SUSTAINABILITY REPORT

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UP Faculty of Tourism Studies – Turistica

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CONTENT

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1 INTRODUCTION

Sustainability is becoming a core concern for the accommodation sector, including hotels, resorts and other accommodation facilities. This sector, as a major link in the global tourism chain, significantly impacts the environment, local communities, and economies. The need for sustainable practices is critical to reducing negative environmental and social impacts and to ensuring long-term economic viability. To ensure that all facets of sustainability are addressed, the industry needs to establish a reliable and valid monitoring system. Only when impacts are measured can they be addressed. Therefore, the development of sustainability protocols and self-assessment tools is essential to guide SMEs towards implementing sustainable practices.

The overall objective of this report is to assess 1) key sustainability impacts, 2) existing sustainability practices and 3) key issues faced by the accommodation sector in successful sustainable transition. The report provides insight into the current state of sustainability in the accommodation sector and offers research-based empirical support for the development of an effective and efficient Sustainability Protocol and Self-assessment tool, which will help businesses measure and systematically evaluate their sustainability performance, identify areas that need improvement, and implement practices that enhance their sustainability efforts. Important contribution of this report is also to provide insights into the key issues regarding the implementation of sustainable practices in the accommodation sector SMEs and to provide insight to where improvements can be made.

It is important to address that the key limitation of this report lays in the fact that extremely limited empirical data exists on the actual negative (and positive) impacts of accommodation sector and also on the nexus between the impacts and corresponding drivers. Only when data on the impact and drivers exist, can industry and policy makers provide empirically based solutions for the green (sustainable) transition of the accommodation and within that entire tourism. Nevertheless, this limitation is also an important contribution to this report, as it informs project consortium about the need to establish a reliable, easy implementable and operational monitoring system of the sustainable impacts of the accommodation sector. This is not vital only for the MAST project, which aims at creating the supportive environment for the accommodation sector to implement ISO21401 standard, but is also essential for the evaluators to grant (award) the standard.

1.1 Facets of Sustainability in the Accommodation Sector

Sustainability definition

Following the MAST project objectives, the following working definition of Sustainable tourism will be adopted:

"Sustainable tourism is tourism that takes full account of its current and future economic, social and environmental impacts whilst addressing the needs of visitors, the industry, the environment and host communities".

ISO 21401 defines sustainability as a "state of the global system, including environmental, social, and economic aspects, in which the needs of the present are met without compromising the ability of future generations to meet their own needs" (ISO 21401, 3.37, p. 5).

Sustainability impact

Another important facet of sustainability in the tourism sector is the actual impact of tourism on society, economy and natural environment. It is important to understand that tourism may have positive (e. g. regenerating cultural resources) or negative effects (e. g. driving acculturation of the loss of authentic local culture).

This project takes into consideration the three main aspects of sustainability in the accommodation sector:

- Environmental sustainability, which refers to reducing energy and water consumption, minimising waste, and overall responsible interaction with the environment.
- Socio-cultural sustainability, which refers to respect for local cultures, communities and heritage, preservation of cultural identity and minimisation of negative social impact.
- Economic sustainability, which refers to maintaining profitability while equitably distributing economic benefits among stakeholders, including employees, local businesses, and respective communities. It also refers to adopting business practices that are resource-efficient, cost effective, and future-oriented.

Operationalising the above definition of sustainable tourism is key to understanding how the accommodation sector needs to transform to help achieve the overall global sustainable transition of tourism, as described in key global sustainable policies. Examples of such operationalization include:

- making optimal use of environmental resources, including maintaining essential ecological processes and helping to conserve natural resources and biodiversity;

- respecting the socio-cultural authenticity of host communities, by conserving their living cultural heritage and traditional values and contributing to intercultural understanding and tolerance; and
- ensuring viable, long-term economic operations that provide socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

To support understanding of the different potential entry points, Figure 1 shows the connections between 12 policy areas and the three key dimensions of sustainable tourism.
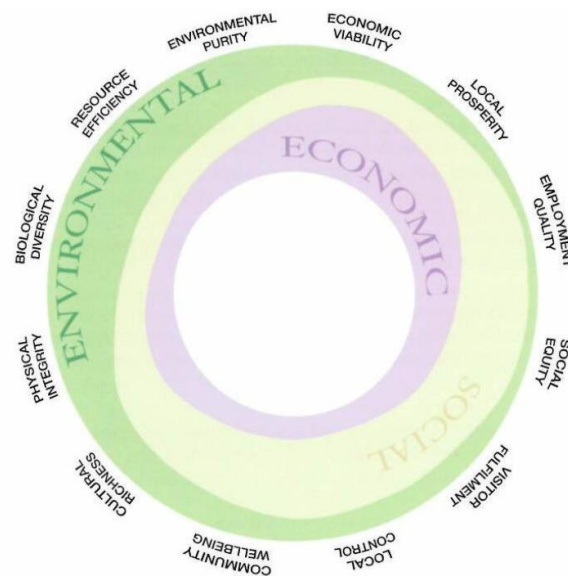

Figure 1: Relationship between policy areas and the key dimensions of sustainability

Source: UNWTO, 2024[1]

Global Sustainable Development Goals are a pivotal social guidance for sustainable transition and are increasingly becoming important benchmark for the excellence and practical value of scientific research and development projects. For example, research proposals, project proposals and scientific manuscripts are expected to demonstrate the contribution of their outputs, deliverables and findings to SDG.

Given the multifaced nature of tourism and its link to Global Sustainable Goals[2], the project consortium adopts the following operationalization of the sustainability of accommodation sector (UNECE, 2023[3]). With operationalization of the sustainability we refer to activities (practical steps) ensuring that ISO21401 standards contribute to specific SDG indicators.

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[1] https://www.unwto.org/tourism-statistics/statistical-framework-for-measuring-the-sustainability-of-tourism
[2] https://tourism4sdgs.org/
[3] https://unece.org/sites/default/files/2023-09/ECE-TRADE-C-CEFACT-2023-09E.pdf

Table 1 : alignment between SDGs and ISO 21401 sustainability operationalization

SDG	OPERATIONALIZATION OF SUSTAINABILITY	ISO 21401 synergy
SDG 6 Clean Water & Sanitation	6.1 Have plans for Water risk assessment. 6.3 Do sewage treatment. 6.4 Use water-saving equipment to minimize water consumption. Ex: Use water-saving shower head and toilet. 6.4 Set goals for reducing water consumption and has regular checking records.	A.3 Natural areas, biodiversity, flora and fauna A.4 Architecture and local construction impact A.5 Landscaping A.6 Solid waste, effluents and emissions A.8 Conservation and management of water usage A.9 Hazardous substances management
SDG 7 Affordable and clean energy	7.2 Favour the use of renewable sources, furthermore, the share of renewable energy in total energy supply is monitored and managed. Ex: solar panels on the roof. 7.3 Use the air circulation equipment to ensure the air is not excessively ventilated, and excessive energy is used for cooling. 7.3 Use equipment and practices to minimize energy use, ex: Use LED lights to reduce power consumption and purchase "Energy Star" appliances wherever possible.	A.3 Natural areas, biodiversity, flora and fauna A.4 Architecture and local construction impact A.6 Solid waste, effluents and emissions A.7 Energy efficiency
SDG 8 Decent work and Economic Growth	8.5 Everyone can get equal pay for equal work and protecting the rights of disabled to work. 8.8 Protecting the rights of labour, child labour and women in industries and promoting a safe working environment.	A.9 Hazardous substances management B.2 Local communities B.3 Work and income B.4 Work conditions B.5 Cultural aspects B.6 Health and education B.7 Native population C.1 Economic viability of the organization C.2 Quality and guest satisfaction C.3 Health and safety of guests and workers
SDG 12 Responsible Consumption and production	12.2 Buy organic, fair trade, eco-friendly toiletries and in room products. 12.5 Provide recycling bins in public areas. Ex: lobby and poolside. 12.5 Donate leftover guest amenities, old furniture, and appliances to charities. 12.5 Buy previously used or recycled-content products whenever possible.	A.6 Solid waste, effluents and emissions A.7 Energy efficiency A.8 Conservation and management of water usage A.9 Hazardous substances management B.2 Local communities B.5 Cultural aspects B.7 Native population C.1 Economic viability of the organization

		C.2 Quality and guest satisfaction
SDG 13 Climate action	13.1 Have climate risk management plan and regularly monitor the negative impact of climate change, ex: the flood, typhoon, and drought where the lodging facility located. 13.3 Carbon Footprint per tourist/night is monitored and managed during their stay. 13.3 Take action to avoid and reduce significant annual emissions from all sources controlled by the lodging facility.	A.2 Preparation and response to environmental emergencies A.4 Architecture and local construction impact A.5 Landscaping A.6 Solid waste, effluents and emissions A.7 Energy efficiency
SDG 14 Life below water	14.1 Wastewater and solid waste are disposed of to a municipal or government approved treatment system, ex: island resort never dumped waste directly on the beachside to reduce marine pollution.	A.3 Natural areas, biodiversity, flora and fauna A.9 Hazardous substances management
SDG 15 Life on land	15.2 Preserve and cultivate of local planting tree species, strengthening green landscaping and plant maintenance operations. 15.4 Ensure the conservation of mountain ecosystems and increase ecological diversity. 15.5 Being aware of, and mitigates, activity with potential to disturb wildlife and habitats around the property.	A.2 Preparation and response to environmental emergencies A.3 Natural areas, biodiversity, flora and fauna A.4 Architecture and local construction impact A.5 Landscaping A.6 Solid waste, effluents and emissions A.8 Conservation and management of water usage A.9 Hazardous substances management

Sources of tourism sustainability

Increasing sustainability requires understanding were negative (or positive) impacts of tourism derive from. In practical terms this means industry (and policy makers) must identify how much of the impact (positive or negative) comes from behaviours of different tourism stakeholders. Among typical and most frequently identified tourism stakeholders are:

- **Tourism providers (e. g. owners of accommodation infrastructure, businesses).**
- **Employees in accommodation sector (e. g. managers and operational staff).**
- **Tourists.**
- Industry suppliers (of goods and services).
- Governments.
- Non-governmental organisations.
- Industry associations, professionals and researchers.

It needs to be noted that bolded stakeholders provide direct impacts (for example, tourists purchase drinks in plastic bottles, take them to their hotel room and dispose of the bottle in the bin) of tourism, while other stakeholders hold responsibility for indirect (for example, food suppliers provide goods for restaurants in packaging which needs to be disposed of and is registered at the tourism business as recycled waste) impacts. It is that both, the source and their behaviour is vital to understand the sustainable impacts of accommodation sector.

Drivers of sustainability

Sustainability, as reflected in various sustainable behaviours of key stakeholders in the accommodation sector, is driven by a number of cognitive (e. g. beliefs, knowledge, concerns, etc.) and situational (e. g. time, travel party structure, available infrastructure, etc.) factors (drivers). In order to promote, motivate, or stimulate sustainable behaviour in the accommodation sector, it is essential to understand its drivers. In practical terms the driver reflects any psychological or situational characteristic which leads (or does not lead) to a desired behaviour.

Number of empirical evidence exist on the reasons (or causes) behind sustainable behaviour in tourism. Most of it relies on general behavioural theories in the context of general (in everyday life) sustainable behaviour well synthesised in Stern's work (2000, 2005); however, research from tourism context (e.g., Juvan & Dolnicar, 2016[4]; Juvan & Dolnicar, 2017[5]; Juvan et al., 2024[6]) demonstrates that drivers affecting behaviour in tourism may well differ from factors affecting such behaviour in everyday life.

Table 2 conceptualizes the framework for identification of drivers of sustainable behaviour in tourism. While it does not provide exact information on behaviour specific driver, it does guide approaches to identification of such drivers in real life (tourism context).

Table 2 : Drivers of sustainable behaviour in tourism

CONTEXTUAL FACTORS	PERSONAL CAPABILITIES	ATTITUDINAL FACTORS
Contextual Factors Available technology Embodied environmental impact, (e.g., energy efficiency of buildings, vehicles;	**Personal Capabilities** Financial resources Literacy Social status Behaviour-specific knowledge and skills	Personal values General environmentalist predisposition (abstract norms).

[4] Juvan, E., Dolnicar, S. (2016). Measuring environmentally sustainable tourist behaviour. Annals of tourism research. DOI: 10.1016/j.annals.2016.03.006.
[5] Juvan, E., Dolnica, S. (2017) Drivers of pro-environmental tourist behaviours are not universal. Journal of cleaner production. [Online ed.]. DOI: 10.1016/j.jclepro.2017.08.087.
[6] Juvan, E., Yuheng, Z, O., Dolnicar, S. & Grun B. (2024). On the importance of field studies for testing theory-driven behavioral change interventions in (sustainable) tourism. Journal of travel research. DOI : 10.1177/00472875241253,

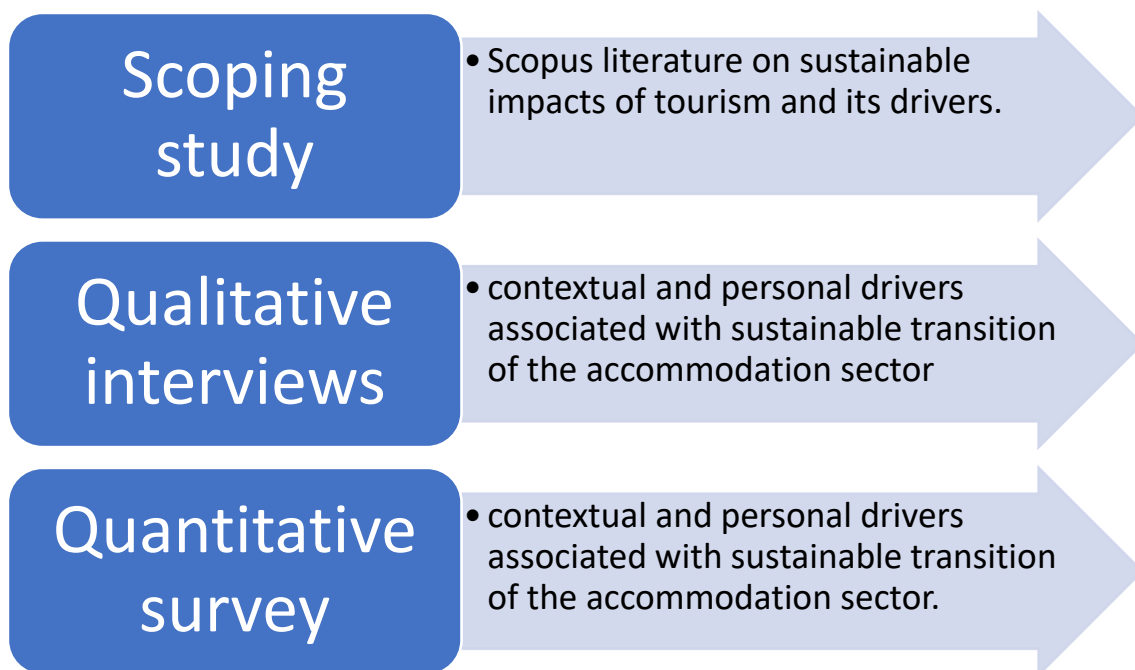| materials in consumer products. Legal and regulatory requirements. Material costs and rewards (payoffs) Convenience (e.g., of public transit, recycling Social norms and expectations.		Behaviour-specific (concrete) norms and beliefs. Non environmental attitudes, e.g., about product attributes. Perceived costs and benefits of action

Source: Stern (2005)[7]

The key aim of this document is to summarise key sustainable facets of sustainability within the accommodation sector, which will serve as a starting point to generate ISO 21401 standard supportive environment, specific for the accommodation sector.

