

ENHANCING SUSTAINABLE TOURISM THROUGH CROSS-BORDER COOPERATION: INSIGHTS FROM INTERREG PROJECTS CROATIA AND NEIGHBOURING COUNTRIES (2014-2020)

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ABSTRACT

Purpose: The purpose of this article is to assess the alignment of tourism stakeholders and institutions in Croatia with the strategic priorities set out in key tourism development strategies. Specifically, this evaluation focuses on identifying the extent to which cross-border cooperation projects funded by the Interreg programme between 2014 and 2020 have led to innovations in sustainable tourism products and practices. Additionally, the study aims to determine the primary country with which Croatia collaborates for these sustainable tourism initiatives.

Methodology: The research employs quantitative methods to analyse data collected from the First Annual Report on Innovative Actions in Sustainable Tourism within the EU Strategy for the Adriatic-Ionian Region. This report serves as the primary source of information, detailing projects that emphasize innovation in sustainable tourism, particularly those involving Croatian partners as leaders or team members.

Results: A total of 50 sustainable tourism-related projects were identified within the Interreg program during the specified period. Notably, the majority of these projects were conducted in collaboration with Slovenia. Of the total projects, 54% resulted in innovations pertaining to sustainable tourism, with 41% focused on developing new tourism products and the remaining 59% addressing various innovations, including accommodation and new technologies.

Conclusion: The findings indicate that cross-border cooperation, particularly between Croatia and Slovenia, has significantly contributed to innovations in sustainable tourism. The study highlights the importance of such collaborations in promoting sustainable practices and regional integration. Future research should explore broader implications and identify potential barriers to enhancing the effectiveness of cross-border tourism initiatives.

KEY WORDS

cross-border tourism, sustainable tourism, Interreg projects, Croatia

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INTRODUCTION

The European Union has acknowledged the critical role of tourism in advancing cross-border cooperation across its regions. According to the Association of European Border Regions [1] cross-border cooperation in Europe is guided by three key objectives. First, the concept of a “New Quality of Borders” seeks to transform borders into areas that foster understanding and tolerance while maintaining cultural diversity. This involves reducing barriers and fostering cooperation in sectors such as the economy, social affairs, health, and education, thereby contributing to European integration. Second, “Cross-Border Partnership and Sustainable Cooperation” emphasises the importance of a bottom-up approach, where partnerships among local, regional, national, and European actors help address regional challenges and promote sustainable development. Lastly, “Territorial Integration and Political Will” focuses on enhancing the geographical integration of cross-border regions by eliminating obstacles and diminishing the relevance of borders. This objective relies on the political commitment of national and regional authorities to create equal living conditions and improve mobility across Europe.

Cross-border tourism, characterised by its complex set of benefits and challenges, holds a central role in contemporary tourism systems, enabling diverse economic, cultural, and social interactions across international boundaries. This sector plays a critical part in the global tourism economy by driving economic growth, facilitating intercultural exchange, and promoting regional cooperation. However, effective management is essential to mitigate its environmental impact, protect local cultural identities, and address the infrastructure pressures it creates. Cross-border cooperation and partnerships are recognised as fundamental for sustainable tourism development within the European Union [2]. EU policies consistently emphasise the need for tourism regions that extend beyond national borders, highlighting their importance in promoting regional integration and sustainable economic and social development. Tourism, as an economic sector, has the capacity to enhance territorial cohesion, while sustainable tourism, in particular, plays a crucial role in fostering regional convergence by improving competitiveness and encouraging territorial cooperation [3; p.100]. The European Committee of the Regions, in its Opinion “Towards More Sustainable Tourism for EU Cities and Regions”, underscores the need for tourism that respects Europe’s historical, cultural, and natural heritage. It calls for adequate funding and a long-term EU tourism policy focused on sustainability, quality, environmental protection, and climate change mitigation [4]. Sustainable cross-border tourism is pivotal to fostering regional benefits while ensuring long-term positive impacts on the environment, economies, and cultures. The vision of sustainable cross-border tourism stresses innovation, improved service quality, and productivity growth [5]. Stare and Križaj [6] define service innovation in tourism as the creation of new or improved services through interactions between providers and consumers. These innovations, which may range from novel concepts to technological advancements, are designed to enhance tourist experiences and productivity while responding to changing conditions. In the context of cross-border tourism, such innovations not only promote sustainability and environmental protection but also generate economic advantages and foster cultural cohesion across different regions. For effective promotion of sustainable tourism, it is crucial to implement a variety of innovations that extend beyond mere product innovation [7]. Hjalager [8] categorises several relevant types of innovations in this field: product innovations include the creation of nature-based tourism offerings; process innovations incorporate the use of sophisticated information management systems to improve cost efficiency; management innovations focus on enhancing personnel management strategies and implementing environmental incentive programmes; and institutional innovations may involve measures designed to mitigate environmental risks or manage external environmental impacts. Sustainable tourism products are specifically developed to align with local environments, communities, and cultures, ensuring that they make positive contributions to tourism development while minimising potential risks [9].

