

The Impacts of Green Key Certification on Tourism Enterprises in the Algarve

Eleonora Biassoli  ¹

Manuela Pires Rosa  ²

Valentina Tocchioni  ³

1. University of Florence, Department of Economy, Florence, Italy

2. Universidade do Algarve, CinTurs - Reserch Centre for Tourism, Sustainability and Well-being, Faro, Portugal

3. University of Florence, Department of Statistics, Informatics, Florence, Italy

ABSTRACT

This paper explores the intricate relationship between sustainability and tourism in the Algarve, specifically focusing on the Green Key label's role in hotels and hospitality enterprises in the Algarve region. The study highlights the importance of the Green Key certification in driving eco-conscious practices within the tourism sector, tracing the evolution of sustainable tourism in the Algarve. The Algarve region serves as a captivating backdrop for this investigation. The research methodology was conducted on establishments that won the Green Key certification in 2023. This included the research design, sampling procedures, questionnaire development, data collection, and analysis methods. The analysis of questionnaire results is a focal point, offering insights into establishment profiles, motivations for participating in the Green Key program, the tangible and intangible benefits derived, compliance with certification criteria, and establishments' plans for sustainability. The findings reveal a strong commitment to sustainable practices among various types of accommodations, with long-term Green Key award holders demonstrating significant environmental awareness. Additionally, the results highlight that Green Key certification positively impacts brand reputation, customer loyalty, and operational efficiency, emphasizing its role in promoting sustainability within the tourism sector. These findings contribute to the growing body of research on eco-certifications by demonstrating their practical value in enhancing business performance while supporting environmental goals. Practically, the study provides valuable guidance for policymakers, tourism stakeholders, and hospitality managers aiming to integrate sustainability frameworks and certifications as strategic tools for responsible tourism development in the Algarve and beyond.

KEYWORDS

Sustainable Tourism, Green Key Certification, Algarve Region, Environmental Responsibility.

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1. Introduction

In recent years, the tourism industry has increasingly adopted sustainable and responsible practices in response to growing environmental concerns and stakeholder demands (UNEP/WTO, 2005). Achieving sustainability in tourism requires a comprehensive approach that balances the needs of visitors, local communities, and the environment while ensuring the sector's long-term economic viability. This involves responsible use of natural resources, respect for cultural heritage, and monitoring tourism impacts to maintain satisfaction among tourists and residents. Effective sustainable tourism relies on the active engagement of stakeholders and strong political leadership. It applies to all segments and scales, requiring continuous oversight and prompt corrective measures. Promoting sustainability throughout the tourism value chain and raising awareness of best practices is crucial to fostering responsible tourism behaviours (Ekka et al., 2023).

The Foundation for Environmental Education (FEE) is crucial in managing and coordinating sustainability through its renowned programs, notably the Green Key and Blue Flag certifications (FEE, 2021). Among these, the Green Key certification is one of the most prominent eco-labels in Portugal, primarily targeting the hospitality sector, including hotels, campsites, guesthouses, and restaurants. This certification was introduced in Portugal in 1996 and has gained widespread recognition for promoting environmental responsibility among tourism establishments. Green Key-certified establishments are required to meet strict criteria related to energy and water consumption, waste management, eco-friendly products, and community engagement, ensuring a commitment to sustainability practices. According to the European Blue Flag Association (ABAAE), which coordinates the program in Portugal, Green Key has become a symbol for tourists looking for environmentally friendly options, with a growing number of Portuguese hotels and accommodations achieving certification (ABAAE, 2021).

Although not exclusive to the tourism sector, the Blue Flag certification is an important eco-label in Portugal, particularly for beaches and marinas. The program focuses on sustainable beach management, water quality, safety, and environmental education. Portugal is one of the leading countries in terms of Blue Flag-certified beaches, with over 300 beaches receiving the certification annually. This has enhanced Portugal's reputation as a sustainable beach destination, appealing to tourists who prioritize environmental quality and safety (FEE, 2021).

Marketing strategies play a pivotal role in promoting sustainable tourism and enhancing the visibility of eco-certified establishments. In the context of Green Key certification, marketing approaches such as green branding, eco-labeling, and content marketing are instrumental in attracting eco-conscious travelers. Establishments strategically leverage their sustainability credentials through digital platforms, social media, and in-house displays to communicate their environmental commitment. By aligning marketing messages with sustainability values, businesses can effectively build brand loyalty, increase customer engagement, and differentiate themselves in a competitive market. This integration of sustainability into marketing strategies not only enhances brand reputation but also drives customer satisfaction and operational efficiency (Zheng et al., 2025).

This study investigates the impact of the Green Key label on the hospitality industry in Portugal's Algarve region by surveying the 2023 Green Key award winners. The paper aims to explore how green certification influences sustainable practices and marketing strategies within this context. It is structured into four main sections: the literature review examines the importance of sustainable tourism and the role of green certifications; the methodology describes the research design; the results section presents a comprehensive overview of the findings; and the conclusion discusses the main insights and implications of the study.

2. Literature Review

2.1 Sustainable Tourism Certifications

Sustainable tourism practices are essential for minimizing negative environmental impacts, promoting social equity, and strengthening local economies. According to the United Nations World Tourism Organiza-

tion (UNWTO), sustainable tourism meets the needs of current tourists and host regions while preserving opportunities for the future. It balances environmental, social, and economic objectives through strategic initiatives like the Global Sustainable Tourism Council (GSTC) Criteria, which emphasize sustainable destination management via stakeholder engagement and adaptive practices (GSTC, 2016; UNWTO, 2019).

The growing demand for sustainable tourism options is not merely a trend but a necessity, as evidenced by increasing consumer awareness and expectations (Xing, 2024). Sustainable tourism certifications have emerged as powerful catalysts for change, encouraging tourism operators to implement practices that align with sustainable development principles (Viglia & Acuti, 2023). Certifications such as Green Key play a pivotal role in reducing energy and water consumption, enhancing waste management, and protecting biodiversity, thereby demonstrating the tangible environmental benefits of sustainable practices (Velaoras et al., 2024).