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[7] https://www.elr.info/articles/elr-articles/understanding-individuals-environmentally-significant-behavior

2 METHODOLOGY

The methodology employed for this sustainability report is a mix of qualitative and quantitative research methods. Due to the limited resources the findings of this report have limited generalizability across wider Mediterranean region, but the report demonstrates the sustainability impact of tourism, reflects some of the key stakeholders behavioural (sustainable behaviour) drivers and shows the accommodation sector readiness level to adopt ISO 21401.

2 : methodological framework

Scoping study	• Scopus literature on sustainable impacts of tourism and its drivers.
Qualitative interviews	• contextual and personal drivers associated with sustainable transition of the accommodation sector
Quantitative survey	• contextual and personal drivers associated with sustainable transition of the accommodation sector.

The multi-faceted approach was used in order to gather comprehensive data on environmental, socio-cultural, and economic sustainability, as well as identify current issues and opportunities for improvement in order to provide insight for the development of Sustainability Protocol and Self-assessment tool.

2.1 Scoping Study

The aim of the scoping study was to investigate the existing research and commonly identified sustainability-related challenges and practices among accommodation SMEs in the Mediterranean region.

The research included identification of topic-related strategic documents within the Mediterranean region and EU accessible through the WOS and Scopus databases: strategic documents, scientific and applied studies (project reports, white papers, strategies etc.) from national databases and resources.

The literature was identified using the following keywords:

- "Sustainability" and/or "accommodation".
- "Environmental Impacts" and/or "accommodation".
- "Water"/"Electricity"/Waste"/carbon emissions" and/or "accommodation".
- Social sustainability and/or "accommodation".
- Local community impact and/or "accommodation".
- Working conditions and/or "accommodation".
- Community wellbeing impact and/or "accommodation".
- Cultural sustainability and/or "accommodation".
- Cultural sites impact and/or "accommodation".
- Heritage impact and/or "accommodation".
- Economic sustainability and/or "accommodation".
- Economy impact and/or "accommodation".
- Sustainable impacts and/or "accommodation".

The collected data was analysed focusing on key categories to organise findings systematically:

- Issue/Challenge: Identification of sustainability-related challenges categorised by environmental, cultural, social, and economic dimensions.
- Action/Behaviour: Documentation of actions and behaviours that accommodation SMEs have adopted to address the identified challenges.
- Sustainability impact: Analysis of sustainable aspects and factual evidence of the impact of actions taken on sustainability performance.
- Driver: Examination of underlying causes and drivers that contribute to the identified impacts, including internal and external factors that influence sustainability efforts.
- Recommendations: A summary outlining how the identified issues and challenges should be managed to enhance sustainability practices in the accommodation sector.

See appendix 1 for a detailed summary of the methodological framework and selected results.

2.2 Interviews

A minimum of five (5) SMEs from Italy, Greece, Slovenia, and Bosnia and Herzegovina were interviewed (total of 22) using semi-structured interviews. This method of data collection permitted open-ended responses while ensuring that the key areas of environmental, socio-cultural, and economic sustainability were covered. Thematic deductive analysis was applied to categorise insights and derive the main issues and drivers.

In contrast to the interviews conducted in Italy, Greece, Slovenia, and Bosnia and Herzegovina, Spain's contribution to this task focused on national and international sustainability certifications rather than semi-structured interviews. Spanish hotels were analysed based on their adoption of various sustainability certifications, which serve as a key measure of sustainability performance in the tourism sector. The Spanish research highlighted how certifications act as tools for differentiation and reputation-building within the highly competitive hotel market, offering valuable insights into sustainability management in Spain. Furthermore, a detailed table of nearly 100 Spanish hotels provided examples of how these certifications are applied across the country. This approach offered a complementary perspective to the interview-based methods used in other countries by focusing on the formal standards and processes that guide sustainable tourism practices.

See appendix 2 for a detailed summary of the methodological framework.

2.3 Online Survey

The third method of data collection was an online survey, distributed to a broad range of accommodation providers across the Mediterranean region, allowing for the collection of quantitative data regarding sustainability practices, challenges and perceptions of the ISO 21401 standard. The survey targeted similar areas covered in the interviews but provided a wider reach and scalability. The data collected served to identify trends and patterns of sustainability practices and barriers associated with the adoption of sustainable practices or sustainable standards such as ISO 21401, faced by accommodation providers.

See appendix 3 for a detailed summary of the methodological framework.

3 ENVIRONMENTAL SUSTAINABILITY

Each facet of the sustainability will be presented through issues (reflecting the impact or the progress towards sustainability), drivers (reflecting cognitive and situational reasons behind the impact and solutions (reflecting empirically supported approaches for ensuring more sustainable accommodation sector).

3.1 Issues

The main issues identified include **financial barriers** in adopting sustainability measures, the **lack of knowledge and skills in adopting comprehensive sustainability strategies**, and the **perceived complexity of environmental certification processes.** This leads to the lack of knowledge on actual environmental impacts of the accommodation sector, be it positive or negative, which prevents accommodation sector stakeholders (e.g., owners, employees, managers, guests) to understand actual impacts of their behaviour (e.g., investment decisions, food serving practices, eating behaviour). Nevertheless, existing literature suggests that most important environmental issues of the accommodation sector pertain to water footprint, waste footprint and carbon footprint (related to energy consumption).

From the literature analysis and interviews, it was noted that many hotel managers lack the knowledge on adopting proper sustainability measures and are often hesitant to invest in water-saving and energy-efficient technologies, due to the hight upfront cost. Renewable energy systems are underutilised and scepticism about the return of investment is common. It is also notable that extremely limited evidence exists about the market value of sustainable practices. For example, if managers or the owners have proof of evidence that sustainable path (e.g., adoption of specific environmental label) brings market advantage over competitors without such label) this would support them in the adoption of even extremely rigorous environmental standards.

Figure 3: Environmental sustainability main issues and examples
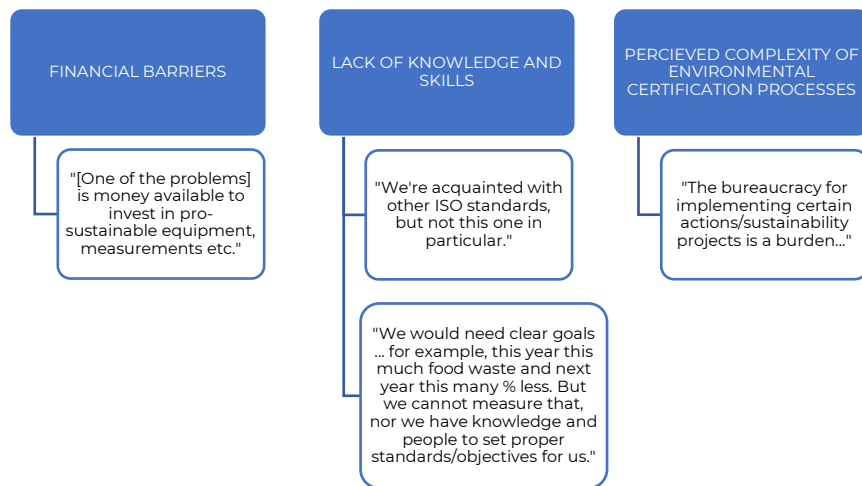
3.2 Drivers

Compliance with sustainability standards and certifications are key drivers. Certifications are increasingly seen as necessary to attract eco-conscious guests. However, interviewees have mixed beliefs towards certifications. Some of them see environmental certifications as essential, while others see them as additional regulatory and financial burden, as the process of obtaining them is perceived as complex and costly, especially for smaller hotels.

Figure 4: Environmental sustainability main drivers and examples

The above framework is well summarized with the following quote: "*I think that in terms of tourism today, it's all about an 'experience' and this is what highlights any aspect of sustainability. So, the social aspect is very important. With that comes the economic – satisfied guests return to our small hotel. They give recommendations. I'm always there for my guests as the owner. I even take them places, show them the city, etc.*"

3.3 Solutions

Financial incentives such as tax breaks or subsidies should be provided to help SMEs invest in sustainable technologies and renewable energy systems. Policymakers should work with industry experts to offer simpler and easily accessible certification processes. Streamlining the certification processes would encourage more businesses to participate. Additionally, employee training and knowledge-sharing initiatives are crucial to provide SMEs with access to best practices and other resources on sustainability.

4 SOCIO-CULTURAL SUSTAINABILITY

4.1 Issues

The main issues include **preserving cultural heritage and fostering positive relationships between tourism-service providers and local populations**. Many accommodation providers struggle with balancing the need to attract tourists with the responsibility of minimising negative social impacts. Smaller hotels often face difficulties due to limited financial resources and staff.

Gender inequality was highlighted as another significant issue within the industry, particularly in the culinary profession, where female chefs face challenges such as unequal pay, limited career advancement, and difficult working conditions. These inequalities reflect broader societal challenges and hinder the potential of a diverse workforce within the hospitality sector.

Figure 5: Socio-cultural sustainability main issues and examples
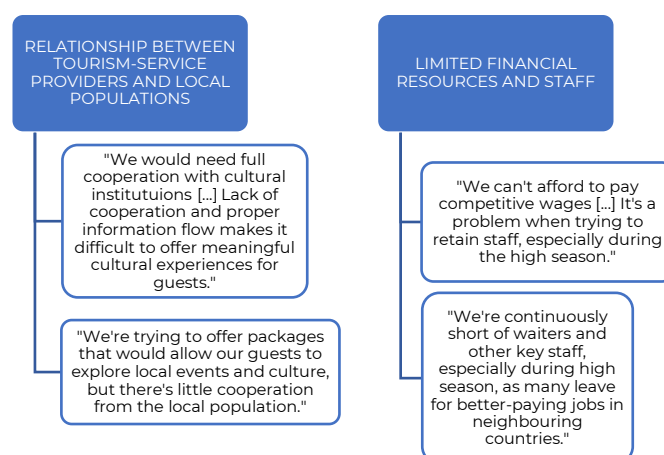
4.2   Drivers

Key factors pushing for social sustainability are **corporate social responsibility (CSR)** and **guest expectation for authentic cultural experiences**. These expectations encourage accommodation providers to adopt **more responsible tourism practices,** such as sourcing locally, supporting cultural preservation projects, and promoting cultural education among guests.

Another important driver is the **increasing recognition of the business benefits** that come **with socio-cultural sustainability.** Hotels that engage with local communities and offer authentic cultural experiences tend to enjoy higher guest satisfaction and loyalty. This not only enhances their brand reputation but also provides a competitive edge in a market where eco-conscious and culturally aware travellers are growing in number.

Figure 6: Socio-cultural sustainability main drivers and examples

CORPORATE SOCIAL RESPONSIBILITY

"We do our best to minimise waste and use local suppliers where possible. Our guests appreciate this, and we see it as part of our responsibility to the community and environment."

GUEST EXPECTATIONS

"Our guests appreciate when we provide something different ..."

"At check-in, our guests are tolk about this project [seeding forest] and they too can donate money if they wish. We find that guests appreciate these small initiatives."

BRAND REPUTATION

"We are part of a larger brand, and maintaining the standards of sustainability is not just important for us, but for the reputation of the entire brand."

4.3   Solutions

Hotels and other accommodation providers should focus on **engaging with local communities** through initiatives such as sourcing local products, supporting local artisans, and preserving local traditions and heritage. **Government incentives**, such as tax breaks or subsidies, could be introduced to encourage businesses to invest in local sourcing and cultural preservation efforts. **Promoting responsible tourism practices** through guest awareness campaigns can help reduce the socio-cultural impact of tourism. By **educating guests** on the importance of preserving local cultures and engaging in respectful tourism, accommodations can contribute to minimizing the negative social impacts of tourism while enhancing the guest experience.
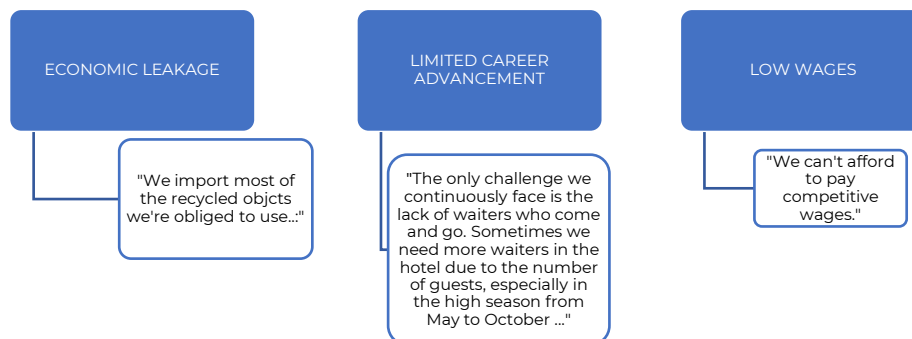
5 ECONOMIC SUSTAINABILITY

5.1 Issues

Economic sustainability in tourism is highly under-researched, especially in the accommodation sector. Divergent opinions exist on its definition: some focus on profitability, while others emphasise broader socio-economic benefits like fair wages, job security, and reduced inequality.

The scoping study exposed **economic leakage** as one of the most important issues. Revenue lost to foreign-owned hotels and international suppliers **weakens the ability of local communities to benefit from tourism** and **undermines economic sustainability**. Interviewees revealed frustration among accommodation managers about the dominance of foreign-owned hotels, which often prioritise international suppliers over local businesses.

Research revealed that tourism does contribute to regional job growth, however, there is a concern about limited career advancement and low wages, especially in lower-skilled positions. Some managers acknowledged the challenge but noted that the sector's seasonality made it difficult to offer stable, high-paying jobs year-round.

Figure 7: Economic sustainability main issues and examples

ECONOMIC LEAKAGE

"We import most of the recycled objcts we're obliged to use..."

LIMITED CAREER ADVANCEMENT

"The only challenge we continuously face is the lack of waiters who come and go. Sometimes we need more waiters in the hotel due to the number of guests, especially in the high season from May to October ..."

LOW WAGES

"We can't afford to pay competitive wages."