According to Prokkola [10], academic interest in cross-border tourism development within the EU's structural funds programmes grew in the early 2000s, attracting researchers from fields such as tourism studies, border studies, and policy. These scholars have explored the links between European integration, border changes, and tourism development. EU structural funds have promoted cross-border regional tourism over national agendas, with the Interreg programme, part of European Territorial Cooperation, being the most studied. Interreg, funded by the European Regional Development Fund, addresses shared challenges in areas like environment, health, research, transport, and tourism through international cooperation [11].

The Republic of Croatia, through its Tourism Development Strategy until 2020 [32], as well as the new Sustainable Tourism Development Strategy until 2030 [12], and the recently adopted Tourism Act [13], has committed to sustainable tourism. The Sustainable Tourism Development Strategy until 2030 defines the vision for the Republic of Croatia: "By 2030, Croatia will be a competitive, innovative, and safe country with a distinctive identity and culture, preserved resources, high quality of life, and equal opportunities for all". One of the four strategic goals for the development of sustainable tourism in Croatia is to achieve a competitive and innovative tourism sector [12].

This study was conducted to evaluate whether tourism stakeholders in Croatia, along with related entities, have aligned their initiated projects with cross-border countries to the strategic priorities specified in essential tourism development strategies, which serve as foundational guidelines for shaping tourism initiatives. The primary focus is on analysing how these projects integrate innovations in sustainable tourism. Consequently, the authors investigated Interreg sustainable tourism projects that involve Croatian partners and their collaborative efforts with neighbouring countries, either as lead partners or as members of project teams, to gain a deeper understanding of their alignment with these strategic priorities and anticipated outcomes.

The aim of the article is twofold:

- 1) To analyse how many cross-border cooperation projects funded by the Interreg IPA programme have resulted in: (a) innovations in cross-border sustainable tourism products or (b) other types of sustainable innovations in the tourism offer (accommodation, destination activities, implementation of new technologies).
- 2) With which country does Croatia collaborate the most in implementing cross-border projects related to sustainable tourism?

The analysis covers the period from 2014 to 2020. The focus is placed on the: Interreg Croatia-Slovenia, Interreg Croatia-Bosnia and Herzegovina – Montenegro, Interreg Croatia-Italy, and Interreg Croatia-Serbia.

The article is organised as follows. The next section presents the literature review, followed by the empirical section of the article. The discussion section integrates the findings related to project numbers, innovation outcomes, and the impact of cross-border cooperation on sustainable tourism development within the Interreg framework. It connects these insights to broader implications for regional development and tourism policy. In the conclusion section, the article's findings and limitations are discussed.

THEORETICAL BACKGROUND

Cross-border tourism is increasingly recognised as a vital mechanism for developing border regions, as noted by Vodeb [14]. Defined as the movement of individuals across international boundaries to engage with the cultural, historical, and natural attractions of neighbouring or more distant nations, cross-border tourism encompasses activities ranging from day trips to extended stays [15-17]. This form of tourism significantly facilitates economic, cultural, and social exchanges among countries, serving as a strategic policy tool for enhancing regional

identities and fostering interactions across borders [18, 19]. Key enablers of cross-border tourism include geographical proximity, political agreements, travel ease, and shared cultural or historical contexts.

The volume of publications on cross-border tourism has witnessed a steady increase over the past five years, with a notable decline in 2012 followed by resurgence, although comprehensive literature analysing specific trends remains sparse. The main topics of focus have included collaboration, shopping, and medical tourism as essential components of this field [19].

Research by Mikhaylova [20] identifies several influential factors in tourism development within border regions: a longstanding history of amicable relations, a favourable political climate, effective public initiatives, the establishment of tourism infrastructure, the presence of unique attractions such as ski resorts, and economic benefits stemming from price disparities. Additionally, ease of travel, characterised by well-developed transport infrastructure and minimal visa restrictions, plays a crucial role in enhancing tourism flow. Timothy [18, 21] further delineates specific determinants impacting tourism in border regions, including economic, social, and cultural disparities among tourist attractions, the adequacy of tourist knowledge regarding borderland amenities, the availability of compelling attractions, and sufficient border permeability. Administrative and political factors also significantly influence cross-border tourism, as highlighted by Dunets et al. [22]. Legislative measures such as customs regulations, passport controls, and monetary policies enacted by states can either facilitate or hinder tourism development in border areas.