However, the widespread adoption of sustainable tourism practices faces several challenges. A significant barrier is the lack of knowledge about indicator systems, insufficient training, and limited awareness of sustainability's value among local authorities (McLoughlin et al., 2023). These gaps hinder the effective implementation of sustainable tourism policies. To overcome these challenges, researchers suggest innovative approaches, including leveraging digital tools for transparency and communication, simplifying certification processes, and offering financial incentives to small businesses (Velaoras et al., 2024).

Capacity-building initiatives are also crucial. According to Dias et al. (2024), training tourism professionals to collect and analyze sustainability data can improve operational efficiency and reduce costs. Certification schemes not only benefit individual businesses but also contribute to the long-term sustainability of entire destinations. To amplify these benefits, destination management organizations (DMOs) and government institutions should actively promote certifications by offering financial support, tax incentives, and targeted campaigns aimed at medium and large enterprises.

Recent campaigns have highlighted the role of certifications in climate action. Both Green Key and Blue Flag, for instance, launched the ClimACT campaign as part of the GAIA 20:30 initiative, focusing on climate change mitigation. This campaign encourages tourism professionals and travelers to adopt sustainable practices like reducing energy and water consumption and improving waste management. By promoting accessible and straightforward solutions, the ClimACT campaign fosters collective action towards climate-positive tourism. It also engages the broader tourism network through free events and activities, maximizing positive environmental impacts and raising awareness about the sector's role in climate change mitigation (Green Key, 2024).

2.2 Benefits and Challenges of Green Certifications on Tourism Establishments

Green certifications are designed to encourage tourism establishments to adopt more sustainable practices. According to Bianco et al. (2023), sustainability certifications have a significant positive impact on hospitality businesses by enhancing performance metrics and improving market positioning. These certifications boost key performance indicators (KPIs) such as revenue per available room (RevPAR), average daily rate (ADR), and occupancy rates, allowing certified hotels to outperform their competitors. Hotels that lead the way within their competitive set particularly reap the benefits, achieving superior financial results through increased customer loyalty and establishing barriers to switching. Additionally, certifications attract environmentally conscious guests who are often willing to pay premium prices, thus contributing to a higher ADR and enhancing the hotel's reputation. This trend aligns with the growing demand for eco-friendly accommodations. Implementing sustainable practices also leads to long-term cost savings by improving operational efficiencies in energy and waste management.

Green certifications frequently serve to raise the environmental consciousness and knowledge of both employees and guests. Buckley (2012) underscores that certifications (like the Blue Flag) require tourism operators to introduce educational programs concerning environmental sustainability. This proactive approach contributes to a broader comprehension of sustainable practices among all stakeholders, fostering behavioural changes that extend beyond the immediate operational environment.

From a marketing standpoint, green certifications can offer a competitive advantage in the competitive tourism market. Kang et al. (2012) discovered that establishments with green certifications can command

premium prices and appeal to a niche market of environmentally conscious travelers. Moreover, certifications can result in higher customer satisfaction and loyalty, as demonstrated by Myung et al. (2012), who observed increased repeat visits and occupancy rates among certified establishments. Sustainability certifications significantly enhance customer trust in hotels, cultivating a perception of responsible and sustainable management. This, in turn, increases the likelihood of repeat visits and a greater willingness to pay premium prices. Certified hotels also bolster their brand image, attracting environmentally conscious customers. Furthermore, those who perceive hotels as “green” are more inclined to select them and support eco-friendly practices. By helping to distinguish hotels from their competitors, sustainability certifications enhance their market appeal (Chi et al., 2022). These certifications enable hotels to stand out in a competitive market by responding to the increasing demand for sustainable tourism. This perspective is reinforced by recent research from Rodríguez-García et al. (2023), who conducted a comparative analysis of major international hotel certifications, underscoring their role in enhancing brand positioning, fostering customer loyalty, and driving sustainability-oriented innovation.

Despite their benefits, green certifications have challenges. One significant issue is the variability in certification standards and the lack of uniformity across different programs. According to Futagami and Kumara (2022), this inconsistency makes it challenging for consumers to identify truly sustainable hotels. Various certifications apply different criteria, so labels can become confusing or misleading, leading to a lack of trust in their authenticity. The absence of globally recognized standards diminishes the effectiveness of these certifications in driving meaningful environmental change within the hospitality industry. Moreover, consumer awareness, trust, and willingness to pay for certified hotels vary widely across different regions and demographic groups, influenced by cultural values and the clarity of certification criteria (Velaoras et al., 2025). These factors underline the importance of considering consumer perceptions when assessing the overall impact of green certifications.

The financial burden associated with obtaining and maintaining certifications also poses a challenge, particularly for small and medium-sized enterprises (SMEs). Bianco et al. (2023) note that for many small and medium-sized hotels, the costs of obtaining and maintaining certifications can be prohibitive. Additionally, implementing necessary improvements, such as upgrading to energy-efficient systems or installing water-saving technologies, can be financially demanding.

One notable drawback of sustainability certifications is the potential for greenwashing, where companies make misleading or exaggerated claims regarding their environmental advantages. As noted by Elzek et al. (2021), some organizations exploit these certifications as marketing tools rather than committing to genuine environmental improvements. This practice not only undermines the credibility of green certifications but also misleads consumers who are earnestly seeking sustainable and eco-friendly options. Consequently, the prevalence of greenwashing diminishes the effectiveness of these certifications, making it more challenging for consumers to place their trust in them and discouraging businesses from genuinely investing in sustainable practices.

Research by Durmuş Şenyapar (2024) also highlights that the proliferation of eco-labels and certifications, coupled with inconsistent standards and inadequate verification processes, leads to considerable confusion among consumers. This confusion complicates consumers' ability to distinguish truly sustainable establishments from those practicing greenwashing, thereby heightening the risk of greenwashing, diminishing the impact of legitimate green certifications, and eroding public trust in environmental claims.

2.3 Rising Importance and Adoption of Environmental Certifications in the Hotel Industry

In recent years, environmental certifications like Green Key, EarthCheck, LEED (Leadership in Energy and Environmental Design), and ISO 14001 (International Organization for Standardization) have become increasingly important in the hotel industry. These certifications help hotels reduce their environmental impact, improve operational efficiency, and stand out in a competitive market. EarthCheck is a globally recognized certification and benchmarking program designed specifically for the tourism and hospitality sector. It helps hotels measure and improve their environmental performance in energy use, waste management, and carbon emissions (EarthCheck, 2024). Similarly, LEED focuses on sustainable building practices, assessing factors like energy efficiency, water conservation, indoor environmental quality, and eco-friendly materials (U.S. Green Building Council, 2025). ISO 14001, as an internationally recognized

standard, establishes best practices for environmental management systems, guiding organizations in identifying and controlling their environmental impact while ensuring compliance with regulations and promoting continuous improvement (International Organization for Standardization, 2025).