5.2 Drivers

The study found that the hotels who implemented sustainable practices gained a competitive advantage by **enhancing their brand reputation** and **attracting eco-conscious travellers** and **improving customer loyalty**. Several interviewees from larger hotel chains mentioned that sustainability initiatives had **improved guest satisfaction**, with many guests expressing a preference for eco-friendly accommodations.

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┌──────────────┐                    ┌──────────────┐
│    BRAND     │                    │    GUEST     │
│  REPUTATION  │                    │ SATISFACTION │
└──────────────┘                    └──────────────┘
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"We believe it will improve our standing with eco-conscious travelers and boost our reputation in the long run."

"[...] This not only aligns us with global sustainability standards but enhances our brand reputation."

"We are continuously thinking of products to provide for our guests .[...] I think this is why they return or recommend our place .."

"Many of our guests ask us about local traditions, cuisine, and culture, so we've tried to create packages that help them connect with the local community and cultural heritage."

5.3 Solutions

To reduce economic leakage, promoting local ownership of tourism businesses and sourcing local products is essential. **Government incentives or tax breaks** could encourage more hotels to source locally. **Educating businesses** on the long-term cost savings of energy-efficient technologies can further encourage their commitment to sustainability.

6 SUSTAINABILITY BASELINE

6.1 Spanish Model

The dataset of tourism certifications in the Spanish hotel sector provides an insight into certification trends across various hotel categories, where several trends emerge:

Five-star hotels are leaders in the adoption of tourism certificates and are most likely to have multiple certifications. This category shows the highest uptake of labels like Biosphere and Travel Life, which include a broad range of criteria, covering environmental, social, and economic sustainability dimension. This trend reflects comprehensive sustainability in higher category hotels. They also tend to be located in tourist-heavy regions like the Canary Islands and Balearic Islands.

Four-star hotels also show a significant engagement in the adoption of sustainability certifications, although with less variety than five-star hotels. The most common certifications in this category are Travel Life and national quality certification Marca Q de Calidad Turística, focusing on service quality and sustainability.

Three-star hotels and lower tend to have lower certification trends but are emerging participants. Those that do pursue certifications, focus on basic service quality and sustainability standards. Marca Q de Calidad Turística and

ECOLABEL are the most common in this category, while there is no extensive adoption of comprehensive sustainability certifications.

6.2   Online Survey Data

The quantitative data collected from the online survey provide an overview of the current extent of implementation of various sustainable practices across accommodation SMEs in the Euro-Med Region. Understanding the current situation of sustainability practices in the sector is crucial for identifying key areas of strength and gaps in implementation in order to outline future recommendations.

In the first part of the survey, the participants were asked to mark the sustainability practices implemented in their business and rate the implementation level of certain practices based on how well they are implemented within their organisation. 85.8% of respondents consider sustainability important to them. This importance is further evident in 80% of businesses rating their current implementation of sustainability practices at similar levels, which suggests a strong dedication to sustainability.

Further, SMEs were asked to report on a scale from 0 to 6 for how well certain practices are implemented within their business. The results are presented in the table 3 and are categorised in two groups: low implementation level (0-2) and high implementation level (4-6). Mid-range responses (3) are excluded to ensure that the results clearly indicate a lower or higher degree of implementation.

Over half responding SMEs (62.6%) have implemented a sustainability strategy, action plan or policy. Additionally, 57.3% have an environmental label or certificate, and of these, 91.7% have a designated person or team responsible for sustainability. This may be due to requirements of most comprehensive certifications that promote a more formalised approach (e.g. sustainability coordinator) to sustainability.

Table 3: Level of implementation of Sustainability Practices

0-not implemented at all; 6-extremely well implemented	0-2	4-6
Sustainable procurement (e.g., buying local, suppliers with green labels).	12.4%	74.3%
Encouraging and raising supplier awareness to implement sustainable practices of production and supply through meetings, lectures and information tools (e.g., written instructions/recommendations).	26.7%	55.2%
Facilities for self-production (e.g., garden, herd for meat, chickens for eggs, herbal garden, etc.). Collaboration with local community (e.g., DMO, NGO's, societies, clubs)	66.7%	28.6%
Ensuring and promoting gender equality within and outside your business/ organization.	25.7%	59.5%
Ensuring and promoting equal rights for minorities and vulnerable groups.	10%	77%
Legal compliance to laws, regulations concerning wildlife harvesting and trade.	14.2%	75.2%
Use of electricity efficient equipment/infrastructure.	19.%	73.8%
Use of water efficient equipment/infrastructure (e.g., water saving tap heads, double toiled sinks, etc).	6.7%	81.9%
Use of eco/bio cleaning detergents and supplies.	11%	75.7%
Using promotional tools encouraging guests to support sustainable practices.	11.4%	72.9%
Renewable construction materials.	15.2%	65.7%
Environmentally efficient design.	26.7%	48%
Multiple use (suitable for reuse) equipment and materials (e.g., soap dispensers, storage containers, furniture, etc.).	22.4%	52.4%
Automated-sensor based lighting/heating/cooling system.	9.5%	77.6%
Avoidance of single use materials (e.g., plastic table ware, plastic cutlery, single packaging).	23.8%	64.8%
Renewable energy (e.g., solar panels, renewable electricity from supplier, eco-labelled electricity).	9.5%	79%
Ensuring accessibility for people with disabilities (customers, guests, employees, etc.).	28.1%	62.4%
Sustainable planting/gardening (including local endemic plants, water saving irrigation system, etc.).	11.4%	81.9%
System for monitoring water use, at the resource (e.g., per room, per kitchen, per common areas, etc.).	32.9%	54.8%
System for monitoring electricity use, at the resource (e.g., per room, per kitchen, per common areas, etc.).	43.8%	41.9%
Ensuring water quality and safety by implementing regular controls.	38%	44.3%
Ensuring procedures to evaluate satisfaction levels and complaints from local communities.	14.3%	77.6%
Support for local community social responsibility initiatives and projects.	20%	60.5%
Automated monitoring of environmental performance (e.g., water use, electricity use, etc.).	16.2%	67%
Support local employment opportunities.	31.9%	47%

Local art/craft/culture is reflected in design, furnishings and services.	6.2%	84.8%
Conducting education activities with the local community through site visits, lectures, competitions, practices promotion in the local media (e.g., newspapers, radio).	39.5%	44.8%
Preservation of own natural area by implementing conservation practices.	29%	56.7%
Raising guest awareness through the website, reservation system, check-in, accommodation facilities, social areas, (e.g., verbal information, displays, signs, brochures or guides).	20.5%	63.8%
Collaborating with other accommodation facilities and other actors for sustainable development of the destination, (e.g., collective purchasing, waste collection and social activities).	31.9%	50.5%
Training employees on sustainable behaviour (e.g., meetings, workshops, courses, lectures, seminars, conferences, volunteer programmes.	18%	64.3%
Use of certified equipment for less noise or gas emission.	36.7%	45.7%
Thermal insulation of walls, ceilings and windows.	21.9%	65.2%
Monitoring of overall sustainability performance.	27%	53.3%
Reporting on overall sustainability performance to customers, business partners, local community.	39%	47%

The most well-integrated practices refer to waste management and water efficiency. 92% respondents adopted waste handling infrastructure, such as waste separation bins, wastepaper balling machines, etc. 63% of the responding SMEs have established community-based or their own sustainable water treatment systems. 50.7% respondents have installed sensor-based water-saving devices on toilets or taps, while 56% have implemented systems for ensuring regular checks on water and electricity leakage.

Many SMEs have set clear objectives on reduction of electricity consumption (75%), water usage (74%), and waste production (72%). The number of respondents with clear objectives on reduction of noise due to operations is a bit lower (57.5%), as well as those with clear objectives on reduction of greenhouse gas emissions (51%). Setting measurable goals is essential for effective sustainable management, as it enables the businesses to track their progress over time and make adjustments when needed. A lower number (36.9%) prohibit artificial feeding of animals, to prevent their domestication.

6.3.1 Environmental Sustainability

High Implementation
The answers reveal clear high adoption of certain practices like water-saving equipment (81.9%), automated systems for lighting and heating (77.6%), and renewable energy (79%), which indicates a strong commitment to water and energy conservation. Another widely adopted practice (81.9%) is sustainable planting/gardening.

Moderate to Low Implementation
Automated environmental monitoring of environmental performance is fairly common (67%), though specific monitoring at the source for water (54.8%) and electricity (41.9%) needs improvement to enhance resource use management.

Only 28.6% have self-production facilities (e. g., herbal gardens, chicken coops ...) reflecting limited on-site resource generation.

6.3.2 Economic Sustainability

High Implementation
The results show a high level of sustainable procurement (74.3%), supporting local and environmentally friendly suppliers, although only 55.2% actively engage in raising supplier awareness to implement sustainable practices of production and supply.

Moderate to Low Implementation
Only 47% report supporting local employment, and 50.5% collaborate on regional sustainability efforts, suggesting opportunities to strengthen local economic impacts.

Systematic monitoring (53.3%) and public reporting of sustainability performance Reporting on overall sustainability performance to customers, business partners, local community remain limited (47%), indicating room for enhanced transparency and accountability.

6.3.3 Socio-cultural Sustainability

High Implementation
Most SMEs (84.8%) incorporate local culture in their design, 77.6% collect feedback from communities, and 63.8% raise guest awareness on sustainability.

Moderate to Low Implementation

Education with the local community (44.8%) and social responsibility initiatives (60.5%) see moderate uptake. Collaborative social activities with other facilities (50.5%) represent a promising, though underdeveloped, area for deeper community partnerships and employee training on sustainable practices (64.3%) could be expanded for improved engagement.

7 ISO 21401 TRANSITION PATHWAY

This chapter assesses the readiness of Euro-Mediterranean accommodation SMEs to adopt the ISO 21401 standard based on the extent to which certain practices and requirements are already implemented in their businesses. The data is grouped into two categories: low implementation level (0-2) and high implementation level (4-6). Mid-range responses (3) are excluded to ensure that the results clearly indicate a lower or higher degree of implementation.

Table 4: Level of implementation of ISO 21401 requirements

	0-2	4-6
Identification of risks to prevent and attend to accidents and emergencies.	6.2%	83.9%
Identification of actions to mitigate the negative environmental impacts of your business.	16.1%	68.7%
Preventing the introduction of exotic populations of wildlife.	36%	51.6%
Adapting the architectural design and the materials used according to the environment concerned.	24.2%	61%
Avoid the use of building materials with a major negative environmental impact.	21.8%	64.9%
The architecture of construction considers the safety of workers and guests.	9.5%	81%
Use of native vegetation to the fullest extent possible.	27%	59.2%
Circular economy model to reduce, reuse or recycle solid waste.	18.5%	64.9%
Planning and implementation of measures to minimize emissions of gases, light, ozone and odour from installations, vehicles, equipment.	25.6%	55%
Plan and implementation of measures to minimize energy. consumption, particularly from non-renewable energy sources.	19.9%	66.8%
Identification of operational risks and opportunities.	9%	78.7%
Development and clear communication of sustainability objectives.	18.5%	61.6%
Planning and monitoring attainment of sustainable objectives, with clear objectives, correction activities and responsible persons.	20.4%	58.3%

Implementation of regular educational/training activities for improving employee's competences for sustainable operations.	19.9%	61.6%
Ensuring that sustainability policies and objectives are established and are compatible with the strategic direction of the organization.	18.5%	59.7%
Employment, to the greatest extent possible, workers (employees, subcontractors or freelancers) from local or regional communities.	10%	78.2%
Professional training of local people to provide services and supply inputs or complementary activities to the company.	20.8%	62%
Ensuring that internships or apprenticeships are not being misused in an attempt to avoid meeting obligations to employees.	10.9%	69.7%
Development of a business plan, even if simple, updated where necessary, to demonstrate economic viability of the business/organization.	8.5%	73%
Support to programmes for promoting tourist safety and security.	8.5%	72.5%

High Readiness Areas

A significant number of SMEs have adopted measures for risk identification and emergency preparedness (83.9%). 81% prioritise worker and guest safety in construction design, and 78% have assessed operational risks. Local hiring practices are at 78.2%. Efforts to maintain economic viability through updated business plans (73%) and participation in tourist safety programs (72.5%) underscore a commitment to long-term sustainability and responsible tourism.

Moderate Readiness Areas

68.7% have taken action to reduce negative environmental impacts, while 64.9% have adopted circular economy practices, such as reducing and recycling waste. While 66.8% have plans to minimize energy consumption, only 55% actively work to reduce emissions from installations and equipment, indicating potential for more comprehensive emission management.

64.9% have committed to environmentally responsible building materials, showing potential for further alignment with ISO 21401 criteria.

Moderate levels of readiness are observed in setting and communicating sustainability objectives (61.6%).

While local hiring is relatively high (78.2%), only 62% provide professional training to local workers, and 69.7% ensure ethical use of internships and apprenticeships. Enhancing training and ethical employment practices could further support community development.

Low Readiness Areas

Although 59.2% use native vegetation, only 51.6% actively prevent the introduction of exotic species, indicating a partial alignment with biodiversity conservation goals. Fewer SMEs have detailed planning and monitoring processes (58.3%) for sustainability goals, highlighting the need for more systematic tracking and accountability in their sustainability efforts.

The survey results suggest a promising level of preparedness among accommodation providers, especially in risk management, safety, and operational sustainability. However, areas such as emissions reduction, biodiversity, and structured sustainability monitoring would benefit from additional support.

7.1 Barriers to Adoption of ISO 21401

The survey also presented several barriers that commonly prevent businesses to adopt the ISO 21401 standard. Respondents were asked to indicate how each barrier pertains to their business on a scale from 0 (not at all) to 6 (completely). The results are grouped in two categories: low pertinence (0-2) and high pertinence (4-6). Mid-range responses (3) are excluded to ensure that the results clearly indicate a lower or higher degree of pertinence.

Table 5: Barriers to adoption of ISO 21401

	0-2	4-6
We do not have enough staff to support the implementation of ISO 21401 standard.	20.9%	62.6%
We know very little about the benefits of adopting ISO 21401 standard.	19.9%	65.9%
Implementation of ISO 21401 standards is too expensive.	19.9%	57.3%
Our company is too small and does not fit requirements of the ISO 21401 standard.	37%	36.5%
ISO 21401 standard is too rigid and would ignore specifics of our company.	34.6%	37%
Costs of maintaining/renewing ISO 21401 standard are too high.	24.2%	51.7%
We do not have enough time to implement ISO 21401 standard.	28.4%	54%
Auditing processes are risky because they require disclosure of potentially private data.	45.5%	27%
ISO 21401 standard has very limited value to our customers/guests.	33.2%	40.8%
Adoption of ISO 21401 standard limits our ability to secure suppliers.	40.8%	29.9%
We know very little about how to start the ISO 21401 standard adoption process.	26%	58.3%
Auditing process requires too much paper work.	20.4%	59.2%
We do not have proper monitoring tools to prove sustainable performance.	29.9%	53.6%
Sustainability is not at the core of our business.	64%	23.7%
Key performance indicators for many of the sustainability criteria are too vague.	36.5%	28%

Limited knowledge and staffing: A significant number of respondents (62.6%) indicated that insufficient staff is a barrier, which highlights the need for sufficient human resources to support the implementation of the ISO 21401 standard. Additionally, 65.9% reported limited knowledge about the benefits of adopting the standard, suggesting that education and awareness-raising are crucial.