Effective management of cross-border tourism necessitates the adaptation of products and services to the distinct characteristics of border regions. This approach enables stakeholders to address local challenges and foster mutual benefits for neighbouring countries, thereby promoting agility in responding to dynamic economic, political, ecological, and cultural shifts [23]. According to Gardzińska et al. [24] a viable cross-border tourism product requires the ability of tourists to cross borders seamlessly, integrating tourism values, infrastructure, and services across the region. The development of such products entails a thorough assessment of regional tourism potential, identification of key assets, analysis of existing infrastructure and legal frameworks, and selection of appropriate tourism offerings. This complex process mandates collaboration among various public and private stakeholders. Research focused on Slovenia and Croatia indicates that successful tourism destinations in border areas must prioritise the preservation and promotion of their unique identities, ensuring alignment with tourism offerings [25]. Moreover, cross-border destinations often integrate their marketing strategies into broader regional development frameworks, sometimes establishing independent brands to enhance their market presence and leverage synergies across multiple locales. Nonetheless, standardised marketing practices remain underutilised, even as the benefits of collaborative efforts and competitive integration are recognised [26]. Vodeb's [14] study, which examined tourism supply providers in the Slovene-Croatian border regions, underscores that strategic planning and management of cross-border initiatives can significantly enhance regional competitiveness. The integrated management of cross-border tourism necessitates coordinated strategies between neighbouring countries to enhance regional competitiveness [27].

A primary advantage of cross-border tourism lies in its capacity to highlight the importance of international cooperation through cross-border partnerships [28]. This cooperation is a component of broader international collaboration efforts encompassing interregional, transnational, and trans-frontier initiatives. An illustrative example of successful cross-border tourism is the Eurostar train service connecting London and Paris, which has transformed travel between these two cities, allowing tourists to enjoy both destinations in a short timeframe. The convenience offered by Eurostar has markedly increased tourism, providing economic benefits for both nations. Vodeb and Nemec Rudež [29] found that destinations recognised as close

substitutes could enhance their competitive positions through cooperation based on strategic, cost-oriented, and learning-oriented motives. Such collaboration fosters overall competitiveness despite low levels of intra-destination cooperation.

Border regions often possess shared historical and cultural heritage, as well as attractive natural landscapes that enhance their appeal as tourist destinations. For example, the Republic of Moldova and Romania share heritage and scenic beauty, creating a natural synergy for tourism development. Effective cross-border cooperation also enhances sustainability in these regions, promoting inclusivity in tourism. Research by Wani et al. [30] illustrates that cross-border tourism and interpersonal interactions significantly strengthen regional cooperation between India and Bangladesh. Additionally, cross-border collaborations are particularly beneficial for areas with historical political tensions, as they help forge economic, social, and political ties that contribute to peace. This phenomenon is demonstrated by the study conducted by Kozak and Buhalis [31], which examined destination marketing collaborations between Turkey and Greece, demonstrating how shared histories and attractions can bolster competitiveness and mutual benefits.

Furthermore, major cities act as crucial hubs for attracting tourists from adjacent border regions, providing positive externalities for rural areas situated along cross-border tourism routes. Cross-border tourism can thus contribute positively to the economic and social development of rural areas by leveraging their strategic locations within tourism networks [9]. The enhancement of transport infrastructure is often a critical component of cross-border tourism development, typically supported by external public funding [33]. Such investments facilitate greater physical connectivity and promote knowledge sharing among economic agents across borders.

Despite the numerous benefits associated with cross-border tourism, challenges and disadvantages persist. One of the most pressing concerns is the environmental impact, as increased tourist traffic can lead to the overexploitation of natural resources, pollution, and ecosystem degradation. The Great Wall of China serves as a notable example, where high tourist volumes contribute to erosion and damage. Zhao et al. [34] incorporate data from FAO and UNWTO to analyse how cross-border tourists' dietary choices impact national food supplies, estimating a reduction of 620 Mt CO₂e in global food system emissions between 2001 and 2019. Projections suggest potential annual reductions of 96 Mt CO₂e by 2100, indicating that economic development and dietary shifts can play a role in mitigating tourism-related emissions. In the Western Balkans, the border triangle of Kosovo, Montenegro, and Albania has experienced a surge in mountain tourism, posing significant challenges to environmental conservation and sustainable practices. Research conducted by Doli et al. [35] on visitors' willingness to pay for service improvements and sustainable tourism practices indicates that 80% of visitors are amenable to contributing financially, typically between €1 to €4, although willingness tends to decline with age. Interestingly, visitors from Kosovo and Albania exhibit a higher willingness to pay than those from Montenegro, while individuals with lower educational attainment display less inclination to invest.