The growing demand for sustainability, driven by regulatory pressures and eco-conscious travelers, has made these certifications a strategic tool for attracting guests who prioritize environmental responsibility. By adopting recognized standards, hotels not only comply with regulations but also enhance their brand image, meeting the evolving expectations of modern consumers.

Recent studies highlight the significant role of environmental certifications in influencing consumer behaviour. For instance, Alhassan et al. (2024) found that while green certifications can serve as effective marketing tools, their actual impact on customer satisfaction may be mediated by perceived hotel quality. This suggests that hotels must not only obtain certifications but also ensure that their overall service quality meets consumer expectations. Similarly, Qubbaj et al. (2023) highlighted that growing customer interest in green practices has led to an increase in the number of green certifications within the hotel sector, suggesting a direct correlation between consumer demand and the adoption of sustainable practices.

The economic implications of adopting environmental certifications are also noteworthy. Researchers discussed how the adoption of sustainable practices in the hospitality industry is influenced by various factors, including establishment size and stakeholder pressure (Shereni et al., 2023). This underscores the need for hotels to strategically align their sustainability initiatives with market demands and operational capabilities. Furthermore, Martins et al. (2023) identified key determinants of environmental certification in Portuguese hotel companies, suggesting that understanding these factors can help hotels better navigate the certification process and enhance their sustainability efforts.

As sustainability continues to shape travel decisions, awareness of hotel certifications is expected to rise, particularly among younger generations such as Millennials and Generation Z. These age groups are more informed about environmental issues and tend to favor eco-friendly accommodations (Wu et al., 2024). This growing awareness has led to increased demand for transparency in the certification process, with consumers seeking detailed information about the implications of specific certifications on hotel operations. The emphasis on transparency not only fosters consumer trust but also encourages hotels to adopt more rigorous sustainability practices to meet the expectations of these discerning travelers.

Moreover, integrating technology within the hospitality sector, particularly through Industry 4.0 innovations, presents new opportunities for enhancing sustainability efforts. Ben Youssef and Zeqiri (2022) found that implementing Industry 4.0 technologies can help hotels combat climate change by aligning operational practices with sustainability goals. This technological integration streamlines processes, reduces waste, and improves resource management, further reinforcing the value of environmental certifications in achieving sustainable operational practices.

Despite the benefits, implementing sustainable practices and obtaining certifications remains challenging. Small and medium-sized enterprises, particularly in developing regions, may lack the necessary resources for certification. This underscores the need for tailored support to help these establishments adopt sustainable practices that align with their operational capabilities (Shereni et al., 2023).

3. Methodology

The design choice aligns with the research objectives, which aim to explore the current state of affairs and the underlying dynamics and contextual factors that impact adopting and implementing sustainable practices among hotels awarded the Green Key certification in the Algarve in 2023.

The research design selected for this study is a cross-sectional survey that provides a detailed overview of sustainability practices and marketing strategies among award-winning hotels in the Algarve region in 2023. The survey is a self-administered questionnaire distributed online and includes closed and open-ended questions. This approach allows for the gathering of both quantitative and qualitative data. Quantitative data provides numerical insights into trends and patterns, while qualitative data offers a deeper understanding of the participating hotels' attitudes, motivations, and challenges.

The population of interest was 41 Green Key award-winning hotels in the Algarve region for 2023. The criteria for selection identified hotels that demonstrated exemplary commitment to sustainability practic-

es, as recognized by the Green Key certification. These establishments, comprising various accommodation types such as hotels, bed and breakfasts, and resorts, were purposefully chosen to offer a comprehensive and diverse perspective on sustainable initiatives within the regional hospitality sector.

The Green Key certification is awarded to establishments that demonstrate a commitment to sustainability across various operational aspects. The criteria for achieving this prestigious award encompass a broad range of environmental practices, each contributing to the overall environmental performance of the establishment. The following areas are the key components of Green Key certification, each focusing on specific aspects of environmental and social responsibility:

1. Environmental management
2. Staff involvement
3. Guest information
4. Water consumption
5. Cleaning and hygiene
6. Waste management
7. Energy management
8. Food and beverage practice
9. Indoor environment
10. Green area
11. Corporate social responsibility
12. Green activities
13. Administration

The criteria are not only about meeting environmental standards but also about fostering a culture of sustainability that engages staff, guests, and the local community in positive environmental change.

The data collection process for this study involved distributing a structured questionnaire to Green Key-certified establishments in the Algarve region. The survey was conducted over a ten-month period, beginning on 31 October 2023 and concluding on 4 September 2024.

The questionnaire opens with a comprehensive and concise overview of the research topic, outlining the study's purpose and scope. Additionally, the questionnaire mentions that complete data privacy and anonymity are ensured in order to build trust with respondents and guarantee that their answers remain confidential. The questionnaire has been thoughtfully designed with three distinct sections that work together to gather pertinent information. The initial section covers general questions, offering some general information of the accommodation. The second section delves deeper into the impact of the Green Key label on the participants' establishments. Finally, the third section focuses on the specific criteria associated with the Green Key certification. This comprehensive structure includes 13 closed-ended questions, predominantly using a Likert scale format, allowing respondents to indicate their level of agreement or frequency on a standardized scale. Additionally, participants can provide more detailed insights with three non-mandatory open-ended questions, encouraging qualitative input and fostering a more comprehensive understanding of their perspectives. This methodological approach facilitates a nuanced exploration of participants' experiences and perceptions of the Green Key certification.

The survey administration process involves carefully disseminating a thoughtful questionnaire to all 41 winners from the 2023 Green Key Awards in the Algarve region, including hotels, bed & breakfasts, and resorts. It should be noted that the survey was initiated at the end of 2023, while the winners of the 2023 Green Key certification were determined based on the criteria they met in 2022, as the evaluation process refers to the establishments' performance in that period. The procedure typically involves a thorough application process, including an on-site audit, and takes between three to six months. As such, the winners of the 2023 Green Key certification would have started their application process in 2022. While the specific dates of the announcement and any related ceremonies may vary, the certification is usually made public at the beginning of the year.