Cost concerns: Over half of the participants recognises the costs associated with the implementation (57.3%) and maintaining (51.7%) the standard as

barriers. This indicates the perception that the financial contribution may outweigh the perceived benefits, showing the need for financial incentives or other affordable solutions to encourage the adoption.

Time and bureaucracy: 54% indicate that the ISO 21401 standard adoption is too time-consuming and 59.2% believe the auditing process requires too much paperwork.

Lack of monitoring tools: 53.6% of SMEs reported the lack of proper monitoring tools to demonstrate sustainable performance. This points to a gap in resources and tools necessary for effective sustainability tracking, which is essential for ISO 21401 compliance.

Company size and rigid standards: 37% of respondents think that their business is too small to meet the standard requirements, and 34.5% believe the standard would overlook their specific needs due to its rigidness.

7.2 Support for ISO 21401 Adoption

One of the objectives of the survey was also to determine the importance of certain actions in facilitating the adoption of the ISO 21401 standard among accommodation SMEs. Participants were asked to rate the importance of each action on a scale from 0 (not at all) to 6 (extremely important.) The results are grouped in two categories: low importance (0-2) and high importance (4-6). Mid-range responses (3) are excluded to ensure that the results clearly indicate a lower or higher degree of importance.

Table 6: Importance of actions to facilitate the adoption of ISO 21401

	0-2	4-6
External auditor provides a full staff support for the implementation of ISO 21401 standard.	7.1%	80.6%
Benefits of ISO 21401 for your stakeholders (e.g., customers, suppliers, employees) are proved by credible evidence (e.g., reduced operational costs, improved quality of services).	10.4%	77.3%
Auditing costs of ISO 21401 would not exceed an average monthly wage of a middle management employee at your business/organization.	9.0%	74.9%
ISO 21401 standard requirements are fully adjusted to the size and type of your business/organization.	10.9%	76.8%
ISO 21401 standard renewal costs do not exceed half of the average monthly wage of a middle management employee in your business/organization.	12.8%	71.6%
ISO 21401 auditing team fully adjust to the time availability of the staff at your business/organization.	10.9%	75.4%
Information collected during auditing is fully anonymized and confidentiality statement of auditors is provided.	15.2%	65.9%
Requirements on sustaining sustainable supply chain take into consideration the market situation (e.g., sustainable suppliers are accounted for only if they exist).	8.1%	72.5%

Free consultation (in person and online) is provided to educate on how to initiate the ISO 21401 standard adoption process.	9.0%	78.2%
Focus of auditing process on paper work/documentation is substantially reduced, to a minimum.	6.6%	78.2%
Governmental or other type of funding is available to support the implementation of the monitoring tools/processes.	10.0%	79.1%
Sustainability becomes a regulated mandatory requirement of any business organization.	8.1%	70.6%
Key performance indicators for each criterion are adjusted to the size and type of the business organization.	8.5%	78.7%
An online self-assessment tool is provided for your business/organization to enter details on ISO 21401 compliance at your time and staff availability.	8.5%	74.4%
An online platform is provided where your business/organization can monitor sustainability performance and benchmark the performance with other similar businesses/organizations (anonymity is ensured).	8.5%	74.4%

A large percent of respondents (80.6%) rated auditor support as extremely important, indicating the need for comprehensive support throughout the process. Credible evidence of benefits of ISO 21401 implementation is also seen as important (77.3%).

Financial factors also remain essential, indicating that the auditing (74.9%) and renewal (71.6%) costs should not exceed the average monthly wage of a middle management employee. The need for governmental or other funding (79.1%) indicates a desire for financial assistance to support the implementation of monitoring tools and processes. Moreover, 78.2% believe that reducing the focus on paperwork and documentation during audits would streamline compliance efforts.

Respondents also demonstrated a strong preference (75.4%) for auditing that could adjust to their staff's availability. Free consultations and educational resources are also seen as vital (78.2%). A large majority of respondents (76.8%) stressed the importance of having ISO 21401 requirements tailored to the specific size and type of their businesses. The implementation of an online platform for monitoring sustainability performance is also seen as essential (to over 70% of respondents.

8 CONCLUSIONS

For the conclusion, we list the most important takeaways which should serve as a guideline for the project consortium and other parties interested in increasing the sustainability of the accommodation sector. The takeaways are relevant not necessarily only within the context of promoting the increase in environmental certifications uptake but also for the general improvement of the sustainability of the accommodation sector.

1. The accommodation sector must improve its ability of reliable, up-to-date and universally comparable **measurement of the sustainability impacts**.

2. The measurement methodology must include actual impacts, which must be **source, behaviour and driver specific**.

3. Environmental standards must **adopt a friendlier award approach** following the specifics of the extremely diverse accommodation sector world-wide. This will require adjusting the requirements and the adoption process to fit the size, service portfolio and organisational structure of specific accommodation providers.

4. **Data collection and analysis supporting environment (tool)** is needed allowing accommodation providers (and other interested parties) to access relevant reports and insights on the sustainable transition, along with standardised benchmarking at inter- and intra-sectoral as well as national and international level.

5. **An educational ecosystem must be established** to support accommodation providers (and other interested parties) in accessing and adopting knowledge about sustainable transition, the advantages and processes of sustainable standards adoption and communication.

6. **Market communication tools are needed** to improve the knowledge of the consumers (tourists, guests, travellers) about the benefits (personal, social and environmental) of using (booking) sustainability-certified accommodation providers.

7. **Sustainability adoption supporting schemes are needed** at governmental level, to help accommodation sector in their sustainable transition pathway; especially in the early stage of their sustainability path.

8. **A collaboration ecosystem** encouraging partnerships, networking and knowledge exchange between accommodation providers (international and intersectoral) would build "the courage" of accommodation providers to initiate their sustainable journey.

9 APPENDICES

Scoping study framework

This section provides selected results of the scoping study.

Aim: In the context of accommodation SME's in the Mediterranean region, we aim to identify key:

1. Sustainability Issues/challenges,
2. Actions proven to strengthen the sustainable transition and
3. Drivers effectively supporting successful sustainable transition.

Methodology

Sample	Topic related strategic documents within the MED region and EU. Scientific studies accessible through WOS and Scopus database; applied studies (e.g. project reports, white papers, Strategies, etc.) from national databases and resources

Data collection	Literature accessible using the following keywords:
	• "Sustainability" and/or "accommodation"
	• "environmental Impacts" and/or "accommodation"
	   ○ "water"/"Electricity"/Waste"/carbon emissions" and/or "accommodation"
	• Social sustainability and/or "accommodation".
	   ○ Local community impact and/or "accommodation"
	   ○ Working conditions and/or "accommodation"
	   ○ Community wellbeing impact and/or "accommodation"
	• Cultural sustainability and/or "accommodation".
	   ○ Cultural sites impact and/or "accommodation"
	   ○ Heritage impact and/or "accommodation"
	• Economic sustainability and/or "accommodation".
	   ○ Economy impact and/or "accommodation"
	• Sustainable impacts and/or "accommodation"

Data analysis	Content analysis focused on key categories: • Issue/Challenge (environment, culture, social, economy.) • Action/Behaviour; • Sustainability impact: field (sustainable aspects) and actual Facts; • Driver: causes of Impact • Recommendations: summary of how the Issue/challenge should be "managed" Using the content analysis template. Format and list references in a separate sheet, using template below.
Submission deadline	April 30th 2024
Authors/tasks	• analysis of economic sustainability • analysis of social sustainability • analysis of environmental sustainability

Content analysis template

Reference	Context	Issue/ Challenge	Action/ Behaviour	Impact		Driver
				Sustainability impact	Facts	
Juvan et al., (2023)	Hotels, Restaurants	Waste volume	Total waste production (aggregate, per segment)	Resource use, carbon emissions	Hotel average 118,141 kg (year), restaurants 27,804 kg (year); mixed municipal waste, bio waste and edible oils prevail. Hotels and restaurants produce substantially more mixed municipal waste, than other sectors; restaurants substantially more bio-waste and edible oils. Five different segments exist within HORE sector.	Organization size; service portfolio; employee behaviour.
Recommendations: HORE sector segment specific actions are needed to reduce waste. Waste reduction strategies involve supply/work process related identification of causes; reducing environmental issues of unpreventable waste require establishment of methods of effective incineration, animal-fed approaches and composting.						
Antonova et al. (2023)	Hotel Canary Island, EMAS certified, resort beach type	Water consumption (2007-2019)	Total water use (aggregate, avg. per night)	Water use	341l, per guest night (total), 240l per guest night (without garden), gardens on average present 31,2% of total water consumption.	Occupancy rate and guest nights lead to reduced water consumption per guest night, substitution of taps (single hand tap) and comprehensive renovations (including new bathrooms and water-saving shower

					s installed, elimination of bathtubs and bidets) of rooms lead to increase in water use. Occupancy does not significantly affect total water consumption.
Recommendations: although unclear evidence exists on the drivers of water saving (total and avg. per guest night) in hotels authors recommend hotels to adopt sustainability measures, because they do lead to total water consumption over a longer period of time.					
Camilleri-Fenech et al. (2020)	5* hotel in Malta (252 residential rooms (550 single beds), 6 meeting rooms and 3 restaurants	Food waste	Total food waste, per meal type, restaurant type and total other waste in rooms	Food waste, Waste	0,27kg of total room waste per guest/day; 0,1kg of plate waste per breakfast per guest/day; 0,21kg of plate waste per a la carte lunch, per gust/day; 0,16 of plate waste per a la cart dinner, per guest/day, 0,48 kg of plate waste, per buffet dinner, per guest/day. Elimination of side plate reduces plate waste, buffet service increases plate waste, providing plastic cups increases plastic waste in rooms (and straws)
Recommendations: development of pro-environmental initiatives requires involvement of all clients involved in processes where environmental harm occurs. Through this involvement clients (e.g., employees, guests, managers, suppliers) develop initiatives which would support their behavioural shift. Adaptation (nudge) of the default (contextual factors) options to reduce environmental costs (e.g., opt out room clean, removal of side dish plate) is also a promising avenue.					
Dinarès and Saurí (2015)	262 hotels in Barcelona	Water consumption (1999-2008)	Annual water consumption in relation to drought	Water use	Higher consumption in higher categories due to more complex structures and services: avg. 1866 m^3 for 1H* to 32,212 m^3 for 5H* in 2008. General decrease in Monitoring water use, cost savings, application of water-saving devices in taps, placement of

					higher categories: -2% in 4H* and -16.4% in 5H* from 1999 to 2008 (drought periods). 1H* to 3H* show mixed results, with some reductions in mean water consumption but not as consistently as the higher categories.	notes at key water consumption points, shower heads and flushing toilet systems, employee involvement in water management, training personnel in efficient water use, reuse of towels by guests.
Recommendations: Identification of specific water consumption patterns, conservation practices and motivations of different types of hotels. Implementation of policies that promote cost-cutting and other measures for long-term benefits, e.g., financial, insurance and gradual repayment incentives. Different public policies should target different types of hotels. Public authorities could use social pressure (promoting water conservation during drought, publishing data about water consumption in hotels etc.).						
Perez et al. (2016)	4* hotels in the Canary Islands	Energy and water consumption (2007-2015)	Baseline consumption, use of desalination plants (SWROP)	Energy and water use, carbon emissions	Hotels contribute over 20% of tourism emissions and approx. 1% of global energy consumption emissions. Consumption persists despite low occupancy. Desalination plants increase energy consumption, and DHW accounts for 22% of total energy use. Renewable energy is underutilized.	Occupancy rates, maintenance practices, irrigation, water production, desalination plants
Recommendations: Hotels should focus on improving desalination plant efficiency, adopt renewable energy systems for DHW, and introduce better sectorization of equipment to reduce consumption during low-occupancy periods.						
Rico et al. (2020)	22 hotels in Benidorm, Spain	Water consumption (2005-2014)	Water conservation measures vs. annual water consumption m³/room and	Water use	Total water consumption in Benidorm 2005-2014 decreased	Main motivation: International standar

			avg. water consumption by guest (litres/day)		around 11%; 5% for hotels. 5* hotels +5%, 4* hotels +2%, 3* hotels -21,5%. Avg. consumption 225 litres/guest/day for 3* to 276 litres/guest/day for 4 and 5*. 3 out of 13 conservation measures were statistically significant in reducing water consumption.	ds (ISO 14001), reducing operational costs, environmental awareness among hotel managers. Factors: Hotel size, category, climate, occupancy, formal protocols on water conservation, awareness campaigns, graphic signs in rooms, reuse of towels & bedding. Toilets with double discharge systems, localized irrigation, added amenities (pools, spas, gardens) = higher consumption.

Recommendations: Careful planning when adding water-intensive amenities like pools, spas, gardens. Even if equipped with efficient technologies, these facilities can increase water use. Incentive programs for hotels that demonstrate significant water savings (esp. higher categories, where consumption is higher) and guest awareness campaigns on responsible water usage. Adoption and promotion of environmental certifications (ISO 14001).

Pablo-Romero et al. (2017)	Accommodation and food & beverage service sectors in 50 Spanish provinces	Relationship between tourism growth and electricity consumption (1999-2013)	Electricity consumption in MWh per thousand inhabitants, overnight stays per thousand inhabitants	Electricity consumption, CO_2 emissions	Increases in GDP per capita and overnight stays increase electricity consumption in the hospitality sector. The highest electricity consumption elasticity seen in tourist-heavy provinces like Balearic Islands, Tenerife, and Las Palmas. Less touristic provinces like Jaen, Badajoz, Ciudad Real, and Biscay show lower elasticity. Increased tourism consistently leads to higher electricity use.	GDP per capita, improved infrastructure and services, climate, mass tourism, building efficiency
Recommendations: Policy measures to control increases in electricity use, measures to improve efficiency in buildings related to the hospitality sector. Displacement of tourists from provinces with a larger number of visitors to provinces with a low tourism level may be beneficial. Promotion of energy efficient measures, renewable energy systems and development of energy management capabilities. Technical systems for the use of solar energy may be convenient (esp. in areas with sun and beach tourism).						
Pablo-Romero et al. (2017)	Hotels and restaurants in 11 EU countries	Relationship between tourism growth and electricity consumption (2005-2012)	Electricity consumption in MWh per thousand inhabitants, overnight stays per thousand inhabitants	Electricity consumption, CO_2 emissions	The elasticity of electricity consumption per capita with respect to tourism ranges from 0.001 (Germany) to 0.077 (Malta). Countries like Malta, Cyprus, Spain, and Italy showed higher elasticity values, meaning tourism significantly impacts their energy use. Lower temperatures increase electricity consumption for heating,	Climate, economic growth, financial cost of implementing energy efficient measures

					higher temperatures (linked to climate change) are expected to increase cooling demand (potential 248% rise in Greece and 25% rise in Lisbon). Income growth also raises electricity consumption in the sector.	
Recommendations: Energy efficiency measures to control increases in electricity use. Financial support to promote initiatives in energy efficiency. Promotion of renewable energy systems to control CO_2 emissions.						
Garay et al. (2016)	SMEs in EUROPARC protected areas in Europe	Non-homogenous sustainability motivations and practices	Sustainability practices categorized according to motivation: Lifestyle, Business and Legitimization profiles	Resource consumption reduction, waste reduction, potential increase in customer loyalty – economic sustainability	- Lifestyle Group: sustainability as routine; not linked to financial performance. - Business Group: Cost reduction focus; scepticism about sustainability's financial benefits. - Legitimization Group: Image enhancement through social norm compliance.	Economic goals, personal values, societal legitimization. Motivations: Protection of the environment, improvements in society, lifestyle, cost savings, image and marketing benefits, customer demand, legal requirements. Barriers: lack of money, time, knowledge, and motivation, customers not asking for it.

