	**8,3**	**9**

A. CREATIVE RESOURCES	**CREATIVE OCCUPATIONS**	**34 NUMBER OF CREATIVE OCCUPATIONS IN ADJACENT INDUSTRIES SUCH AS TOURISM, EDUCATION,LEISURE SERVICES**	8
		35 NUMBER OF CREATIVE OCCUPATIONS EMPLOYED IN ALL OTHER SECTORS APART FROM THOSE COUNTED AS "CREATIVE"	8
	NEWLY CREATED ENTERPRISES	**37 NEWLY ENTERPRISES RETAINED/ NUMBER OF NEWLY CREATED CREATIVE ENTERPRISES**	8

	CREATIVE TRADE	**39 CREATIVE GOODS AND SERVICES EXPORT**	**7,6**	**8**

B. CREATIVE INDUSTRY OUTPUT		***CULT_TRD_PRD OR BOP_ITS6_DET EXT_TEC09 EUROSTAT***		
	TURNOVER	**40 TURNOVER IN CREATIVE INDUSTRIES** ***CULT_ENT_VAL EUROSTAT***	**8**	**8**

B. CREATIVE INDUSTRY OUTPUT	**CREATIVE TRADE**	**41 EXPORT BALANCE OF TRADE INDICATORS (Trade balance of creative goods and services)**	8

C. INTELLECTUAL PROPERTY AND INNOVATION	**ICT PATENT APPLICATION**	**42 PATENT APPLICATIONS TO THE EUROPEAN PATENT OFFICE** ***SDG_09_40 EUROSTAT***	**7**	**7**

C. INTELLECTUAL PROPERTY AND INNOVATION		**44 COPYRIGHT LAWS AND REGULATIONS (COPYRIGHT COMPLIANCE RATE; NR OF CPOYRIGHT REGISTRATIONS..)**	**8**

MODULE 3. CULTURAL VIBRANCY (10 indicators)

3. CULTURAL VIBRANCY				
DIMENSION	**SUB-DIMENSION**	**INDICATOR/SOURCE**	**AVERAGE SCORE OBTAINED**	**NEW ASSESSMENT**
A. CULTURAL VENUES AND FACILITIES	**MUSEUMS**	**47 NUMBER OF MUSEUMS** ***EGMUS***	**7,4**	**7**
	THEATRES	**48 NUMBER OF THEATRES** ***URB_CTOUR EUROSTAT***	**7,**	**7**
	UNESCO CULTURAL SITES	**49 NUMBER OF WORLD HERITAGE CULTURAL SITES** ***UNESCO; WEF***	**7**	**7**

A. CULTURAL VENUES AND FACILITIES		**50 ART GALLERIES AND PERFOMING ARTS VENUES** (E.G. CONCERT HALLS); CULTURAL FESTIVALS	8
		52 CULTURAL AND CREATIVE HUBS SAFE SPACES FOR CULTURAL DIALOGUE, CO-WORKING SPACES, IMPACT HUBS ETC.	8

B. CULTURAL PARTICIPATION AND ATTRACTIVENESS	**CULTURAL EXPENDITURE**	55 AVERAGE ANNUAL CULTURAL EXPENDITURE PER HOUSEHOLD *PRC_HICP_AIND EUROSTAT*	**8,1**	**8**
	CULTURAL ACTIVITIES ATTENDANCE	56 PERCENTAGE OF PERSONS PARTICIPATING IN CULTURAL ACTIVITIES *ILC_SCP03 EUROSTAT*	**8,5**	**9**
	SATISFACTION WITH CULTURAL FACILITIES	57 PERCENTAGE OF THE POPULATION THAT IS VERY SATISFIED WITH CULTURAL FACILITIES *URB_PERCEP EUROSTAT*	**8**	**8**
	CULTURAL VALUES	58 DEGREE OF PERSONAL IMPORTANCE OF CULTURE *EGMUS QA3*	**8,5**	**8**

B. CULTURAL PARTICIPATION AND ATTRACTIVENESS		59 CULTURAL PARTICIPATION BY DEGREE OF URBANIZATION *EUROSTAT*	8

[1] **Indicators excluded from the index:**
3 higher education graduates in ICT
10 foreign born population
11 mobile graduates from abroad
12 foreign tertiary education graduates
13 foreign doctorate students as a % of all doctorate students
14 employment rate of foreigners
15 purchasing power parities, price level indices and real expenditures
16 crime, violence or vandalism in the area
17 health care expenditure as a share of GDP
18 experienced well -being score in happy planet index
19 household income
20 employment rate
21 number of years of life expectancy
22 percentage of the young population from 5 to 34 years of total population
34 passenger flights
35 accessibility by air
36 accessibility by road
37 accessibility by rail
44 gross value added at basic prices
46 community design applications
49 number of cinema seats
51 number of visitors per museum
54 tourist overnight stays