Infrastructural shortcomings, capacity issues, and organisational fragmentation represent additional challenges facing cross-border tourism initiatives. Drapela [36] notes that despite the Czech Republic's membership in the Schengen Zone since 2007, lingering border-related challenges, such as disconnected public transport and inadequate infrastructure, contribute to unsustainable tourism in border regions. Such issues are exacerbated by significant day visitor traffic from private vehicles. Transition failures, fragmentation, and institutional challenges complicate progress, as evidenced in various border regions, including the Finnish-Swedish Tornio River Valley and the Zambia-Zimbabwe border at Victoria Falls, as highlighted by Makkonen and Williams [37]. A lack of collaborative efforts in cross-border tourism can lead to heightened competition among neighbouring regions, redundant marketing initiatives, and stagnation in regional innovation due to insufficient knowledge sharing [38-40].

Disparities in development levels between countries in border regions create further obstacles for cooperative tourism initiatives, as illustrated by Thuy's [41] investigation of cross-border tourism development between Vietnam and China. The Altai-Sayan Mountain region, spanning the borders of four countries, also experiences challenges due to differences in political, economic, infrastructural, and socio-demographic factors [11].

Dunets et al. [22] categorise the impacts of cross-border tourism cooperation across five domains: economic, cultural, social, ecological, and managerial. They identify both positive and negative influences within each area. Positive effects encompass infrastructural development, income generation, cultural development, improved living conditions, and the conservation of natural areas. Conversely, negative impacts may involve currency leakage, cultural commodification, increased crime rates, excessive environmental burdens, and the complexities of planning and regulatory frameworks.

In the next section the empirical research results are presented.

EMPIRICAL SECTION

METHODOLOGY

The findings presented in this article stem from comprehensive data analyses, utilising quantitative research methods. Data analysis involved gathering, processing, and interpreting information on cross-border cooperation activities funded by Interreg projects from 2014 to 2020, in which Croatian partners were involved either as lead partners or team members. The primary data source for this analysis was the First Annual Report on Innovative Actions in Sustainable Tourism within the EU Strategy for the Adriatic-Ionian Region (EUSAIR), prepared by the Institute for Development and International Relations and the Ministry of Tourism and Sports of the Republic of Croatia in 2021 [42]. This report is the first in a series focusing on innovation in sustainable tourism within the Adriatic-Ionian region. It includes an overview of projects funded by European funds through various calls for proposals on sustainable tourism, all of which incorporate an innovation aspect.

RESULTS

In this section the author present the results of the data analyses.

The presentation of the analysis results of Interreg IPA projects follows.

The total number of sustainable tourism-related projects within the Interreg programme from 2014 to 2020 was 50. The European Territorial Cooperation budget for 2014-2020 was set at €8 948 billion. Out of the total number of projects, the majority were realised through cross-border cooperation between Croatia and Slovenia. Following these projects are realised through cross-border cooperation with Italy, then with Serbia and Bosnia and Herzegovina. This information is shown in Figure 1.

From the perspective of introducing innovations related to sustainable tourism, out of the total number of projects, 27 or 54% resulted in innovations in the field of sustainable tourism. Of the total innovations in sustainable tourism, 11 pertained to the development of tourism products, comprising 41%, while 16 were related to other types of innovations such as accommodation, destination activities, and the implementation of new technologies. This information is depicted in Figure 2.