Recommendations: One-size-fits-all approach is ineffective. Segment SMEs based on sustainability motivations and tailor support accordingly. Encourage SMEs to communicate their sustainability more effectively to attract customers. Marketing sustainability can enhance brand reputation and customer loyalty. Conduct qualitative and longitudinal studies to explore the gap between self-reported sustainable practices and actual behaviours.					
Diaz-Farina et al. (2023)	Hospitality industry, Puerto de la Cruz (Tenerife)	Waste generation, food waste mitigation strategies	Mixed waste and food waste generation influenced by occupancy rates and food service types (buffet vs. à la carte)	Environmental footprint	The elasticity of the number of rooms (Ln(HOR)) is 0.5938, leading to an increase in mixed waste generation by 0.002 bins/week for every 1% increase in occupancy. The marginal effect of structural services shows a significant increase of 9.55 bins/week for a 1% increase in hotel or apartment size. Establishments that provide employee training reduce mixed waste generation by 34.5%. Those with environmental certification generate 25.7% less mixed waste. A 1% increase in half-board meal plans raises mixed waste generation by 0.28%, while all-inclusive plans increase it by 0.20%. The marginal effect of breakfast alone is the highest, contributing 180 g of waste per guest.	Management practices (employee training, waste measurement), guest behaviour, establishment type (hotels vs. apartments), stakeholder pressure and regulatory frameworks

				A 1% increase in occupancy raises mixed waste generation by 0.89% in apartments and 0.60% in hotels. The coefficients for larger establishments suggest diminishing returns on mixed-waste generation, with more significant impacts observed in hotels compared to apartments.	

Recommendations: Implementation of employee training programs, support of environmental audits and certifications. Implementation of a pricing structure that rewards waste reduction to incentivize more sustainable practices. Conduction of further research to estimate waste generation and analyse its determinants accurately to refine waste mitigation strategies. Design randomized control trials to evaluate the effectiveness of different training programs and interventions aimed at reducing waste. Encouraging behaviour change through targeted interventions – social reference nudges could be valuable in influencing kitchen staff and guests towards more sustainable waste practices.

Kronenberg, Fuchs, (2021)	Accommodation and food SMEs	Understanding tourism's contribution to decent work and reduced inequalities (SDGs 8 and 10) & assessing tourism's socio-economic impact	/	Tourism contributes to positive regional job growth in the accommodation and food sector – income levels between the occupations do not show extraordinarily wide gaps. This is a positive sign for sustainable tourism development; however, the gaps are getting wider (Gini coefficient). The industry shows its contribution to SDG 10.	The share of occupations not requiring previous education has increased over the years–a development contrary to the pursued sustainability goals of the region as well as the SDGs. Income inequalities across tourism occupations remain relatively low, income inequalities over a period of nine years have increased.	

Recommendations: Further research of the area (it's unresearched). Increase the education levels of staff in order to fill leadership positions.

Informal recruitment processes should be professionalised through educating staff who have the capability to further develop the tourism offer in the region.						
Qiu et al. (2019)	Local stakeholders and local inhabitants	Developing and validating a framework for assessing economic sustainability from the perspective of local stakeholders		Findings; tourism economic sustainability construct consists of three dimensions: economic positivity, development control, and individual welfare		
Recommendations: The scale developed in this study contributes to the literature by considering some micro aspects, such as the individual welfare, into the economic sustainability measurement. Most existing sustainability evaluation tools and guidelines tend to focus on environmental and social perspectives. Some do refer to economic sustainability but mainly focused on macrolevel and objective indicators such as gross domestic product, employment rate and investment This article enhanced our understanding of tourism economic sustainability by expanding the measurement from the macrolevel to the micro-level. The finding should be used when government and industries prepare future development plans and to make policy decisions						
Ünal and Ipekci Cetin (2020)	Accommodation businesses	Selection of CRM software for an accommodation company	Search for the most suitable CRM software	CRM software can streamline operations, reducing inefficiencies that may lead to unsustainable practices. Improving operational efficiency through better customer management aligns with broader business sustainability goals, like enhancing competitive advantage while reducing unnecessary resource usage.	Businesses that put the customer at the centre of their activities and use their relations with their customers efficiently, provide competitive advantage and strengthen their position in the market	Customer relationship as driver of business success
Recommendations: Businesses that put the customer at the centre of their activities and use their relations with their customers efficiently, provide competitive advantage and strengthen their position in the market.						
Türkmendağ and Karaman (2024)	Gender inequality, equal pay	Gender inequality in the culinary profession can hinder the potential and talents of female chef candidates, reflecting gender inequality in	Female chefs' gender-based challenges, such as unequal pay, lack of promotions, difficult working conditions	The study highlights how addressing gender inequality in the workplace can enhance business performance, productivity, and fairness in the culinary	Female participants perceive more gender inequality and attribute more importance to gender inequality compared to male participants	Male-dominated leadership, managerial behaviour, insufficient promotion

					(H1), and they suffer more from gender inequality. Participants working as interns attribute more importance to/experienc e/witness gender inequality Importance attributed to gender inequality is higher among hotel employees.	pathwa ys, long workin g hours
	society and leading to a male-dominated work environment		field. These changes could potentially create more inclusive and diverse professional environments , which are important aspects of social sustainability within the industry.			

Recommendations: To support and advance the careers of female chefs in the culinary profession, the following suggestions can be made: businesses can create awareness to emphasize and support the leadership potential of female chefs, businesses can create mentorship programs, businesses can offer flexible working hours as a solution to allow talented female employees to balance their careers and family lives.

					Up to 70% of tourism revenue can be lost to leakage, particularly in small, developing economies that rely heavily on tourism. The service and product imports to cater to tourists' preferences contribute significantly to this leakage, reducing the net benefit to the host country.	
Garrigós et al. (2015)	Economic sustainability of tourism, referring to the additional income provided to locals to compensate them for the burden of tourists' presence	Analysis and calculation of economic leakage (revenue generated by tourists that does not remain in the destination economy) in tourism-dependent destinations.	Commonalit y of foreign-owned hotels, international tour operators and reliance on imported goods	Economic sustainability is compromised when leakage rates are high. High economic leakage reduces the long-term benefits of tourism for local economies, weakening their ability to invest in infrastructure, social services, and development.		Owners hip, import depend ence, limited local supply chains, tourism structur e

Recommendations: Improving measurements or focusing on the calculation of leakage in other subsectors of the tourism industry, in this or other destinations. In addition, further works should try to carry out in-depth research into the determinants of diverse leakages, and the influence of leakage on other variables of the economy, or on its influence on employment and the growth of this and other sectors.

Efforts to reduce leakage, such as promoting local ownership of tourism-related businesses, development of local supply chains, encouragement of the use of local agricultural produce, handicrafts and services, thereby decreasing reliance on imported goods and services and retaining more income within the local community.
Implementation of government policies and incentives to attract more local investment in tourism infrastructure and services, such as tax breaks, subsidies, etc.
Providing training and capacity-building programs for locals to enable them to take on managerial roles in the tourism sector.

Çelik and Çevirgen, (2021).	The role of accommodati on enterprises as key stakeholders in the	Do accommoda tion enterprises managers see	Stakeholder engagement , sustainable practices, customer behaviour,	Sustainable business practices can lead to cost savings, competitive	The study is based on qualitative data collected from 22	Corpora te social respons ibility, market

	sustainable development of tourism in Alanya (a destination facing economic sustainability challenges)	themselves as sustainable? The article mainly focuses on Corporate social responsibility and only partialy on economic sustainability.	training and education. The study aims to understand how the behaviours of accommodation enterprises influence the development of sustainable tourism in the region, reflecting a broader trend in the industry towards sustainability.	advantages, and customer loyalty. On the downside, accommodation enterprises face significant barriers such as high implementation costs, insufficient stakeholder support, and limited knowledge or awareness about sustainability practices.	accommodation enterprises in Alanya, 57 of which have environmentally friendly certifications. While these enterprises implement ecologically focused practices, the lack of governance and comprehensive planning inhibits broader sustainable outcomes.	competitiveness, environmental regulations. Challenges: implementation costs, insufficient stakeholder cooperation, limited knowledge about sustainable practices.

Recommendations: The subject of planning in sustainable tourism development, which emerged as a deficiency as a result of the research, should be examined in more detail in future studies. The dimensions determined for the research topics and the findings obtained from the study should be teste with quantitative studies carried out with larger samples. In addition, similar empirical studies should be conducted in the future with other destination stakeholders and a large number of other accommodation enterprises that do not have environmentally sensitive certificates.

Sorrell and Bovia (2023)	Hospitality sector	The hospitality industry may not fully leverage sustainability benefits.	Integration of sustainability into hospitality operations and brands, hotels adopting sustainability reporting and green practices.	Attracting and retaining customers, improved guest experience, alignment with SDGs, reduction in operation costs and GHG emissions.	70% of global travellers would book eco-friendly accommodations; 68% consider sustainability in purchases.	Consumer trends, corporate social responsibility.

Recommendations: Development of comprehensive sustainability training programs for all staff members to ensure that sustainability principles are intergrated into daily operations. Collaboration with suppliers to implement eco-friendly sourcing practices throughout the suppply chain. Establishing transparent sustainability reporting mechanisms.

Xie and Maclaren (2020)	Tourist accommodation facilities	Post COVID-19 recovery and the need for sustainable practices in tourism.	Implementing sustainable practices to attract guests and reduce operating costs.	Increased guest satisfaction, brand image, and financial benefits. Strengthened competitive advantage.	Sustainable properties attract more guests and gain tax breaks; UNESCO sites attract sustainability conscious visitors.	Demand for sustainability among travellers, financial incentives.

Recommendations: Implementation of industry-wide sustainability standards that facilitate collaboration and share best practices among accommodation sector, promotion of local food and product sourcing to enhance sustainability and support local economies. Encouraging investments in renewable energy sources and sustainable infrastructure for accommodation facilities.

HOTREC (2019)	Hospitality sector in Europe	The need for sustainable tourism	Calls for EU institutions to promote	Strengthened hospitality sector	The hospitality industry	Collaborative econo

		practices and fair regulation in the collaborative economy.	innovation and sustainability in tourism.	through job creation and sustainable practices.	created 1.6 million jobs in Europe from 2013 to 2016; 11.9 million total jobs in the sector.	my, digital transformation, consumer demand for sustainability.
Recommendations: Advocating for EU regulations that promote fair competition in the hospitality industry, especially regarding online platforms. Implementation of training programs focused on digital skills to prepare the workforce for the evolving hospitality landscape. Establishing voluntary frameworks that encourage restaurants and hotels to adopt sustainable practices without regulatory burdens.					
Caruso (2023)	Hospitality business model – Hortel (regenerative hospitality initiative in Italy)	The need for the accommodation sector to adopt regenerative practices for sustainability.	Implementation of nature-based solutions to enhance urban biodiversity and guest experience.	Regenerative hub that benefits the local community, enhanced well-being of guests and staff, reduced carbon footprint.	Sustainable practices can increase guest interest and willingness to pay for eco-friendly accommodation by up to 38% - effective marketing is important.	Corporate social responsibility strategies, changing consumer preferences for sustainability.
Recommendations: Hotels should shift towards regenerative business models that prioritize environmental health and social equity alongside profitability – integrating sustainability into the core business strategy. Involve local communities, employees and other stakeholders in the planning and implementation of sustainability initiatives. Establish strong corporate social responsibility frameworks that align with SDGs, including addressing socio-economic issues and fair labour practices.					
Meng et al. (2024)	Hotel sector	Relationship between CSR, intrinsic green motivation and employee energy-specific sustainable behaviour.	Influence of CSR initiatives on employee behaviours towards sustainability, with intrinsic motivation and personal norms acting as mediators.	Impact on energy-specific behaviours, contributing to sustainability efforts in the hotel industry.	CSR initiatives have a positive impact on employees' energy-specific sustainable behaviour and enhances green intrinsic motivation.	CSR initiatives, green intrinsic motivation, personal environmental norms, SDG framework.
Recommendations: Formulation of CSR initiatives that align with global frameworks such as SDG. Collaboration with governmental organizations, NGOs, and industry leaders to create comprehensive sustainability initiatives that go beyond hotel operations. Tailoring CSR programs to reflect the unique cultural end environmental challenges of specific regions or communities can make these initiatives more effective.					

DEFINITION:

Economic sustainability is ensuring viable, long-term economic operations that provide socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation (UNWTO, 2024).

We used another three definitions in order to clarify the research area:

- *According to the United Nations World Tourism Organization (UNWTO; 2004), economic sustainability addresses long-term viability of economic operations, fairness and equity of benefits distribution, employment and income-earning opportunities, and poverty alleviation.*

- *United Nations Environmental Programme (UNEP) and UNWTO's (2005) definition concerns with economic prosperity at different levels of society, cost-effectiveness and economic efficiency, and vitality of tourism enterprises.*
- *Choi and Sirakaya (2006) referred to economic sustainability as a process "optimizing the development growth rate at a manageable level with full consideration of the limits of the destination environment." (p. 1276)*

Qiu, H. et al 2019 say that *"Despite its pivotal role for tourism, the economic dimension of tourism sustainability remains poorly defined and studied. There is insufficient agreement on what conditions constitute a position of sustainability as it is a continuous and future state."*

"Economic sustainability of tourism is, in all these versions of definitions, a multidimensional construct of comprehensive meaning. However, existing studies on sustainability indicators often view economic sustainability as a unidimensional construct (Lawson, 2001; Miller, 2001; Muresan et al., 2016; Su & Lin, 2004; Timur & Getz, 2009). One exception is from the World Tourism Organization (UNWTO, 2004), which proposed seven subdimensions of economic sustainability: tourism seasonality, leakages, employment, tourism as a contributor to nature conservation, community and destination economic benefits, tourism and poverty alleviation, and competitiveness of tourism businesses (Qiu, H. et al 2019)".