2 Indicators excluded from the index in 2nd round:
1 number of higher education institutions pc
7 hard sciences
8 measures on the creative achievements of artists and others
9 provision of arts and culture in the curriculum
18 voice and accountability
22 rule of law
23 control of corruption
27 status of the artists/regulation
28 signatory of the 2005 un convention on the protection and promotion of the diversity of cultural expressions
29 existence of preferential treatment for artists and cultural goods and services
36 % of persons with creative qualifications regardless of whether they are employed
38 multidisciplinary third spaces co-working hubs, incubators, innovation hubs
43 regulation adoption of WIPO regulations (WIPO treaty ratification)
45 provision of dedicated CI finance schemes and investment/investor readiness
46 existence of R&D programs in creative technology and in role of CCIs for sustainable development
51 night time economy
53 festivals scale, diversity and frequency of independent festivals and events
54 number of electronic arts practitioners
60 cultural participation by country of birth
61 virtual event participation
62 number of unique visitors to cultural websites

Appendix 5. Comparative analysis of creative potentials across economies

Country	Creativity composite index			Enabling environment			Creative base			Cultural vibrancy		
	Average	St Dev	Ranking	Average	St Dev	Ranking	Average	St Dev	Ranking	Average	St Dev	Ranking
Germany	2,578535	0,028383	1	1,133171	0,021745	3	1,243056	0,023529	1	0,202308	0,026528	22
Luxembourgh	2,403534	0,013791	2	1,189425	0,014261	2	1,005519	0,000700	2	0,208590	0,024970	18
France	2,037485	0,055722	3	0,939383	0,019289	6	0,826128	0,053334	4	0,271974	0,036075	6
Denmark	1,997791	0,033949	4	1,239884	0,021039	1	0,510135	0,025037	7	0,247772	0,019984	8
Sweden	1,933324	0,023691	5	1,034048	0,036414	4	0,669630	0,033823	6	0,229646	0,008898	11
Netherlands	1,776205	0,065295	6	0,707568	0,025122	10	0,859335	0,057555	3	0,209302	0,011072	17
Italy	1,641562	0,064478	7	0,621983	0,017377	12	0,707568	0,034489	5	0,312011	0,044312	3
Finland	1,598055	0,043532	8	0,924459	0,023408	7	0,453863	0,030472	8	0,219732	0,007967	15
Belgium	1,533395	0,029815	9	0,956366	0,017638	5	0,371962	0,028862	10	0,205067	0,031029	21
Austria	1,499583	0,044063	10	0,910996	0,015521	8	0,421023	0,033530	9	0,167564	0,014341	28
Ireland	1,336511	0,030576	11	0,898410	0,016572	9	0,238874	0,035271	14	0,199227	0,019449	24
Spain	1,245907	0,024946	12	0,652157	0,034224	11	0,371694	0,022314	11	0,222056	0,019162	14
Great Britain	1,146260	0,026747	13	0,578400	0,016069	13	0,341641	0,016380	12	0,226218	0,014093	13
Malta	0,937848	0,023347	14	0,490575	0,013873	15	0,146520	0,016983	17	0,300753	0,015592	4
Cyprus	0,906478	0,023572	15	0,454816	0,020345	16	0,069928	0,010112	23	0,381734	0,019887	1
Slovenia	0,840486	0,034619	16	0,500981	0,013056	14	0,102514	0,010802	20	0,236991	0,030707	10
Poland	0,840069	0,057147	17	0,310543	0,018396	20	0,328835	0,038737	13	0,200691	0,003598	23
Estonia	0,733055	0,040078	18	0,349151	0,035554	18	0,057308	0,003401	24	0,326596	0,000000	2
Czechia	0,731670	0,047255	19	0,335541	0,026147	19	0,167279	0,016823	16	0,228849	0,024017	12
Portugal	0,726178	0,020405	20	0,376887	0,005909	17	0,109943	0,011686	19	0,239348	0,026488	9
Hungary	0,624489	0,243323	21	0,236334	0,006524	25	0,174770	0,238240	15	0,213385	0,021319	16
Greece	0,623974	0,055655	22	0,250227	0,022887	23	0,073896	0,009654	22	0,299851	0,023667	5
Lithuania	0,552511	0,051495	23	0,243402	0,022845	24	0,049479	0,006950	26	0,259630	0,031186	7
Latvia	0,519452	0,032525	24	0,281367	0,021942	21	0,031239	0,004685	27	0,206846	0,023357	19
Croatia	0,478012	0,024319	25	0,262020	0,024500	22	0,023706	0,001908	28	0,192286	0,013929	26
Slovakia	0,466136	0,021553	26	0,235218	0,010999	26	0,057005	0,007373	25	0,173913	0,008123	27
Romania	0,435951	0,015571	27	0,094349	0,015193	27	0,135896	0,008432	18	0,205706	0,026579	20
Bulgaria	0,302937	0,009149	28	0,062344	0,008519	28	0,094337	0,154068	21	0,194516	0,008981	25