The respondents were selected through the official website of Green Key in the "Winners 2023" section, which provides every winner's email address, telephone number, and official website. The questionnaire was distributed via email, accompanied by a detailed cover letter that clearly outlined the purpose of

the research and emphasized the importance of participants' contributions. The cover letter is essential in establishing engagement and context for the survey. It highlights the significance of participants' insights and guarantees the confidentiality of their responses. Additionally, it communicates the intention to share research findings with participants, promoting transparency and collaboration in the research environment. Despite the meticulous planning and effort invested in the survey process, it is essential to acknowledge the challenge posed by a significantly low response rate, which often occurs in online surveys. Multiple contacts and email solicitations were employed to encourage greater participation, yet the final number of respondents amounted to 20, showing the inherent difficulties of engaging participants in self-administered online surveys. According to Mason (2010), an analysis of 560 PhD studies revealed that 20 was the second most common sample size, with over 80% of all studies having a minimum sample size of 15.

The Green Key questionnaire was analyzed comprehensively through a dual approach, utilizing both qualitative and quantitative methods. The qualitative data from open-ended responses was analyzed using thematic coding in Microsoft Excel. Given the limited size of the dataset, Excel provided an effective and appropriate tool for organizing and identifying recurring themes and patterns, enabling nuanced insights into participants' perceptions and experiences with the program. A thematic analysis was employed to systematically explore the qualitative responses, revealing common threads and unique perspectives. This qualitative component added depth and context to the survey outcomes. Quantitative data was also analyzed using Microsoft Excel for producing descriptive statistics (graphs and tables). In addition, basic inferential statistical techniques, such as cross-tabulations and chi-square tests, were employed to explore potential associations between hotel characteristics (e.g., size, category) and their reported sustainability practices. While the small sample size limited the use of more advanced testing, these tests offered preliminary insights into whether observed patterns were likely to be statistically significant or the result of random variation. The survey results were comprehensively interpreted by combining qualitative and quantitative analyses. This hybrid approach captured the richness of participants' qualitative responses and provided statistically grounded insights into the prevalence of specific sentiments and trends. The analyses offered a robust foundation for understanding the multifaceted impact of the Green Key program from both qualitative and quantitative perspectives.

4. Results

4.1 Establishment Profiles and Motivations for Green Key Participation

The initial section of the survey aims to gather insightful information about the participating establishments. The first question seeks to identify the establishment's classification, with answer options including Hotel, Bed & Breakfast (B&Bs), Resort, Residence, and others.

The results show that 8 out of 20 of the respondents are resorts, indicating a strong commitment to sustainable practices among larger-scale, luxury accommodations. 9 of the participants are hotels, reflecting the significant involvement of more conventional establishments in adopting eco-conscious measures. Smaller-scale options, such as guest houses and B&Bs, each make up 1 of the respondents, demonstrating that sustainability efforts are also embraced by more intimate lodging options. Additionally, 1 of the respondents is in the camping and resort category, showcasing a commitment to sustainable practices across diverse accommodation types, including outdoor environments.

The following question delves into the geographical coverage of the participating establishments, aiming to uncover the extent of their locations beyond the Algarve region. Based on the responses, most establishments (19 out of 20) do not have areas outside Algarve. However, one respondent has confirmed having establishments in Europe, Asia, and Brazil, indicating a more extensive geographical presence. This response suggests that the latter establishment operates as part of a chain with an international footprint.

Among the 20 respondents, 9 have held the Green Key award for a substantial period of 3-5 years, illustrating a strong long-term commitment to sustainable practices. 8 of the respondents have held the award for 1-2 years, reflecting a growing trend in adopting sustainable initiatives. Additionally, 3 of the

respondents have received the award in less than 1 year, indicating a recent move towards sustainability or that they had already implemented environmental measures in the past but had not previously applied for certification. However, it is important to emphasize that achieving Green Key certification requires significant effort and time. The process involves meeting rigorous sustainability criteria and ensuring consistent implementation of sustainable practices, which typically requires several years of work and gradual adaptation to the necessary standards before certification can be awarded.

The responses to the question regarding the primary type of guests show a clear trend: the majority of establishments focus on leisure clientele, with 13 of respondents indicating they cater to “mostly leisure” guests and 3 serving “only leisure” guests. Additionally, 3 of the establishments cater to a mix of both leisure and business visitors (“half and half”), while only 1 primarily serves business guests (“mostly business”). These findings suggest a strong emphasis on leisure-focused services and amenities. Understanding the predominant guest type is essential for tailoring services and marketing strategies. Given the high prevalence of leisure-oriented establishments, there is a significant opportunity to further enhance offerings that meet the needs and preferences of leisure vacationers.

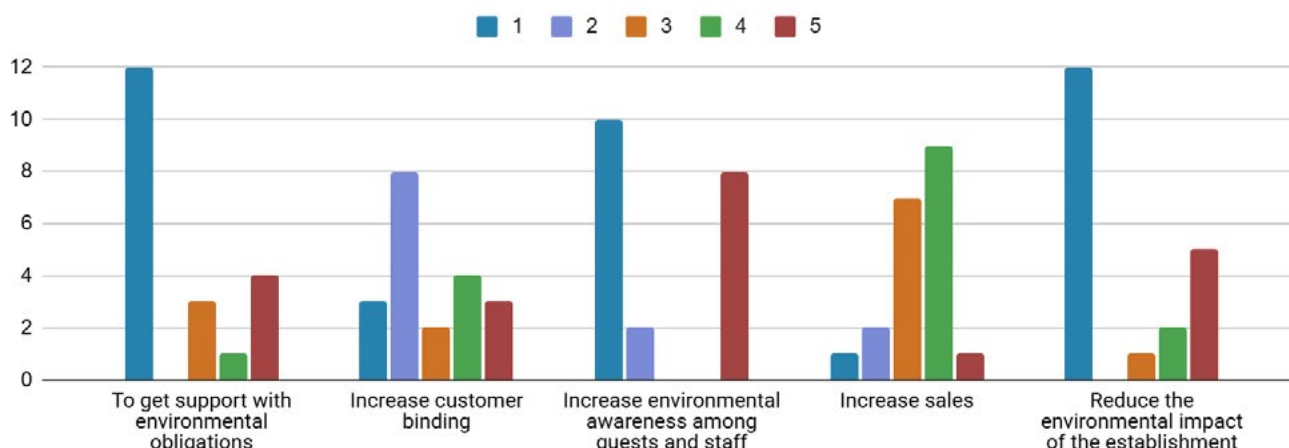
The feedback on the question, “Do you inform your guests about the Green Key award?” reveals that most establishments actively communicate their certification, reflecting a strong commitment to sustainability. Only 1 respondent answered “Maybe,” suggesting an opportunity to enhance communication strategies. Respondents use different methods to show the certification, including check-in processes, social media, websites, and in-house displays. Many use physical displays, such as signs and flyers, and direct personal engagement to discuss sustainable practices. These varied approaches ensure broad visibility and demonstrate a commitment to not just showcasing the award but also educating guests about sustainability throughout their stay.