LITERATURE REVIEW

Literature review was made using WOS and Scopus databases.

At first following keywords were used: *Economic sustainability and/or accommodation.* Results showed a lack of research papers on that field.

Articles with key words *"Economic sustainability / accommodation"* are focusing on sharing economy and accommodation (Airbnb). Consequently, we had to broaden research key words.

We relied on the SDGs, on the categories that define economic sustainability in the SDG 8 - economic growth and decent work and SDG 10 (reduced income inequalities) :

- Working rights
- Working environment quality
- Safe working environment
- Employment

The United Nations SDGs are crucial to addressing social, economic and environmental sustainability globally (UN 2020). Understanding tourism in relation to the SDGs is a challenging task (Bianchi & de Man 2021, Kronenberg, Fuchs 2021)."

Two additional search keywords were used; business sustainability and economic balance as suggested by Severiche-Sierra, C; Bedoya-Marrugo, E; Sierra-Calderon, 2017). The results show that business sustainability refer to long term survival of businesses. For example, Ünal, Z and Çetin, EI, 2020 searched for the best CRM system for accommodation sector companies, as good Customer relationship management (CRM) is one of the most important issues for business sustainability. Similar understanding of term business sustainability is also by Berke-Berga, A; Dovladbekova, I and Urbane, M, 2021 as they analyse the government assistance provided to entrepreneurs in Latvia during the COVID-19 crisis in order to achieve business sustainability. They find out that the accommodation and food services industry was among the most affected industries in the COVID-19 crisis.

NOTES

"Socio-economic sustainability for tourism workers does not play a prominent role in contemporary tourism economic impact studies. Rather, to promote economic growth paradigms, the focus lies on aggregated employment and income effects. To better understand tourism's contribution to decent work and reduced inequalities (Sustainable Development Goals 8 and 10, respectively), our study assesses tourism's socio-economic impact by focussing on meso-level perspectives from major tourism institutions that are complemented with macro-level results gained through an occupation-based Input-Output model. Although income inequalities across tourism occupations remain relatively low, income inequalities over a period of nine years have increased. Tourism employees continue to work in precarious occupations due to limited training and career opportunities (Kronenberg, Fuchs 2021)."

"Most existing sustainability evaluation tools and guidelines tend to focus on environmental and social perspectives. Some do refer to economic sustainability but mainly focused on macrolevel and objective indicators such as gross domestic product, employment rate and investment (Qiu, H. et al 2019)."

"Employers demand skilled vocational professions and provide non-monetary benefits; however, respective salaries remain average. Altogether, tourism contributes to Sustainable Development Goals 8

and 10 only moderately, and regional tourism institutions need to continue their development strategies for greater sustainability (Kronenberg, Fuchs 2021)."

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Interviews

Qualitative Empirical study - Interviews

Aim: provide qualitative insights into sustainability (i.e. sustainable practices, impacts of sustainable practices, barriers preventing sustainable transition, beliefs about sustainability standards, and barriers impeding implementation of sustainability standards; of the accommodation sector within Mediterranean region.

Methodology

Sample	Minimum 5 **SME's** from accommodation sector, per consortium country, associated to sustainability of tourism. Make sure your sample is as diverse as possible in terms of size, quality rating, amenities and geographic location (destination).
	SME definition[8]: • Staff count = < 250 permanent employees AND • Turnover= ≤ € 50 m OR Balance sheet total= ≤ € 43 m
Protocol	Ensure informative consent of each participant and data anonymity. Provide a written summary of each interview (use Interview recording template). Each Interviewee is coded by country and consecutive number (for example SI1 - Slovenia, IT1 – Italy, etc.)
Data collection	Semi-structured interview. Use interview guide and Data recording template, below.
Data analysis	Thematic deductive analysis, following Theory of Environmentally Significant Behaviour (Stern, 2000). Use data analysis template (below).
Submission deadline	May 30th2024

Theoretical framework is Theory of Environmentally sustainable behaviour (Stern, 2000, 2005), which suggests that sustainable behaviour is driven by contextual factors, attitudinal factors and personal capabilities.

Table 7 : Theoretical background

CONTEXTUAL FACTORS	PERSONAL CAPABILITIES	ATTITUDINAL FACTORS
Contextual Factors Available technology Embodied environmental impact, (e.g., energy efficiency of buildings, vehicles; materials in consumer products). Legal and regulatory requirements. Material costs and rewards (payoffs)	Personal Capabilities Financial resources Literacy Social status Behavior-specific knowledge and skills	Personal values General environmentalist predisposition (abstract norms). Behavior-specific (concrete) norms and beliefs. Non environmental attitudes, e.g., about product attributes. Perceived costs and benefits of action

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[8] https://single-market-economy.ec.europa.eu/smes/sme-definition_en

Convenience (e.g., of public transit, recycling Social norms and expectations.		
All factors pertain to "the implementation of ISO 21401 standard"		

Interview guide

1. How do you feel about sustainability in tourism?
    a. How important do you find it, for your business/hotel?
        i. Which aspects (social, environmental, economic)?
        ii. Why?
2. Please describe sustainability management system in your organization.
    a. Environmental?
    b. Social?
    c. Economic?
3. How does your organization practice sustainability?
    a. Environmental?
    b. Social?
    c. Economic?
4. How successful is your organization in practicing sustainability?
    a. How do you plan sustainability?
    b. How do you monitor sustainable progress?
        i. Equipment, processes, …
        ii. Social, environmental, economic
    c. What holds back your progress/success?
    d. What are key issues/challenges/barriers towards sustainable transition?
        i. Environmental, social, economic.

Date:	Country	Bosnia and Herzegovina
	Mast Partner	P5 – SMOC
Interviewee	Hotel (Name/Location)	Marriot Courtyard, Sarajevo
	Position	Director of Operations
	Gender	Female
	Working experiences in accommodation sector (full years)	13
	Age	n/a
Organization	Years in operation	9
	Size (rooms)	132
	Amenities	5 conference rooms, lounge bar, restaurant, lobby, rooms, bikes
	Type	Mngt contract
Sustainability management system	Sustainable label	In process (Green Key)
	Sustainable coordinator	Management
	Sustainable equipment/technology	Automatic light turn-off, green roof, conscious

		water waste, recycling and use of recycled material, little food waste
	Sustainable monitoring	Mesh – sustainability hub platform
	Social	/
	Environmental	Reuse of towels, bikes, etc.
	Economic	Led lights – energy savings
Sustainable beliefs (attitudinal factors)	Interviewee	Awareness of importance of sustainability, engaged in multiple projects
	Organization	Sufficient trainings for the time being
Sustainable success	Social	Success is measured by Marriot brand standards – number of returning guests, the continuous growth of conference rooms rental for events, etc.
	Environmental	Aware of environmental protection and climate change small contributions.
	Economic	Everything the hotel does, they believe, contributes to the economic sustainable success as well
	Drivers of success	Green actions are present
	Barriers to success	Solid infrastructure, monitoring system is functional, recycling and use of recycled material for guests.
Sustainability barriers (see data analysis template, for reference)	Contextual factors	/
	Personal capabilities	Well transferred awareness and knowledge to guests and visitors
ISO 21401	Existing knowledge	Isn't familiar with the ISO standard
	Interest	There is an interest
	Expected barriers	Staff resources for additional work efforts
	Expected benefits	None for the time being

	Anticipated needs	Allocation of resources – financial and human

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	/
PERSONAL FACTORS/CAPABILITIES	Aware of necessary projects and needed changes, aware of the necessary change of mind-set in BiH
ATTITUDINAL FACTORS	How demanding the implementation of the ISO standard is and what would be additional benefits
ANTICIPATED NEEDS	Detailed knowledge about the standard and resources

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	/
PERSONAL FACTORS/CAPABILITIES	Skills and competences, benefits
ATTITUDINAL FACTORS	How strongly would this effect the guests and visitors of the hotel
ANTICIPATED NEEDS	Detailed knowledge about the standard and resources

Date:	Country	Bosnia and Herzegovina
	Mast Partner	P5 – SMOC
Interviewee	Hotel (Name/Location)	Novotel
	Position	Operations Manager
	Gender	Female
	Working experiences in accommodation sector (full years)	11
	Age	/
Organization	Years in operation	3
	Size (rooms)	186 beds
	Amenities	4 big conference rooms, of which one could be split into 4 smaller rooms – usually rented for small seminars/meetings of up to 20 persons, pool, gym
	Type	
Sustainability management system	Sustainable label	HACCP
	Sustainable coordinator	/
	Sustainable equipment/technology	None
	Sustainable monitoring	None
	Social	/

	Environmental	Recycled material used, awareness of food waste
	Economic	/
Sustainable beliefs (attitudinal factors)	Interviewee	Not that aware of what sustainability really is/means in practice aside from recycling and to some extent waste management
	Organization	Should be more sustainability oriented considering the hotel brand
Sustainable success	Social	Returning guests is what was highlighted, but no monitoring tools to prove this
	Environmental	Recycled cups, straws, laundry bags, special brand environment friendly soap/shampoo used, electricity saving when possible
	Economic	/
	Drivers of success	Promotion of the brand
	Barriers to success	Import of recycled goods
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Legal and regulatory,
	Personal capabilities	Financial resources, specific knowledge and skills
ISO 21401	Existing knowledge	Not familiar with ISO 21401
	Interest	Fair interest
	Expected barriers	Doesn't know what to expect
	Expected benefits	Doesn't know exactly what to expect
	Anticipated needs	Monitoring, staff, costs, infrastructure
Date:	Country	Bosnia and Herzegovina
	Mast Partner	P5 SMOC
Interviewee	Hotel (Name/Location)	Bosmal Arjan by Rotana, Sarajevo
	Position	Director
	Gender	Male
	Working experiences in accommodation sector (full years)	18
	Age	/
Organization	Years in operation	6

	Size (rooms)	495 beds
	Amenities	Conference rooms, spa and wellness centre
	Type	Investors and management
Sustainability management system	Sustainable label	/
	Sustainable coordinator	/
	Sustainable equipment/technology	Work in progress
	Sustainable monitoring	Electricity bills monitored
	Social	/
	Environmental	Recycled material used to an extent
	Economic	/
Sustainable beliefs (attitudinal factors)	Interviewee	Non-environmental attitude
	Organization	Can not be determined
Sustainable success	Social	Returning guests over the years
	Environmental	Not too successful
	Economic	Moderately successful
	Drivers of success	/
	Barriers to success	Legal acts, law, investments needed
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Legal and regulatory
	Personal capabilities	Financial resources
ISO 21401	Existing knowledge	None
	Interest	Small
	Expected barriers	Everything
	Expected benefits	Can't think of any
	Anticipated needs	Resources

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Technology, energy efficiency
PERSONAL FACTORS/CAPABILITIES	Specific knowledge and skills
ATTITUDINAL FACTORS	Perceived costs and benefits of action
ANTICIPATED NEEDS	/

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Legal and regulatory
PERSONAL FACTORS/CAPABILITIES	Financial resources

	ATTITUDINAL FACTORS	Non environmental attitude – lack of awareness
	ANTICIPATED NEEDS	/

Date:	Country	Bosnia and Herzegovina
	Mast Partner	P5 SMOC
Interviewee	Hotel (Name/Location)	Insider
	Position	Director / owner
	Gender	Male
	Working experiences in accommodation sector (full years)	9
	Age	/
Organization	Years in operation	9
	Size (rooms)	Small – 14 beds
	Amenities	/
	Type	Owner
Sustainability management system	Sustainable label	/
	Sustainable coordinator	/
	Sustainable equipment/technology	/
	Sustainable monitoring	/
	Social	All efforts employed to satisfy the guests by all means and in a variety of ways, create an experience for them
	Environmental	/
	Economic	/
Sustainable beliefs (attitudinal factors)	Interviewee	Not too sustainability oriented
	Organization	Not too sustainability oriented
Sustainable success	Social	Very successful
	Environmental	Almost none
	Economic	/
	Drivers of success	Some funding or aid from the government would be welcome
	Barriers to success	/
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Available technology, embodied environmental impact, material costs
	Personal capabilities	Financial resources, specific knowledge and skills,
ISO 21401	Existing knowledge	None
	Interest	Interested

	Expected barriers	Doesn't know – but assumes resources, staff, time
	Expected benefits	Growth, additional branding, cost reduction
	Anticipated needs	Financial resources and staff

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Recycling, social norms and expectations
PERSONAL FACTORS/CAPABILITIES	Financial resources, knowledge and skills
ATTITUDINAL FACTORS	Norms and beliefs, personal values
ANTICIPATED NEEDS	Knowledge about the standard, resources required to implement it

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Equipment, infrastructure
PERSONAL FACTORS/CAPABILITIES	Knowledge – but what this standard really bring to a small hotel
ATTITUDINAL FACTORS	Not sure how it would affect the guests
ANTICIPATED NEEDS	Finances, staff, time allocation – would it be worthy

Date:	Country	Bosnia and Herzegovina
	Mast Partner	P5 SMOC
Interviewee	Hotel (Name/Location)	
	Position	Manager / Co-owner
	Gender	Male
	Working experiences in accommodation sector (full years)	3
	Age	/
Organization	Years in operation	3
	Size (rooms)	7 + one apartment
	Amenities	Diner room
	Type	/

Sustainability management system	Sustainable label	No
	Sustainable coordinator	No
	Sustainable equipment/technology	No
	Sustainable monitoring	Not yet
	Social	Returning guests, good booking.com evaluations
	Environmental	Use gas instead of electricity for heating, boilers, etc., little to none food waste, refills of shampoo and soap to avoid plastic waste
	Economic	No
Sustainable beliefs (attitudinal factors)	Interviewee	Positive attitude, but this is a long-term challenge for a small hotel
	Organization	Long-term planning necessary
Sustainable success	Social	Satisfied guests
	Environmental	/
	Economic	/
	Drivers of success	Branding and marketing
	Barriers to success	Competition, infrastructure, laws and regulations
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Available technology, legal and regulatory requirements, recycling
	Personal capabilities	Financial resources, staff
ISO 21401	Existing knowledge	None
	Interest	Existent
	Expected barriers	Don't know what to expect
	Expected benefits	Not sure how this would help expand the business
	Anticipated needs	Not sure

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Materials in consumer products, technology, recycling, social norms
PERSONAL FACTORS/CAPABILITIES	Knowledge and skills
ATTITUDINAL FACTORS	Personal values, general environmentalist
ANTICIPATED NEEDS	/

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Legal requirements
PERSONAL FACTORS/CAPABILITIES	Financial resources
ATTITUDINAL FACTORS	/
ANTICIPATED NEEDS	Perceived costs and benefits

(CODE GR)
Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	• Availability of eco-friendly technology. • Environmental impact reduction (e.g., energy-efficient buildings, waste reduction). • Compliance with environmental regulations and certifications. • Economic incentives for sustainable practices. • Accessibility to recycling facilities and sustainable resources.
PERSONAL FACTORS/CAPABILITIES	• Financial resources. • Staff training in sustainability practices. • Staff literacy. • Staff's ability to implement sustainable actions. • Awareness and skills in sustainable operations.
ATTITUDINAL FACTORS	• Embracing sustainability as a core value. • General support for environmental initiatives. • Concrete belief in the importance of sustainable practices. • Perception of sustainability as a competitive advantage. • Recognition of the business benefits of sustainability.
ANTICIPATED NEEDS	• Meeting guest's expectations for eco-consciousness. • Aligning with market trends and attracting eco-conscious guests. • Enhancing brand reputation and competitiveness.