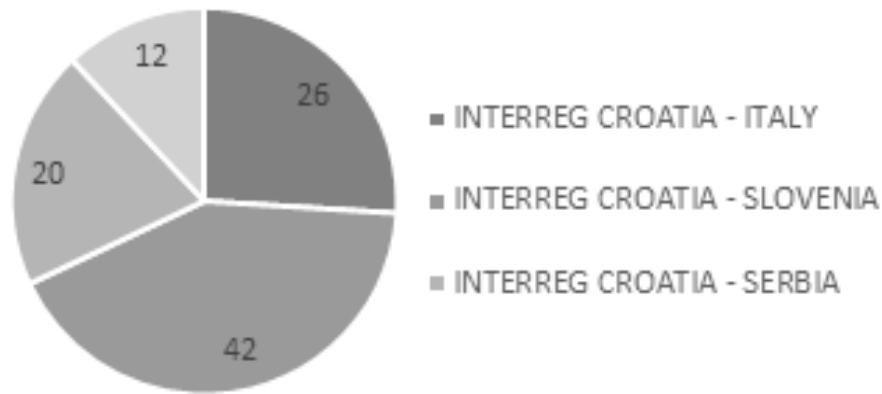


Figure 1. INTERREG IPA cross-border projects related to sustainable tourism implemented between Croatia and its neighbouring countries between 2014 and 2020. Source: author’s analyses based on [42].

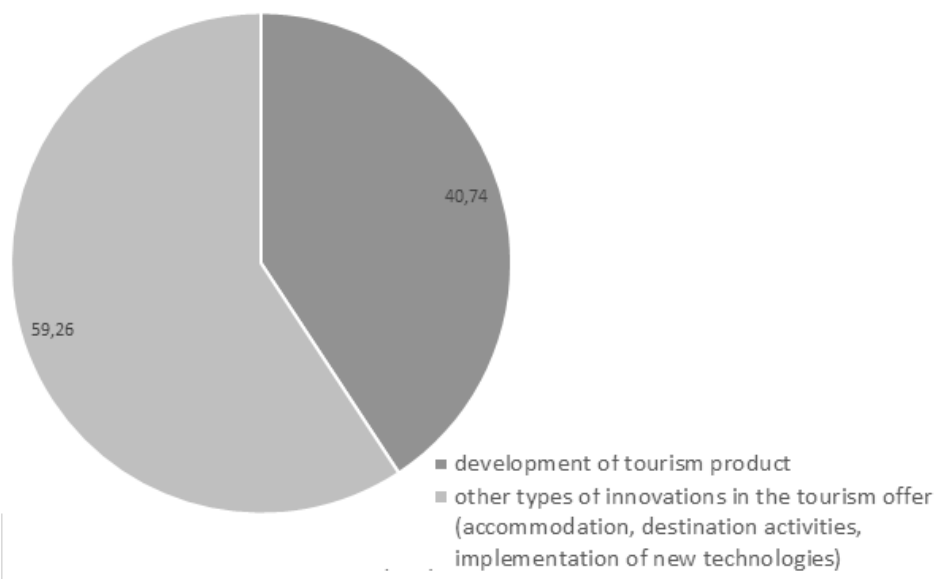


Figure 2. Different types of sustainable tourism innovation developed as a result of the cross-border Interreg IPA project between Croatia and its partner countries (Italy, Slovenia, Serbia, Bosnia and Herzegovina, and Montenegro) between 2014 and 2020. Source: author’s analyses based on the Institute for Development and International Relations and the Ministry of Tourism and Sports of the Republic of Croatia, 2021 [42]

The greatest number of innovations in sustainable tourism came from the cross-border cooperation between Croatian and Slovenian partners (59%). Following this, collaboration with Italian partners resulted in 7 projects (or 26%) that led to innovations in sustainable tourism. Cooperation with partners from Serbia, Bosnia and Herzegovina, and Montenegro each resulted in an equal number of projects (2 each) that developed innovations in sustainable tourism (implementation of new technology in tourism and development, innovations in accommodation and introduction of innovative tourism products). Here are several examples of innovations introduced to promote sustainable cross-border tourism. The innovative approach and digital content in historical fortifications aims to introduce new digital experiences to tourist sites in cross-border areas and further develop the untapped potential of historical fortified monuments. Another innovation in sustainable cross-border tourism involved improving accessibility to natural and cultural heritage destinations for people with disabilities through augmented reality, virtual and web applications, alongside small-scale infrastructure investments. In another project, partners developed innovative, integrated, and

thematic tourism products, including a web and mobile application, to enhance sustainable cross-border tourism by leveraging cultural, natural, and gastronomic heritage. The Riviera4Seasons2 project enhanced sustainable cross-border tourism (Croatia-Slovenia) by integrating regional heritage into new itineraries, promoting green tourism, and using cross-border collaboration to increase visitor numbers through innovative approaches, including joint portals, itineraries, events, and international promotion.