Upon further analysis, the responses reveal the various channels through which Green Key awareness reached different establishments. 7 of the respondents attributed their certification knowledge to authorities, highlighting the significant role of regulatory bodies in promoting sustainability initiatives. 6 of the respondents indicated that their awareness came from their hotel chains, suggesting a top-down approach where some chains actively encourage or require Green Key certification. An additional 6 establishments reported learning about the Green Key through the media, emphasizing the influence of media outlets and online platforms in shaping sustainability priorities. The National Green Key Office accounted for 2 of the awareness, reflecting the role of national organizations in disseminating information. The remaining respondents cited other sources, such as external consultants, in spreading awareness.

The final question of the first module of the questionnaire asks respondents to rank their motivations for joining the Green Key on a scale of 1 to 5, where 1 is the most important and 5 is the least important (Figure 1). The analysis of the reasons for joining the Green Key scheme shows a range of motivations among the establishments. The most common reasons include a desire to receive support with environmental obligations and to reduce their overall environmental impact, highlighting a strong commitment to sustainable practices and regulatory compliance.

Many establishments (10) also aim to increase environmental awareness among guests and staff, suggesting a focus on education and engagement as part of their sustainability efforts. Additionally, 8 of the respondents view the Green Key certification as enhancing customer loyalty, reflecting the growing importance of eco-conscious branding and reputation. While increasing sales was ranked lower overall, it remains a relevant consideration for 9 of the establishments. Generally, the motivations to join the Green Key scheme emphasize a balance between environmental responsibility and building a positive relationship with both customers and employees.

Figure 1. Reasons to join the Green Key according to the participants

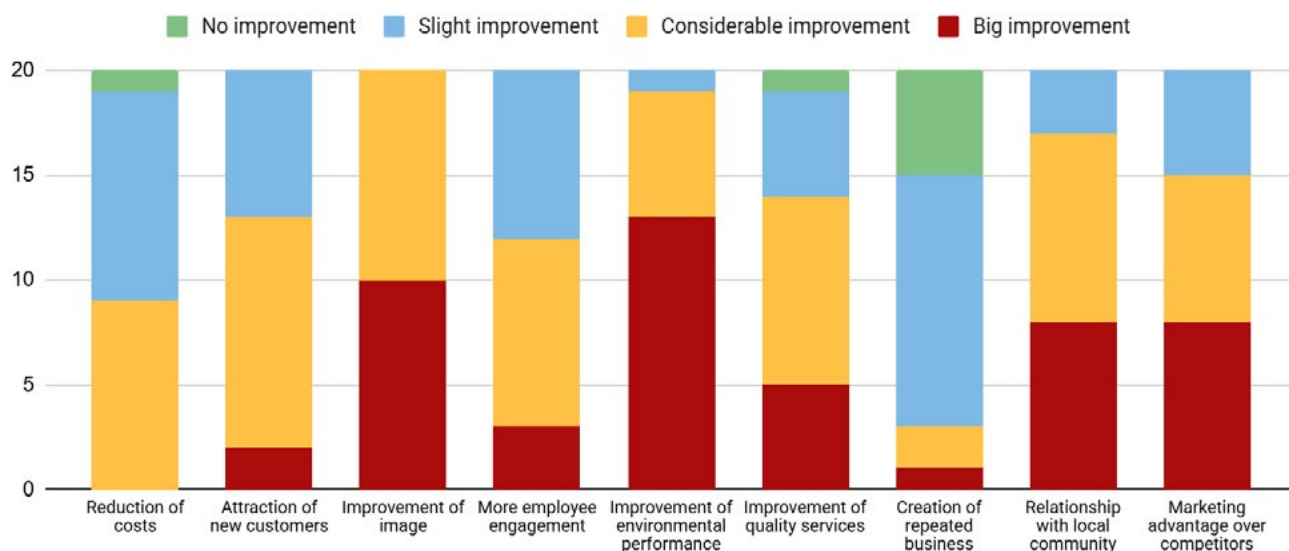


Source: Own Elaboration

4.2 Impacts and Benefits of the Green Key Label

This section aims to understand the impacts and benefits of participating in the Green Key Programme from the participant's point of view. A specific question asked about the benefits of implementing Green Key, looking at 9 aspects of benefits and with a four-point scale as a possible answer (“no improvement”, “slight improvement”, “considerable improvement”, or “big improvement”). (Figure 2). The findings suggest that establishments experience improvements in several key areas, including cost reduction, customer attraction, brand image, and environmental performance. A number of 10 respondents report that the Green Key certification significantly enhances their reputation and visibility in the market, offering a competitive edge and fostering a positive public image. Moreover, the certification helps to strengthen relationships with local communities and boost employee engagement, indicating that sustainability efforts positively affect both internal and external stakeholders. Several 9 participants also see gains in service quality, with many reporting enhanced offerings that align with sustainability goals.

Figure 2. Benefits of implementing Green Key according to the participants



Source: Own Elaboration

While some benefits, such as increased repeat business, are less pronounced (12 respondents didn't notice a remarkable improvement), the overall impact of Green Key certification is largely positive. It not only supports environmental goals but also provides tangible business advantages, such as attracting new customers and improving market positioning. This broad range of benefits demonstrates the value of sustainable practices in driving both ecological responsibility and commercial success.