	• Long-term cost savings and operational efficiency. • Contributing to environmental preservation and community well-being.

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	• Limited availability of eco-friendly technology. • High environmental impact (e.g., energy-intensive facilities, excessive waste). • Challenges in meeting environmental regulations and standards. • Perceived high costs and low returns on sustainable investments. • Inconvenient access to recycling and sustainable resources.
PERSONAL FACTORS/CAPABILITIES	• Limited financial resources. • Staff lacking relevant training and expertise. • Staff with limited literacy. • Lack of staff skills in sustainability. • Limited awareness and understanding of sustainability practices.
ATTITUDINAL FACTORS	• Disregard for sustainability as a priority. • Indifference or scepticism towards environmental issues. • Lack of belief in the benefits of sustainability. • Negative attitudes towards sustainability initiatives. • Resistance to change and preference for the status quo.
ANTICIPATED NEEDS	• Meeting short-term financial goals and cost-cutting measures. • Maintaining traditional practices and avoiding change. • Avoiding perceived additional workload and complexity.

	• Focusing on immediate profit maximization and operational simplicity. • Neglecting long-term consequences and environmental impacts.

(CODE IT1, IT2, IT3, IT4, IT5- Italy)

FRAMEWORK (Stern, 2000):

CONTEXTUAL FACTORS	PERSONAL CAPABILITIES	ATTITUDINAL FACTORS
Contextual Factors Available technology Embodied environmental impact, (e.g., energy efficiency of buildings, vehicles; materials in consumer products). Legal and regulatory requirements. Material costs and rewards (payoffs) Convenience (e.g., of public transit, recycling Social norms and expectations.	**Personal Capabilities** Financial resources Literacy Social status Behavior-specific knowledge and skills	Personal values General environmentalist predisposition (abstract norms). Behavior-specific (concrete) norms and beliefs. Non environmental attitudes, e.g., about product attributes. Perceived costs and benefits of action
All factors pertain to "the implementation of ISO 21401 standard"		

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Available technology (domotic rooms, electric car charging station), Embodied environmental impact, (energy efficiency of buildings, bike

	service; soap dispenser; minimum plastic usage; minimum water consumption; food waste reduction policy), Regulatory compliance (in the case of IT5 - European Charter for Sustainable Tourism in Protected Area - Phase 2), Valorisation of human resources, High customer expectations
PERSONAL FACTORS/CAPABILITIES	Financial resources
ATTITUDINAL FACTORS	Personal values, General environmentalist and social predisposition, Behavior-specific beliefs, Perceived benefits (economic return, continuous improvement, personal satisfaction)
ANTICIPATED NEEDS	Information and training, economic incentives, technical support

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Time, costs, bureaucracy
PERSONAL FACTORS/CAPABILITIES	Lack of knowledge about ISO 21401, Lack of sustainability skills, financial constraints
ATTITUDINAL FACTORS	Non environmental attitudes, High-cost perception, Resistance to Change, Perceived Burden, Misaligned priorities
ANTICIPATED NEEDS	Technical support and training, economic incentives, institutional support

(CODE SI1)

Date:	Country	SLOVENIA
	Mast Partner	UP FTŠ
Interviewee	Hotel (Name/Location)	BAU HOTEL, Maribor
	Position	Owner, employee
	Gender	FM
	Working experiences in accommodation sector (full years)	30
	Age	senior
Organization	Years in operation	18
	Size (rooms)	47 (4* in 3*)

	Amenities	Fitness, rooms, restaurant, sauna, conference rooms
	Type	Leisure, MICE
Sustainability management system	Sustainable label	Green Key, SloBike, Naše domače
	Sustainable coordinator	No
	Sustainable equipment/techno logy/processes	Energy efficient lighting and equipment. Hotel was built to last...to be sustainable.
	Sustainable monitoring	Annually for water, electricity and waste (Green Key).
	Social	Supporting local economy by purchasing at local food market; unsure if that's social or economic.
	Environmental	Encouraging walking instead of using elevators. Alternative heating (wood), garden, automated system for heating/air-conditioning, natural ventilation. Room cleaning upon request.
	Economic	Supporting local farmers as much as possible within the legal framework.
Sustainable beliefs/values (attitudinal factors)	Interviewee	Strong sustainable, responsible values, but because this is the only right way
	Organization	Yes, but in a simple – practical way. Teaching employees to be mindful of consuming natural resources, being efficient and being hospitable.
Sustainable success	Social	Unsure, because she/they never actually systematically looked at this.
	Environmental	Also unsure, but would assume to be above average, because they are mindful.
	Economic	They make enough for themselves and their employees make good income, compare to industry standard.
	Drivers of success	She adopted Green Key because she was curious, also with other standards. No actual, clearly visible success.
	Barriers to success	Information and support from Green Key. "They come, drink a coffee or two, and approve the seal". Standard are to theoretical, to complicated; nothing "practical here". No actual benefits are being pushed by the certified bodies...al vague; like it is al about money and not sustainability.
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Monitoring technology, ignoring small actual steps. Rewards Staff (or time) to do the monitoring and act upon results.

	Personal capabilities	Time, knowledge
ISO 21401	Existing knowledge	No, not really.
	Interest	Low interest in actual adoption, but curious of what it could give to the company.
	Expected barriers	Time consuming, low credibility, low impact; need to reconstruct some of the building. Collaboration of local stakeholders. Need for specific procurement and then suppliers "tight" your hands…. "…nothing can be made on our own…"
	Expected benefits	Knowledge of "resource leak", closing the leak, monetizing the standard on the market.
	Anticipated needs	Institutional support, credible auditing and provision of support in terms of how to improve.

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Technology for monitoring. Energy efficient building, green procurement (e.g., paper, cleaning supplies, etc.); norms "like everyone must have one or more labels".
PERSONAL FACTORS/CAPABILITIES	
ATTITUDINAL FACTORS	Pro-sustainable values, curiosity, norms
ANTICIPATED NEEDS	Technology, knowledge on sustainable practices, how to monetize sustainability orientation.

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	State of the infrastructure if changes are needed due to standard.
PERSONAL FACTORS/CAPABILITIES	
ATTITUDINAL FACTORS	
ANTICIPATED NEEDS	Knowledge on standard's requirements and benefits.

(CODE SI2)

Date:	Country	SLOVENIA
	Mast Partner	UP FTŠ
Interviewee	Hotel (Name/Location)	HAKABUK
	Position	GM
	Gender	M
	Working experiences in accommodation sector (full years)	35
	Age	Senior
Organization	Years in operation	20 (3 after renovation)
	Size (rooms)	135
	Amenities	Wellness, SPA, rooms, rent a bike, MICE
	Type	
Sustainability management system	Sustainable label	/
	Sustainable coordinator	/
	Sustainable equipment/technology/processes	Energy saving light bulbs. Water saving heads on taps (perlators). Local supply chains (10% only; no meat due to strict traceability rules); local wines, vegetables, souvenirs, etc. Waste separation (rooms, kitchen, restaurant, MICE area). Information based interventions to encourage towel reuse and responsible food handling.
	Sustainable monitoring	Only for costs purposes, no systematic periodic monitoring. (Electricity, water, waste)
	Social	Periodic meetings with local community (e.g. sport association). No systematic approach
	Environmental	Water, electricity, waste – typical communication tools and some resource efficient equipment (e.g. water taps, energy appliances).
	Economic	None
Sustainable beliefs/values (attitudinal factors)	Interviewee	Moderate pro-sustainable beliefs, but strong doubts on the effectiveness for either sustainable footprint or market value. Strong contextual barriers evident, mostly transferred to state/politics to solve problems and incentivise businesses or to MICE organizers (irresponsible ordering of catering) and unexpected conditions (e.g. snowfall makes people cancel attendance at events – food waste). Sustainability processes and (business) monitoring strongly embedded in service industry; hence, no need for ISO standards to oversee that; just additional admin work and costs.

	Organization	Weak sustainability orientation, due to other organizational and business- oriented commitments.
Sustainable success	Social	Providing space for local events. Discounts for local population to use SPA/Pool area. Co-marketing with local sport association and other MICE organizers. Most likely similar to average business in this industry.
	Environmental	Did what they can for energy and water saving. A lot more needs to be done on food waste and general waste. Using reusable soap dispensers, bio cleaning supplies.
	Economic	No idea how to understand and measure economic sustainability. They do support (buy from them) local producers as much as they can.
	Drivers of success	Technological solutions, industry standards (renovations; for example, only super energy saving appliances available). Legislation when it comes to waste separation.
	Barriers to success	Lack of staff, financial incentives, limited ability to measure (it could be, that we're much better than we think). Technology is great to some extent, but imposes other challenges. For example, they use automated energy/heating system, but due to extreme outside temperature variations, rooms are not quickly enough adapted, guests' complaint that is either too hot, or to cold. Sustainable transportation requires community/municipality changes (e.g., bike tracks).
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Lack of financial support – governments adopt sustainability-oriented legislation, but leave investments and changes to industry. Poor investment/funding ability. Poor understanding of reward or positive consequences of sustainability transition. Huge material costs of sustainable transition. Organizational structure and staff shortage. Small companies – limited staff, multitasking is a common thing, no time for additional obligations.
	Personal capabilities	Knowledge and skills for measuring. No "obvious value" of ISO standard.
ISO 21401	Existing knowledge	Well informed and experienced in ISO 14001 and ISO9000. Not familiar with ISO21401, but suggests it follows the same approach as any ISO standard – huge amount of monitoring and reporting, plus costs associated with assessment and implementation.
	Interest	None
	Expected barriers	Huge costs, at least one additional coordinator for ISO, additional tasks imposed on existing personnel; lack of time for reporting/evidencing.
	Expected benefits	None, because most of the processes they already do, but for their own business operation needs.
	Anticipated needs	System support, financial incentives, training of staff, clear benefits of ISO 21401 adoption. Automated monitoring system, integrated with PMS and other IT systems, so analysis is automated.

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Social norms/expectations that everyone/everything must be sustainability certified. Legal and regulatory framework pushes adoption of sustainability standards.
PERSONAL FACTORS/CAPABILITIES	Genuine interest in performance (e.g., sustainability is cost efficiency)
ATTITUDINAL FACTORS	Sustainability is important, but no one knows what actually is.
ANTICIPATED NEEDS	

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Monitoring technology availability. Staff/skills shortage to adopt the technology for monitoring.
PERSONAL/Organizational FACTORS/CAPABILITIES	Financial resources for equipment/staff/system change. Literacy of sustainability indicators and sustainability transition benefits. Staff shortage, overwhelmed with work, no capacity for sustainability monitoring and reporting.
ATTITUDINAL FACTORS	Personal/organizational costs outweigh benefits. Very little is known about what sustainability of accommodation sector encompasses.
ANTICIPATED NEEDS	Financial incentives. Proof of evidence what are the benefits of ISO 21401. Clear definition of sustainability criteria and KPIs. Technological (smart) support for monitoring and reporting.

(CODE SI3)

Date:	Country	SLOVENIA
	Mast Partner	UP FTŠ
Interviewee	Hotel (Name/Location)	Pohorje Green Village
	Position	M
	Gender	F
	Working experiences in accommoda	26

	tion sector (full years)	
	Age	Middle management
Organization	Years in operation	20
	Size (rooms)	120
	Amenities	Wellness, SPA, rooms, rent a bike, MICE, fitness, recreational programmes
	Type	Management contract
Sustainability management system	Sustainable label	Green Key
	Sustainable coordinator	/
	Sustainable equipment/technology/processes	Some energy efficient equipment in kitchen, few water perlators on taps, private water spring, motivate guests and employees to mind waste production – separation, reusing towels, responsible use of AC and responsible food handling. The work hard on local supplies, but extremely limited due to restrictions and existing providers.
	Sustainable monitoring	Via invoices for energy and waste.
	Social	None comes to mind, but trying to "come up with something".
	Environmental	Water perlators (taps), remind guests to reuse towels and mind food waste.
	Economic	None comes to mind.
Sustainable beliefs/values (attitudinal factors)	Interviewee	Strong sustainability orientation, recognizes social norms and existing regulatory frameworks, but also strong believes that we must transit to more sustainable operations.
	Organization	Most of employees share the same beliefs, but some still need "additional push" to align themselves with organization.
Sustainable success	Social	Hard to tell, because they do not know how to measure success (no one to benchmark with). They simply follow what others do with hope that it makes sense and saves natural resources or reduce negative impacts.
	Environmental	
	Economic	
	Drivers of success	Believes that we need to go "green", support from systematic approaches to stimulate sustainable tourism (e.g. national funding schemes for green labels).
	Barriers to success	Monitoring technology, existing infrastructure with limited possibilities for improvements (e.g. investment funding). Guest seem to care for sustainable orientation and green environment, but are also reluctant to actively contribute. She "guesses" that being in green natural environment, does help reminding guests.
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Funding, staff, knowledge, technology for monitoring, energy efficient building, laws preventing many social/economic oriented sustainability actions.
	Personal capabilities	Knowledge – about monitoring technology and actions helping change guests behaviour.
ISO 21401	Existing knowledge	Knows ISO standards, but this one specifically not.