Partner countries from 13 nations collaborated in the transnational European cooperation programme for the Mediterranean region, the Interreg MED program 2014-2020. Among the 21 sustainable tourism projects under the Interreg MED program, only 6 incorporated some form of innovation (i.e., new technologies for visibility and promotion, innovations in destination activities, innovations in research and user engagement, innovations in accommodation, hospitality, transportation, informational content, and the application of new technologies). For instance, one project focused on innovations to alleviate pressures in destinations by redirecting tourists to other nearby activities/places and implemented an innovative mix of measures for the protection of natural heritage. Another project's innovation led to development of innovative technological solutions where people can explore the map and select services and facilities offered by "ConsumelessMed Companions." ConsumelessMed badge idea was developed for all those service providers who agreed to respect the rules of sustainable tourism service provision in the destination. Three projects were implemented in collaboration with Italian partners, two with Greek partners, and one with Montenegrin partners.

DISCUSSION

The findings from this study reveal significant insights into the role of cross-border cooperation in promoting sustainable tourism within the Interreg programme from 2014 to 2020. A total of 50 sustainable tourism-related projects were identified during this period, highlighting the program's impact in fostering collaboration across national boundaries.

These findings emphasize the pivotal role of cross-border cooperation facilitated by the Interreg IPA program in advancing sustainable tourism initiatives across Europe. By fostering collaboration and innovation, the program not only strengthens regional competitiveness but also enhances the overall visitor experience while safeguarding natural and cultural heritage.

The findings from the Interreg IPA program's sustainable tourism projects reveal several key insights that both align with and challenge aspects of the literature reviewed.

Innovations in Sustainable Tourism

The literature emphasises the importance of innovation in sustainable cross-border tourism to enhance environmental, economic, and social sustainability [8, 33]. This research corroborates this view, with 54% of the projects resulting in innovations across various aspects of sustainable tourism, including product development and new technologies. Specifically, the significant proportion of innovations stemming from Croatian-Slovenian cooperation (59%) aligns with Makkonen and Williams [33], who highlight the role of cross-border collaborations in fostering regional innovations. This finding supports the argument that robust cross-border partnerships are crucial for advancing sustainable tourism.

Geographical Concentrations and Innovation Types

The data shows that the majority of innovations came from the Croatian-Slovenian projects, followed by Italian collaborations. This geographical concentration reflects the literature's observation that certain regions are more successful in implementing innovative tourism

practices due to stronger institutional frameworks and collaborative networks [22]. This clearly illustrates the effectiveness of transnational partnerships in utilizing resources and recognising the rich cultural and natural heritage of cross-border regions. It also emphasises the recognition of similarities among these regions at the same time highlighting their unique identities and expertise in addressing common challenges and opportunities in sustainable tourism development. This is consistent with the results of the research conducted by Vodeb [25], Gardzińska et al. [24], Sjalverstava et al. [23] and Mikhaylova [20]. Otherwise, the success of project applications and their implementation would be questionable. However, it also suggests a potential limitation noted by Stoffelen et al. [40], who argue that local tourism projects do not always lead to equitable regional development. The focus on a few specific cross-border areas might exacerbate regional disparities rather than promoting broader regional integration.

Types of Innovations and Their Impact

The literature suggests that innovation in sustainable tourism should encompass a range of aspects, including product development, technological advancements, and management practices [8]. The findings that 41% of innovations were related to new tourism products, with the rest covering various areas such as accommodation and technologies, align well with this view. The examples of innovations, such as digital enhancements for historical sites and accessibility improvements, reflect the need for diverse approaches to sustainability highlighted in the literature. However, the limited number of innovations reported in the Interreg MED programme's Mediterranean projects (6 out of 21) contrasts with the broader spectrum of innovations discussed in the literature review, suggesting a disparity in innovation application across different programmes.

Addressing Barriers and Challenges

The barriers to effective cross-border tourism innovation identified in the literature [37] include structural, institutional, and transition failures. The research highlights the successful application of innovative approaches in cross-border contexts but also reveals a geographical concentration of these innovations. This suggests that while certain regions exhibit strong collaborative frameworks, others may face structural or institutional barriers that impede innovation. This finding supports the literature's critique of fragmented efforts and the need for a more strategic, inclusive approach to cross-border tourism development.

Strategic Recommendations and Future Directions

The literature advocates for strategic approaches to tourism product development and integrating sustainability principles from the outset [7]. The research supports this by showcasing projects that have successfully integrated sustainability into their designs, such as the Riviera4Seasons2 project. However, the relatively low number of innovative projects in the Interreg MED programme suggests a need for increased focus on strategic and holistic development approaches. Future research should explore why certain regions are more successful in innovation and how barriers can be addressed to facilitate more widespread adoption of sustainable tourism practices.