Empirical analysis

Appendix 6. The role of the creative sector in tourism development

Appendix 6.1.
Hausman specification test for the first hypothesis

Hausman test
data: TTTGDP ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX
chisq = 75.021, df = 6, p-value = 3..8e-14
alternative hypothesis: one model is inconsistent

Results of the Panel Model Analysis – Fixed Effects Model

Dependent variable	
Travel and Tourism Total Contribution to GDP (TTTGDP)	
GCI	-0.017
	(0.241)
TTCI	-0.439
	(0.320)
HDI	0.00005
	(0.0001)
EXP	0.064
	(0.694)
DTS	**-1.850*** **
	(0.281)
C_index	**-4.829***
	(7.854)
Observations	252
R2	**0.234**
Adjusted R2	0.118
F Statistic	11.072*** (df=6; 218)

Note:	*p<0.1; **p<0.05; ***p<0.01

Appendix 6.2. Separate Testing for Groups of More Developed and Less Developed EU Countries Based on the Creativity Index

Hausman Specification Test

Hausman test – fe_group1, re_group1
data: TTTGDP ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX
chisq = 62.61, df = 6, p-value = 1.325e-11
alternative hypothesis: one model is inconsistent

Hausman test – fe_group2, re_group2
data: TTTGDP ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX
chisq = 7.5418, df = 6, p-value = 0.2736
alternative hypothesis: one model is inconsistent

Panel Analysis: Comparison of Fixed Effects Model (Group 1) and Random Effects Model (Group 2)

	Fixed Effects (Group 1)	Random Effects (Group 2)
GCI	-0.013 (0.348)	0.032 (0.151)
HDI	0.0001 (0.0003)	0.00004 (0.0001)
TTCI	-0.484 (0.497)	**-0.279**** **(0.139)**
EXP	-0.981 (0.887)	-0.256 (0.505)
DTS	**-1.888***** **(0.334)**	0.228 (0.204)
C_index	**-7.242** **(12.817)**	**-5.194** **(4.498)**
Constant		22.907** (10.330)
Num.Obs.	126	126

R2	**0.347**	**0.216**
Adjusted R2	0.230	0.177
F Statistics	9.373*** (dr = 6; 106)	32.801***
Note		*p < 0.1; ** p < 0.05; *** p < 0.01

Appendix 6.3. Analysis for Mediterranean and Non-Mediterranean Countries

Hausman Specification Test

Hausman test –mediteran = 0
data: TTTGDP ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX
chisq = 53.088, df = 6, p-value = 1.127e-09
alternative hypothesis: one model is inconsistent

Hausman test –mediteran = 1
data: TTTGDP ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX
chisq = 19.557, df = 6, p-value = 0.003319
alternative hypothesis: one model is inconsistent

Panel Analysis: Comparison of Fixed Effects Model (Non-Mediterranean Countries = 0) and Fixed Effects Model (Mediterranean Countries = 1)

	Fixed Effects (mediteran = 0)	Fixed Effects (mediteran = 1)
GCI	-0.051	0.107
	(0.400)	(0.294)
HDI	0.00002	0.0001
	(0.0003)	(0.0001)
TTCI	-0.162	**-0.863****
	(0.466)	**(0.419)**
EXP	-0.132	0.072
	(1.125)	(0.826)
DTS	**-1.791*****	**-2.038*****
	(0.368)	**(0.510**)
C_index	1.079	**-22.050***
	(10.127)	**(12.951)**
Observations	171	81
R2	0.236	0.268
Adjusted R2	0.111	0.113

F Statistic	7.524*** (df = 6; 146)	4.031*** (df = 6; 66)
Note		*p < 0.1; ** p < 0.05; *** p < 0.01

Appendix 7.

Dynamic Analysis: Generalized Method of Moments (GMM)

Oneway (individual) effect two-steps model Difference GMM					
Balanced Panel: n = 28, T=9, N=252					
Number of Observations used: 196					
Residuals:					
Min	1st Qu.	Median	Mean	3rd Qu.	Max.
-195.0842	-2.3791	0.2336	1.0184	3.2314	111.8342
Coefficients:					
	Estimate	Std. Error		z-value	Pr(> | z|)
LAG(TTTGDP, 1)	-0.29269171	0.06625251		-4.4178	9.970e-06***
GCI	-0.11843398	0.18180169		-0.6514	0.5148
HDI	0.00017170	0.00017442		0.9844	0.3249
TTCI	-0.11681460	0.46466177		-0.2514	0.8015
EXP	0.16799353	1.93300896		0.0869	0.9307
DTS	-3.42469581	0.58129579		-5.8915	3.827e-09***
C_index	-5.85628434	4.93474899		-1.1867	0.2353
Signif.codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' ' 1