Moreover, we investigated whether the survey participants believe that Green Key has increased the sustainability of their establishments. According to the results, most respondents positively perceived Green Key's contribution to sustainability. Of the 20 participants, 19 agreed that Green Key had significantly promoted sustainability at their respective sites. This unanimous consensus highlights the positive impact of Green Key. Interestingly, 1 respondent provided a "Maybe" response, indicating a nuanced perspective that may suggest a degree of uncertainty or a need for further assessment. Nonetheless, the majority of respondents strongly affirmed the positive impact of Green Key, while only one expressed a more cautious or uncertain stance.

Participants were asked to grade various aspects by providing assessments for the Green Key program evaluation. The question posed to respondents was about how they would rate a range of values or points of Green Key. Responses ranged from "Very Poor" to "Very Good" (Figure 3). The resulting analysis showcases the distribution of participant responses across these grading categories for each evaluated aspect, providing valuable insights into the program's perceived strengths and areas for improvement.

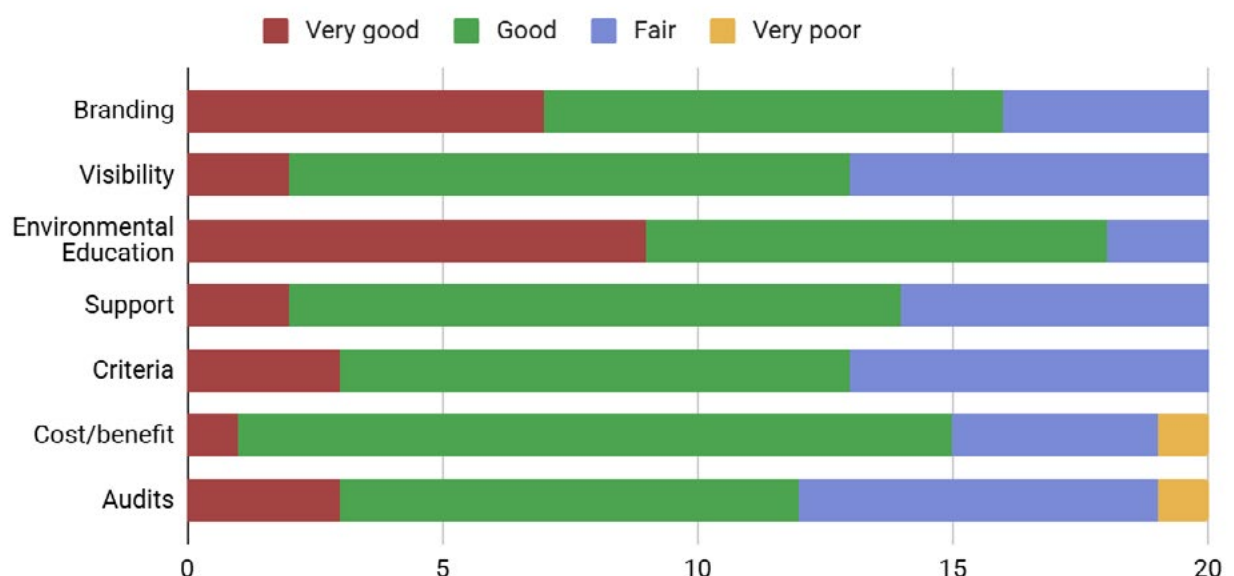
The feedback on the Green Key certification indicates a generally positive perception among participating establishments, with some areas identified for potential improvement. Respondents hold the branding of the label in high regard, with 13 out of 20 rating it as "Good" and 5 as "Very Good." However, 3 rated it as "Fair," suggesting there may be room for enhancing the branding visibility or communication.

Regarding the visibility of the eco-label (online/media), 12 rated it as "Good," but 6 out of 20 rated it as "Fair," indicating some concerns about the public presence of the Green Key eco-label. Only 2 rated it as "Very Good," suggesting an opportunity for greater media visibility and recognition.

Additionally, while the support provided by Green Key is deemed adequate, some respondents believe it could be more consistent (10 out of 20). Feedback on the criteria and on-site audits suggest that these aspects are viewed as fair to good but with potential for refinement for 4 respondents.

In summary, while the Green Key certification is valued for its contributions to sustainability and its benefits to establishments, enhancing visibility, support, and certain procedural aspects could further improve its effectiveness and appeal.