In the context of fostering cross-border sustainable tourism between Croatia and its neighbouring countries – Slovenia, Hungary, Serbia, Bosnia and Herzegovina, and Montenegro – several strategic approaches can be considered to ensure the development of tourism that is both sustainable and innovative.

1. *Regional Collaboration and Partnerships:* A key factor in promoting cross-border sustainable tourism is the establishment of strong regional collaborations and partnerships. Croatia, together with its neighbouring countries, should pursue joint initiatives and projects

that transcend national borders. Developing cross-border tourist routes or cultural heritage trails, such as a regional network of cycling paths or joint promotional campaigns, can enhance the attractiveness of the region as a cohesive tourism destination. A prime example of such collaboration is the “Iron Curtain Trail”, which connects various countries through a shared historical narrative, and serves as a model that can be replicated. Moreover, creating shared platforms for the exchange of knowledge and best practices is crucial. These platforms could facilitate joint research initiatives, shared marketing strategies, and coordinated conservation efforts. By working together, these countries can pool their resources to achieve greater impact and ensure that tourism development benefits all participating nations.

2. Leveraging Common Cultural and Natural Heritage: Croatia and its neighbours share a rich tapestry of cultural and natural heritage that can serve as the foundation for sustainable tourism. Promoting transboundary natural parks is one effective strategy. For instance, the UNESCO Mura-Drava-Danube Biosphere Reserve, spanning Croatia, Hungary, and Serbia, showcases how natural heritage can be jointly managed and promoted. By focusing on such initiatives, the region can attract eco-tourists who are interested in experiencing nature conservation efforts firsthand. Cultural exchange programmes are another avenue for fostering cross-border tourism. These programs can highlight the shared history and traditions of the region, fostering a sense of common identity among tourists. This is particularly important in border areas with closely intertwined cultural histories, where such initiatives can strengthen both regional ties and tourism appeal.

3. Innovations in Sustainable Tourism: Innovation plays a pivotal role in driving sustainable tourism across borders. The adoption of digital technologies, such as mobile apps that provide real-time information on eco-friendly accommodations, sustainable travel options, and cultural experiences, can enhance the tourist experience while promoting sustainability. Virtual reality tours that showcase natural and cultural heritage sites across borders offer another innovative approach, allowing potential tourists to explore the region virtually before visiting in person. Furthermore, the development of region-wide green certifications for tourism businesses that meet specific sustainability criteria can encourage innovation within the industry. By striving to meet these standards, businesses can differentiate themselves as leaders in eco-friendly practices, attracting environmentally conscious tourists.

4. Infrastructure Development and Sustainable Transport: Investing in sustainable infrastructure is essential for supporting cross-border tourism while minimising its environmental impact. Developing sustainable transport networks that connect tourist destinations across borders is a priority. This could involve the expansion of eco-friendly transport options such as electric buses, extensive cycling routes, and efficient rail systems. For instance, connecting the Adriatic coast with inland destinations through sustainable transport can enhance cross-border tourism while ensuring minimal environmental impact. In addition to transport, infrastructure that supports local communities is crucial. Small-scale, community-owned accommodations or local markets that cater to tourists can ensure that the economic benefits of tourism are more widely distributed, thereby supporting local livelihoods and fostering community resilience.

5. Community Engagement and Capacity Building: For cross-border sustainable tourism to be successful, it is vital to engage local communities in the planning and development process. Empowering local communities through capacity-building programmes can equip them with the skills needed to participate in and benefit from sustainable tourism initiatives. This might involve training locals in sustainable tourism practices, entrepreneurship, and hospitality management. A multi-stakeholder approach that includes local governments, businesses, NGOs, and communities is essential for inclusive, equitable, and sustainable tourism development. By fostering networks that bring together diverse stakeholders across borders, countries can ensure that tourism initiatives are well-rounded and considerate of various perspectives.

6. *Policy Harmonisation and Supportive Governance*: Harmonising tourism policies across borders is necessary for a consistent approach to sustainability. Aligning regulations on environmental protection, heritage preservation, and tourism standards can facilitate seamless tourism experiences while safeguarding the region's cultural and natural assets. Additionally, creating cross-border funding mechanisms or incentives for businesses and projects that contribute to sustainable tourism is recommended. This could be supported by EU funds, especially since Croatia and several of its neighbours are either EU members or candidate countries. Such funding could stimulate the development of innovative, sustainable tourism projects that benefit the entire region.