Sargan test: chisq(12) = 21.00576 (p-value = 0.050296)
Autocorrelation test (1): normal = - 1.611212 (p-value = 0.10713)
Autocorrelation test (2): normal = - 1.763774 (p-value = 0.07777)
Wald test for coefficients: chisq(7) = 346.1904 (p-value = <2.22e-16)

Appendix 8. Robustness of Results and Additional Analysis
Appendix 8.1

Hausman Specification Test

Hausman test
data: NIGHTS ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX + TTTGDP
chisq = 7.0953, df = 7, p-value = 0.419
alternative hypothesis: one model is inconsistent

Panel Analysis: Comparison of Fixed Effects Model and Random Effects Model

Dependent variable		
Nights		
	Fixed Effects	**Random Effects**
GCI	-52.160***	**-27.057****
	(12.133)	**(13.683)**
HDI	0.029***	**0.036*****
	(0.007)	**(0.009)**
TTCI	33.251**	4.949
	(16.139)	(18.006)
EXP	99.004***	47.408
	(34.892)	(38.290)
DTS	-0.919	-14.855
	(15.466)	(12.832)
C_index	465.841	**127.705**
	(395.238)	**(443.722)**
TTTGDP	6.855**	3.845
	(3.405)	(3.772)
Constant		6,994.691***
		(1,113.377)
Observations	262	252
R2	0.278	**0.132**
Adjusted R2	0.165	0.108
F Statistics	11.925*** (df=7; 217)	37.248***
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 8.2. Separate Testing for Groups of More Developed and Less Developed EU Countries According to the Creativity Index

Hausman Specification Test

Hausman test – group1
data: NIGHTS ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX + TTTGDP
chisq = 77.677, df = 7, p-value = 4.095e-14
alternative hypothesis: one model is inconsistent

Hausman test –group2
data: NIGHTS ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX + TTTGDP
chisq = 0.54909, df = 7, p-value = 0.9992
alternative hypothesis: one model is inconsistent: one model is inconsistent

Panel Analysis: Comparison of Fixed Effects Model (Group 1) and Random Effects Model (Group 2)

Dependent variable		
Nights		
	Fixed Effects (Group 1)	Random Effects (Group 2)
GCI	**-79.573***** **(16.155)**	-17.870 (15.489)
HDI	**0.083***** **(0.013)**	**0.013*** **(0.008)**
TTCI	**42.394*** **(23.206)**	21.795 (18.412)
EXP	16.723 (41.443)	**466.992***** **(89.757)**
DTS	-4.304 (17.714)	**-164.235***** **(41.225)**
C_index	146.753 (596.607)	**714.034*** **(418.104)**
TTTGDP	1.988 (4.514)	7.775 (4.747)
Constant		3,199.405** (1,287.536)

Observations	126	126
R2	0.441	**0.354**
Adjusted R2	0.335	0.315
F Statistics	11.843*** (df=7; 105)	64.586***
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 8.3. Analysis of Mediterranean and Non-Mediterranean Countries

Hausman Specification Test

Hausman test –mediteran = 0
data: NIGHTS ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX + TTTGDP
chisq = 24.769, df = 7, p-value = 0.0008336
alternative hypothesis: one model is inconsistent

Hausman test –mediteran = 1
data: NIGHTS ~ GCI + HDI + TTCI + EXP + DTS + C_INDEX + TTTGDP
chisq = 7.2219, df = 7, p-value = 0.4061
alternative hypothesis: one model is inconsistent

Panel Analysis: Comparison of Fixed Effects Model (Non-Mediterranean Countries = 0) and Fixed Effects Model (Mediterranean Countries = 1)

Dependent variable		
Nights		
	Fixed Effects (mediteran =0)	Random Effects (mediteran = 1)
GCI	**-28.574*** **	-80.172***
	(10.588)	(25.897)
HDI	-0.002	**0.038*** **
	(0.0008)	**(0.013)**
TTCI	**53.447*** **	30.013
	(12.318)	(38.050)
EXP	**181.250*** **	20.260
	(29.760)	(71.691)
DTS	-11.474	**-53.521*** **
	(10.498)	**(29.565)**
C_index	307.585	71.378
	(267.817)	(1,107.362)
TTTGDP	7.195***	1.722
	(2.189)	(10.051)
Constant		15,865.020***
		(2,532.157)

Observations	126		126	
R2	0.441		0.354	
Adjusted R2	0.335		0.315	
F Statistics		11.843*** (df=7; 105)		64.586***

Note: *p<0.1; **p<0.05; ***p<0.01