Figure 3. Ranking of values according to the participants



4.3 Criteria Compliance and Future Plans

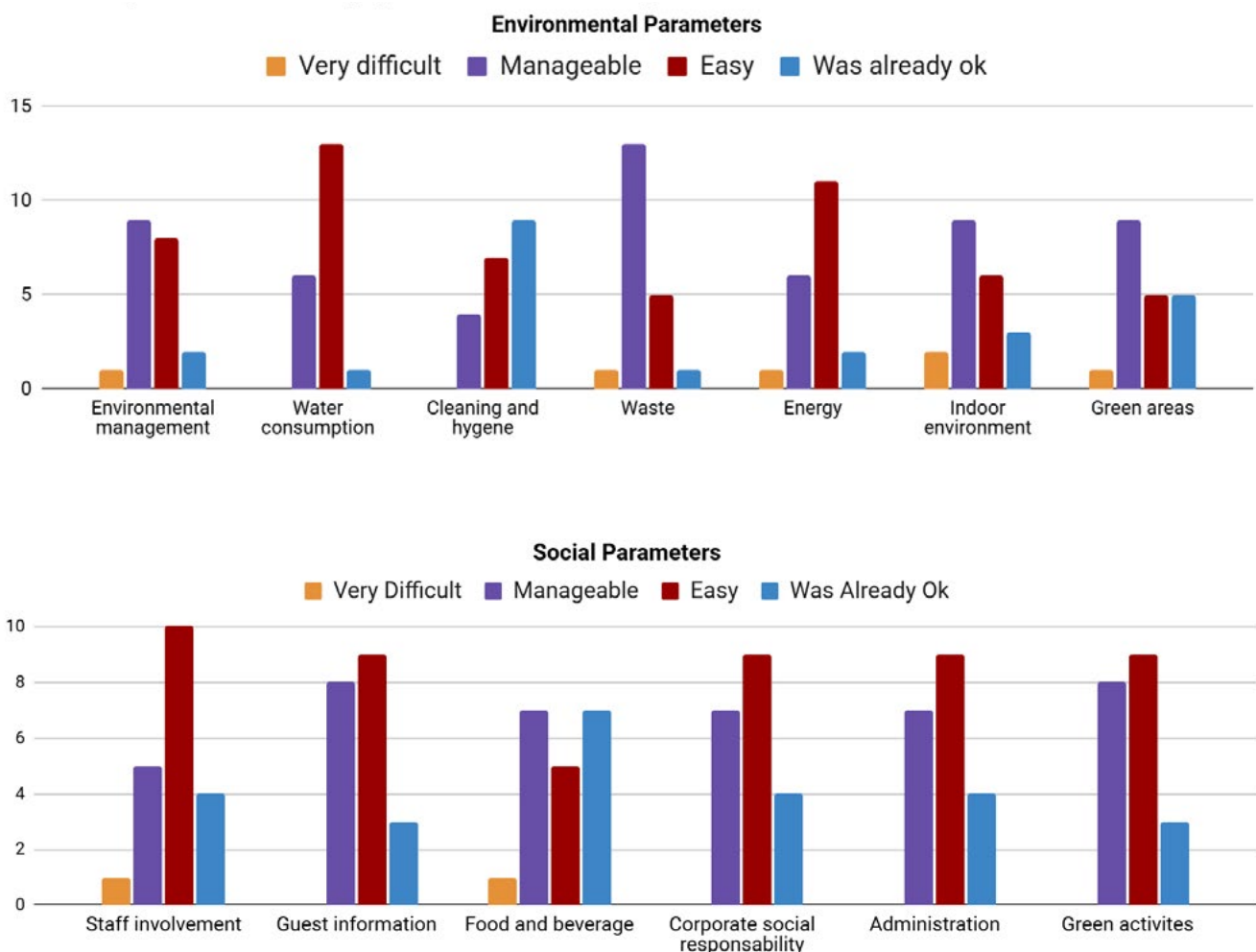
The final section of the questionnaire is dedicated to the pragmatic elements of adhering to Green Key standards. The initial inquiry pertains to the 13 mandatory criteria for securing the award. Respondents were requested to rate each aspect, ranging from “Very difficult” to “Was already ok” (Figure 4).

The feedback regarding compliance with Green Key criteria indicates that most establishments find the requirements to be generally manageable, although the level of difficulty varies across different areas. Many respondents report that compliance with key criteria, such as environmental management and staff involvement, is either manageable or easy, with some even indicating that they already met these standards before certification. This suggests a solid foundation in sustainability practices among the participating establishments.

However, certain criteria, such as guest information, food and beverage practices, and aspects of the indoor environment, tend to be more challenging for some respondents. This indicates that while many establishments are equipped to handle most sustainability requirements, there are still specific areas where additional guidance, resources, or adjustments might be necessary to ensure full compliance.

Additionally, while criteria like water and waste management are generally seen as easier to comply with, some respondents noted difficulties in areas that require ongoing engagement or specific expertise, such as green activities and corporate social responsibility. The results suggest that while the overall process is manageable for most establishments, targeted support and clearer communication around specific criteria could help further ease the path to compliance.

Figure 4. Grade of compliance with the Green Key Criteria according to the participants



Source: Own Elaboration

The upcoming question asks the participants their level of satisfaction with the support given by Green Key in terms of the following categories:

1. Promotional tools include brochures, flags, plaques, and gadgets;
2. Communication tools such as press releases and videos;
3. Homepage;
4. Newsletters;
5. Guidance material, such as templates, CO2 calculator, etc;
6. Guidance for good practices/ information on internal pages;
7. Training;
8. Environmental information such as benchmarking;
9. Checking the criteria/audit/site visit.

Based on participant feedback, Green Key's support has generally been well-received, with most respondents expressing satisfaction. A significant portion reported feeling "Satisfied" or "Very satisfied" across several categories, suggesting that Green Key has largely met the expectations and needs of the participating establishments (Table 1).

However, there were areas where satisfaction levels were more mixed. Specifically, in category 5 (Guidance material such as templates and the CO2 calculator), some respondents indicated dissatisfaction. This points to a need for improvement in the quality or accessibility of the guidance material, highlighting the importance of tailoring support to the specific challenges faced by different establishments. Enhancing these materials could help increase overall satisfaction.

On a positive note, categories like guidance for good practices and internal pages (category 6) received favorable feedback, with many respondents feeling "Satisfied" or "Very satisfied." This reflects the effectiveness of Green Key's efforts in these areas. Despite this, it is important to address any concerns from less satisfied participants to ensure that all establishments find the support helpful and comprehensive.

Table 1. Satisfaction Levels with Green Key Support

Categories	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
Promotional tools			8	7	5
Communication tools	1	1	8	8	2
Homepage		1	6	10	3
Newsletters		1	6	6	7
Guidance material	2	8	3	5	2
Guidance for good practices		4	5	7	4
Training		2	7	7	4
Environmental information			8	10	2
Checking the criteria/audit/site visit			5	12	3

Source: Own Elaboration

The final question pertains to whether to pursue Green Key Certification in the upcoming year. The majority of participants expressed a strong intention to continue with the certification, with 17 out of 20 answering "Yes." A smaller group of 3 answered "Maybe," suggesting some uncertainty or considerations that could be addressed. This indicates an overall satisfaction with the Green Key program, and those who are uncertain may have particular considerations that can be addressed to encourage their continued involvement. It's crucial to better investigate the reasons behind the "Maybe" responses to understand any potential concerns or areas for enhancement. Ultimately, the positive responses strongly suggest a high likelihood of retention for the following year.

At the end of the questionnaire, participants could provide open-ended feedback on the Green Key program. While this was not mandatory, only 7 responses were collected, and many participants chose to offer valuable insights into their experiences with the label. The feedback was positive and constructive, highlighting areas for improvement while acknowledging the program's strengths. Some participants expressed satisfaction with the program, noting that it was well-suited to their business needs and provided helpful guidance on sustainability decisions.