7. *Monitoring and Evaluation*: Implementing cross-border monitoring systems to assess the impact of tourism on the environment and local communities is crucial for long-term sustainability. Developing common sustainability metrics and conducting regular evaluations can guide future tourism policies and practices. This adaptive management approach ensures that tourism initiatives remain responsive to changing conditions and stakeholder needs.

8. *Case Studies and Best Practices*: Analysing successful examples of cross-border sustainable tourism initiatives in the region can provide valuable insights for future projects. The Mura-Drava-Danube Biosphere Reserve, for instance, serves as an excellent case study of how transboundary natural heritage can be preserved and promoted. Drawing comparisons with successful cross-border tourism models from other parts of the world, such as the Nordic countries or the Alps, can also offer lessons that could be adapted to the Croatian context.

CONCLUSION AND LIMITATIONS OF THE STUDY

This study has explored the dynamics of cross-border tourism development within the framework of the Interreg programme, focusing particularly on sustainable tourism initiatives between Croatia and its neighbouring countries. The findings emphasise the significance of cross-border cooperation in fostering innovation and enhancing sustainable practices within the tourism sector. Furthermore, the findings reveal that collaborations, particularly between Croatia and Slovenia, have been instrumental in driving innovations and enhancing tourism practices that prioritise environmental and cultural sustainability.

The results of the study provide a comprehensive overview of how cross-border cooperation within the Interreg programme has contributed to sustainable tourism development in this part of Europe, emphasising collaboration, innovation, and regional specificity.

The findings of this study, highlighting the role of cross-border cooperation through the Interreg programme, have implications that extend beyond Croatia and its neighbouring regions. By illustrating how partnerships foster innovation and sustainable practices, these results show the potential of collaborative initiatives to address challenges common across Europe, such as environmental degradation, seasonality, and cultural preservation in tourism.

The successful examples of collaboration between Croatia and Slovenia, in particular, provide a model that can be adapted and scaled in other European regions, where shared goals in sustainability could similarly benefit from cooperative frameworks. This study suggests that strengthening cross-border tourism initiatives can help align regional tourism practices with Europe-wide sustainability goals, supporting broader EU efforts to balance economic growth with environmental and cultural stewardship. As sustainable tourism remains a priority for the EU, especially within frameworks like the European Green Deal, the insights gained here offer valuable lessons for policymakers and stakeholders. Encouraging the spread of best practices across borders could not only enhance the sustainability of tourism within individual regions but also contribute to a more integrated and resilient tourism sector across Europe as a whole.

Despite the insights gained, this study is limited by its focus on a specific timeframe (2014-2020) and geographical scope (Croatia and neighbouring countries). This focus may not fully capture recent developments in cross-border tourism or address changes in policies and economic conditions post-2020, potentially affecting the applicability of the findings to current and future initiatives. Additionally, concentrating on Croatia and its immediate neighbours limits the generalisability of the results across broader European contexts, where different cultural, environmental, and economic factors may influence sustainable tourism outcomes.

The findings may also be limited by the primary reliance on quantitative data, which may not fully account for the experiences and perspectives of local stakeholders or residents in these cross-border areas. Integrating qualitative insights from project participants and residents could offer a more nuanced understanding of the social, economic, and environmental impacts of these initiatives. For example, surveying residents of cross-border regions could reveal their awareness of project outcomes and opinions on how these initiatives contribute to regional competitiveness.

Future research could expand the analysis to include a broader European context, utilising both quantitative and qualitative methodologies to capture a more comprehensive picture of cross-border sustainable tourism development. Specifically, mixed-methods studies could be highly beneficial, combining surveys and structured interviews with stakeholders (such as tourism operators, local government officials, and community leaders) to explore their experiences with cross-border initiatives, as well as perceptions of project outcomes. Longitudinal studies are also recommended to assess the long-term impacts of sustainable tourism projects initiated through cross-border cooperation. By tracking key indicators over time, such as tourism volume, environmental quality, and economic benefits, these studies could offer insights into how sustainable practices evolve and endure. Case studies focusing on specific cross-border regions could provide an in-depth view of successful practices and challenges, allowing for comparison across different cultural and geographical contexts. Additionally, conducting comparative analyses across multiple Interreg programmes could help identify factors that enhance or limit the success of cross-border tourism initiatives. To assess community impact, participatory action research could involve local communities directly, gathering insights on residents' awareness and attitudes toward sustainable tourism projects and evaluating community-level benefits over time. These specific methodologies would not only deepen our understanding of cross-border cooperation in sustainable tourism but also provide practical insights to guide policymakers and practitioners aiming to scale these initiatives across Europe.

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