However, others suggested that more support was needed from the Green Key label, particularly regarding engagement with audits and year-round assistance. One participant even proposed including regeneration criteria and the recognition of top performers with a special sign. Finally, one participant expressed a desire for increased engagement with regional tourism authorities and greater awareness of the label overseas. Overall, the feedback suggests that the Green Key program could benefit from ongoing support and engagement, as well as the incorporation of additional criteria to better promote sustainability and redevelopment practices.

This study faced limitations, particularly in data collection. Despite sending a high volume of emails, the survey yielded only 20 responses from 41 targeted establishments. Potential barriers, such as language issues or spam filters, may have contributed to the low response rate. Furthermore, the sample included a disproportionate number of large hotel chains, which may not fully represent the broader diversity of the hospitality sector in the Algarve. As a result, insights from this study may not fully capture the implementation experiences and challenges faced by smaller entities. Future research should aim to incorporate a more balanced sample to better reflect the diversity of the hospitality sector.

5. Discussion

5.1 Theoretical Implications

The findings of this study offer important insights into the profiles, motivations, benefits, and compliance challenges of tourism establishments certified under the Green Key program in the Algarve. A variety of participating accommodation types, from luxury resorts to B&Bs and campsites, demonstrates the widespread commitment to sustainability in the region. Participants reported a broad range of benefits associated with Green Key certification, including enhanced reputation, improved environmental performance, increased customer loyalty, and better market positioning.

These results align with existing literature. For instance, Luo et al. (2019) highlight the positive effects of green certifications on resource conservation, pollution reduction, cost savings, and strengthened Corporate Social Responsibility (CSR). Similarly, Font and McCabe (2017) point to sustainability as a competitive advantage, while Rodríguez-García et al. (2023) show how green labels improve brand image and meet rising consumer expectations. Langgat et al. (2023) further emphasize sustainability's strategic importance for hospitality operations, noting gains in efficiency and customer loyalty.

Despite the benefits, some establishments face challenges in fully meeting Green Key criteria, particularly regarding guest information, food and beverage practices, and indoor environmental standards. Besides the risk of greenwashing, high implementation costs, administrative burdens, and staff training difficulties can hinder full compliance and reduce certification effectiveness, as noted by Gunduz Songur et al. (2022). To maximize impact, sustainability certifications must address these barriers along with limited label recognition and guest engagement by enhancing stakeholder support and offering targeted training. Crucially, certifications must maintain credibility through transparent auditing and genuine sustainability commitments. Evolving consumer preferences, especially among younger eco-conscious travelers, and technological advances will continue to influence the future of sustainable hospitality.

Another area for improvement is the inclusion of social sustainability, particularly accessibility for individuals with disabilities. Although Green Key focuses mainly on environmental practices, integrating accessibility standards can foster inclusivity, broaden market appeal, and enhance community engagement. Studies by Olszewski-Strzyżowski (2022), Karatepe et al. (2022), and Dudzic-Gyurkovich et al. (2022) emphasize the importance of universal design and the role of inclusive tourism in boosting equity and

guest satisfaction. Feedback from participants also indicated a desire for stronger year-round support and more visible recognition of outstanding performers.

5.2 Practical Implications

The findings also have important practical implications for tourism stakeholders. Feedback from participants indicated a desire for stronger year-round support and more visible recognition of outstanding performers.

A recent book chapter discusses how sustainable tourism practices in the Algarve have positively affected natural resources, the economy, urban planning, safety, and monitoring. The adoption of innovative and eco-friendly measures has led to reduced environmental degradation, preservation of natural resources, economic growth, job creation, and improved tourist safety, thereby enhancing the region's reputation as a responsible destination. The chapter emphasizes the importance of collaboration among stakeholders, policymakers, and researchers to promote sustainable tourism development and protect local communities and cultural heritage for future generations (Martins & Correia, 2024). In addition, regional policy frameworks such as the Portuguese Operational Programme for Sustainability and Efficient Use of Resources (POSEUR), supported by EU Cohesion Policy funds, play a significant role in shaping sustainability efforts in the Algarve. Valente and Medeiros (2022) found that while POSEUR had a limited impact on most sustainability dimensions in the Algarve, it showed notable effectiveness in supporting climate change adaptation strategies. This suggests that despite existing policy support, the adoption and impact of certifications like Green Key may be constrained by broader economic and implementation challenges. Strengthening the coordination between certification initiatives and regional policies could enhance the overall sustainability outcomes in the region.

6. Conclusion

In conclusion, the Green Key certification continues to serve as a valuable tool for enhancing sustainability within the tourism industry. However, for it to reach its full potential, a more holistic and inclusive approach is needed, one that combines environmental performance with social responsibility and practical support. With strategic guidance, stronger stakeholder collaboration, and attention to evolving consumer expectations, certifications like Green Key can not only boost environmental outcomes but also foster equity, accessibility, and long-term competitiveness. By addressing current limitations and aligning more closely with both local policy frameworks and global sustainability goals, Green Key has the potential to play a pivotal role in shaping a more sustainable and equitable future for the hospitality sector.

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ORCID

Eleonora Biassoli  <https://orcid.org/0009-0003-9091-7559>

Manuela Pires Rosa  <https://orcid.org/0000-0001-5017-6408>

Valentina Tocchioni  <https://orcid.org/0000-0002-0793-6122>

Notes on contributors

Eleonora Biassoli is a graduate student in the field of sustainable development of tourism. Her research interests include environmental management and sustainable practices in the tourism industry.

Manuela Pires Rosa graduated in Civil Engineering in 1984 (Instituto Superior Técnico – Universidade de Lisboa), she got her M.Sc. Renovation of Architectural and Landscape Heritage in 1995 (Universidade de Évora) and Ph.D. Spatial Planning and Environmental Strategies in 2004 (Universidad de Sevilla). She is a coordinator professor at the Institute of Engineering - University of Algarve, where she lectures on sustainability. She coordinated Research Project ACCES4ALL - Accessibility for all in Tourism and she co-coordinated the Project SuSTowns – Enhancing Sustainable Tourism in Small Fascinating Med Town (2021-2022).

Valentina Tocchioni is a professor in Social Statistics. Her current research focuses on fertility and family formation practices, examining their interrelation with employment and housing uncertainties, childlessness, the sexual lives of youth, higher education, and gender issues.