	Interest	Hard to tell, but if knowing the benefits (for company, guests) she would be interested.
	Expected barriers	Cost, labour needed – staff, compliance with the standard requirements.
	Expected benefits	To make some significant progress in increasing sustainability of operations, costs reduction, branding, knowledge-skills to develop sustainability operation system through out entire company.
	Anticipated needs	Money, time, staff

Data analysis template

(CODE SI3)

FRAMEWORK (Stern, 2000):

CONTEXTUAL FACTORS	PERSONAL CAPABILITIES	ATTITUDINAL FACTORS
Contextual Factors Available technology Embodied environmental impact, (e.g., energy efficiency of buildings, vehicles; materials in consumer products). Legal and regulatory requirements. Material costs and rewards (payoffs) Convenience (e.g., of public transit, recycling Social norms and expectations.	**Personal Capabilities** Financial resources Literacy Social status Behavior-specific knowledge and skills	Personal values General environmentalist predisposition (abstract norms). Behavior-specific (concrete) norms and beliefs. Non environmental attitudes, e.g., about product attributes. Perceived costs and benefits of action
All factors pertain to "the implementation of ISO 21401 standard"		

Pro SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Regulatory framework, "industry norms", financial rewards.
PERSONAL FACTORS/CAPABILITIES	Awareness of areas where sustainability has to be improved.
ATTITUDINAL FACTORS	Personal values, perceived costs-benefits of standard,
ANTICIPATED NEEDS	Knowledge on standard, finances, staff - time

Against SUSTAINABILITY/ISO STANDARD

CONTEXTUAL FACTORS	Payoffs, opportunity to reconstruct buildings - equipment
PERSONAL/Organizational FACTORS/CAPABILITIES	Skills, knowledge (pessimism about effectiveness of standard).
ATTITUDINAL FACTORS	Guests would not care
ANTICIPATED NEEDS	Knowledge on standard, finances, staff - time

Date:	Country	SLOVENIA
	Mast Partner	UP FTŠ
Interviewee	Hotel (Name/Location)	Hotel Mantova
	Position	Owner, manager
	Gender	male
	Working experiences in accommodation sector (full years)	20
	Age	40
Organization	Years in operation	26
	Size (rooms)	22
	Amenities	restaurant, coffee shop, small conference room
	Type	transition
Sustainability management system	Sustainable label	No
	Sustainable coordinator	No
	Sustainable equipment/technology/processes	Energy efficient lighting and Water saving heads on taps (perlators).

		Solar power plant is currently under construction.
	Sustainable monitoring	Monthly for water and electricity
	Social	Supporting local Fireman association, in the past also some sports clubs. Occasionally purchasing from local distributors (not purchasing from local stores or farms)
	Environmental	Encouraging cycling (rent a bike in free of charge)
	Economic	Owner sees sustainability only through savings and cost reduction, resulting in higher profits.
Sustainable beliefs/values (attitudinal factors)	Interviewee	Weak sustainable values. Sees sustainability only through savings and cost reduction, resulting in higher profits.
	Organization	Same as interviewee
Sustainable success	Social	No, as there is no "investment".
	Environmental	30% of electricity will be from solar power plant, 20% water reduction.
	Economic	Reducing costs of energy by 30%.
	Drivers of success	Financial savings.

	Barriers to success	No investment, sustainability is not a priority.
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Sustainability of hotel is not a factor when customers are booking a hotel.
	Personal capabilities	
ISO 21401	Existing knowledge	No
	Interest	No interest in actual adoption, not interested in any certification or labelling
	Expected barriers	Standards are too complicated, he doesn't see any benefits. He doesn't want foreign people to tell him what to do in his hotel.
	Expected benefits	The "decision making criteria" when booking this hotel are location and price. So owner sees no benefits of any standards or labels.
	Anticipated needs	/

Date:	Country	SLOVENIA
	Mast Partner	UP FTŠ
Interviewee	Hotel (Name/Location)	Kris Škerlj s.p., Škerlj Wine resort
	Position	Manager, Mirjana Petrič
	Gender	Female

	Working experiences in accommodation sector (full years)	5
	Age	50
Organization	Years in operation	4
	Size (rooms)	6
	Amenities	Outdoor pool, wine cellar, vineyards, wedding venue
	Type	Leisure (remote and quiet)
Sustainability management system	Sustainable label	/
	Sustainable coordinator	/
	Sustainable equipment/technology/processes	WATER & HEATING Heat pump for heating and cooling Solar power plant will be implemented soon. Water saving heads on taps (perlators). PREMISES Estate is closed during winter months due to high heating costs, house is made of stone and is difficult to heat. Outside pool is not heated, because of costs and unsustainability.
	Sustainable monitoring	Only for costs purposes, no systematic periodic monitoring. (Electricity, water, waste)
	Social	Purchasing from local subcontractors
	Environmental	FOOD & BEVERAGES They grow their own fruits and some vegetables and try to get as much food as possible from

		farms nearby (eggs are purchased from neighbour). They produce their own wine. They serve breakfast upon request and check with guests about their preferences, so they have almost no left overs – if any, they give leftovers to farm in the village. EVENTS Wedding organisers need to clean all decoration, except fresh flowers. All remaining food is offered to wedding guests to take it home.
	Economic	None
Sustainable beliefs/values (attitudinal factors)	Interviewee	Strong pro-sustainable beliefs, runs a hotel with environment in mind. She paid special attention to sustainable materials during the renovation and that estate is restored in accordance with the heritage. Encourages guests to act sustainably.
	Organization	Organisation = entrepreneur = Interviewee
Sustainable success	Social	Cooperates with village and neighbouring farms.
	Environmental	
	Economic	Not measuring
	Drivers of success	Personal values, Legislation when they renovated premises (Zavod za kulturno dediščino).
	Barriers to success	Small size or enterprise
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Poor investment/funding ability and no time for additional obligations.
	Personal capabilities	Not seeing value of ISO standard.

ISO 21401	Existing knowledge	Not familiar with ISO21401, sees standards as huge amount of monitoring and reporting, plus costs associated with assessment and implementation.
	Interest	None
	Expected barriers	Costs in too big for small company, additional tasks imposed on entrepreneur; lack of time for reporting/evidencing.
	Expected benefits	None
	Anticipated needs	No, as they are not interested in implementation.

Date:	Country	SLOVENIA
	Mast Partner	UP FTŠ
Interviewee	Hotel (Name/Location)	Hostel Soline
	Position	Manager
	Gender	male
	Working experiences in accommodation sector (full years)	10
	Age	48
Organization	Years in operation	27
	Size (rooms)	17
	Amenities	restaurant, coffee shop, bike storage, terrasse
	Type	transition
Sustainability management system	Sustainable label	No
	Sustainable coordinator	No
	Sustainable equipment/technology/processes	Energy efficient lighting and ecological cleaners (natural and

		environmentally friendly ingredients) Solar power plant could be installed in the future but it is decision of the owner .
	Sustainable monitoring	Monthly, but mainly in the peak season from (June – September)
	Social	Supporting local sports clubs. During the season purchasing from local distributors and some local food suppliers)
	Environmental	Encouraging cycling (rent a bike and rent a e-bike), part of the project "food waste" to reduce the waste from the plates of the guests
	Economic	Economic sustainability is understood only via savings and cost reduction (supply and staff).
Sustainable beliefs/values (attitudinal factors)	Interviewee	Weak or almost no sustainable values – the reason is seasonal business and pressure of the operational costs. Savings and cost reduction are main reasons of not implementing more sustainable practices.
	Organization	Since the manager is only employee for whole year the thinking of organization is the same.

Sustainable success	Social	There are, but connected mostly on inclusion of students, people with disabilities and some social projects in the local community – cooperation with NGOs and associations.
	Environmental	Recycle and waste separation.
	Economic	Heat pumps to reduce the heating costs during the winter and summer season – optimization with the limited offer of rooms and breakfast in the low season.
	Drivers of success	Financial savings and seasonal workers.
	Barriers to success	Sustainability is not a priority and limits with the low investments of the owner – 3 years contract (after that renewal). Old building with limited options for sustainable practices.
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Implementation of sustainability of hostel operations is not yet the factor to better business results (more bookings).
	Personal capabilities	Limited knowledge of sustainable practices – need for more knowledge and financial help of the destination or state/government.

ISO 21401	Existing knowledge	Very limited or no
	Interest	No interest in actual changes, but interested in getting more information and knowledge of certification or label.
	Expected barriers	At the moment, he lacks knowledge of sustainable standards/certification system, therefore he doesn't see any benefits. Maybe the start is to implement some national labels and later others.
	Expected benefits	He see benefits but the process and investments are too big (from his point of view) for starting the process. The limit is also of short term contract of the business.
	Anticipated needs	/

Date:	Country	SLOVENIA
	Mast Partner	UP FTŠ
Interviewee	Hotel (Name/Location)	Hotel Boutique Portorož
	Position	Manager
	Gender	male

	Working experiences in accommodation sector (full years)	15
	Age	34
Organization	Years in operation	7
	Size (rooms)	89
	Amenities	Restaurant, bar, 3x congress rooms, indoor/outdoor pool + saunas, bike storage, terrasse, parking garage
	Type	transition
Sustainability management system	Sustainable label	Not yet (but in the process of gaining GREEN KEY in year 2024)
	Sustainable coordinator	No in the hotel but in the company YES (they own more hotels)
	Sustainable equipment/technology/processes	Energy efficient lighting (sensors) and ecological cleaners with the eco certificates (natural and environmentally friendly ingredients in the hotel rooms and other units), F&B sector strictly large quantities (bulk) no more packing in plastic storage, unused fruits and vegetables are used for smoothies, reuse of uneaten food (next day or employees). Solar power plant could be installed in the future but at the moment it is not in the plans due to the high costs .

	Sustainable monitoring	Monthly on the operational sector (rooms department/cleaning, F&B)
	Social	Supporting local initiatives of cleaning actions. Buying from local distributors and local food suppliers). Supporting local sport and other NGOs.
	Environmental	Rent a bike offer, "food waste" awareness" – reuse of uneaten food & distribution to the employees, "perlators" on all water taps and showers (also in the swimming pool area); communication about the room cleaning and towel change, using paper over plastic, power stations for electric cars;
	Economic	Economic sustainability is connected to social and environmental.
Sustainable beliefs/values (attitudinal factors)	Interviewee	Medium sustainable values – usual practice of sustainability (water & electricity savings, recycle, green mobility).
	Organization	High sustainable values which are connected to follow the green key standards and awareness of the guests coming to the hotels.

Sustainable success	Social	Cooperation with the local community and activities (area cleaning on the world environment days), employment of locals (if possible)
	Environmental	Reuse, recycle, food waste management, education
	Economic	Not, but when they can apply on some funding from eco fuds they do.
	Drivers of success	Financial savings but also the awareness of the global environmental issues
	Barriers to success	Funding and lack of connection with the increased bookings of the guests – guests do not recognize certificates and standards owned by the hotel.
Sustainability barriers (see data analysis template, for reference)	Contextual factors	Implementation of sustainability to hotel operations is not necessarily connected to more bookings and better financial results.
	Personal capabilities	Knowledge of sustainable practices exists – need for more financial support of the government.
ISO 21401	Existing knowledge	NO
	Interest	Since they are in the process of applying GREEN KEY, ISO 21401 is not in the plans.

	Expected barriers	Same as with GREEN KEY – good for company values and processes (higher sustainability) but low connection to the better booking/financial results.
	Expected benefits	Same as Green Key.
	Anticipated needs	/

NATIONAL AND INTERNATIONAL SUSTAINABILITY CERTIFICATIONS IN SPAIN

Obtaining certifications that guarantee the achievement of certain sustainability standards is an especially popular measure in the Spanish hotel sector. These certifications are granted by a third party (and often accredited even by an additional actor that supervises the nature of the certification itself), and are obtained by demonstrating the achievement of minimum standards, whether oriented towards specific results or the implementation of processes, or both.

In addition to the educational value that they can have for the identification of good practices, and even the advice that their implementation can be accompanied by, their attractiveness lies in the added value that they can generate for clients and their influence on decision-making. Among others, certifications are reputation and differentiation tools, which can ultimately have a positive impact on economic performance. In general, its main value comes from the possibility of controlling the company's impacts, identifying areas for improvement and working with groups of relevant actors.

Among the national (Spain) and international experiences of certifications, some of the most applied, best known or specific to the hotel sector stand out:

- Asian Ecotourism Standard for Accommodations (AESEA): It is a specific example of the tourist accommodation sector, although with the particularity of being oriented towards Asian ecotourism. For this reason, it is not surprising that the environmental dimension has a more marked weight in the standards than other dimensions, although it also highlights the importance of the well-being of the local community.

- Austrian Ecolabel: This stamp is aimed at the Austrian tourism sector. Like others, it is a generic ecolabel for which specific standards have

been developed for the tourism sector and, specifically, for tourist accommodation.

- Biosphere: This certification has an international scope and has been created by the Responsible Tourism Institute. Its scope of application is the tourism sector, but it has developed its own standards for the hotel sector.

- Ecofoodies: Unlike the previous ones, this eco-label is specifically focused on the food and beverage sector of the hotel sector. International in nature, it promotes sustainable practices in the management of food and beverages in hotels, thus contributing to reducing the environmental impact associated with this area of operations. It should be noted that it places a lot of emphasis on the food chain, as well as food waste.

- EU Ecolabel: This ecological quality seal has a global reach, but is specifically designed for the hotel sector within the European Union.

- Ecostars: With international scope, this certification focuses on promoting sustainable practices in the hotel sector in general, recognizing and rewarding those establishments that demonstrate an outstanding commitment to protecting the environment and the local community.

- Fair Trade Tourism: Aimed at guaranteeing fair trade, this international seal is focused on the tourism sector, but has specific standards for the hotel sector. As its name indicates, it pays special attention to local economic development, economic justice, the supply chain and the quality of employment generated.

- Global Ecosphere Retreats: Based in the United Kingdom, this international certification is awarded to hotels that demonstrate their commitment to environmental sustainability and ecological conservation.

- Green Seal: This certification was born with a focus aimed at ridding the world of toxic products. Despite being very oriented towards more tangible production chains, it has developed standards for tourist accommodation. For this reason, it focuses on waste management, resource consumption, or the facilities and materials used, for example.

- Green Globe: Due to its long history, it has a consolidated position in the tourism certification market. As Biosphere, focuses on sustainable tourism and approaches it holistically.

- Green Key: With its origin in Denmark and a global reach today, this certification was also created with the aim of contributing to

sustainable tourism and develops its own standards for tourist accommodation. Like Biosphere either Green Globe, addresses the main dimensions of sustainability.

- Hoteles más verdes: It is a national program based in Argentina and especially dedicated to certifying the sustainability of hotels. Like other ecolabels, their standards encompass different dimensions of sustainability and attempt to address it holistically.

- LEED (Leadership in Energy and Environmental Design): More than just a certification, LEED is an internationally recognized rating system for sustainable buildings, including hotels, that evaluates a building's environmental performance in areas such as energy efficiency, indoor air quality and the use of sustainable materials.

- Travellife: With a focus on the tourism sector in general, including hotels, this international certification promotes sustainable practices in all areas of the tourism industry, from environmental management to social behavior and business ethics.

- SICTED: This Spanish national program focuses on the tourism sector in general, including hotels, and certifies that establishments meet quality standards at the local level, thus promoting continuous improvement in the tourism offer. Although it is not specifically oriented towards sustainability, it does include several specific standards in a transversal manner.

These cases, although from slightly different areas and contexts, usually set standards for similar topics and areas of action. For example, in the environmental field, measures aimed at reducing emissions and the carbon footprint, improving waste management, water consumption and energy consumption stand out as constant.

More variety is found in the social dimension, although there is some consensus on measures related to local heritage and culture (normally as part of the design of services and experiences), as well as customer satisfaction and the working conditions of workers.

From an economic perspective, indicators often incorporate information on economic-financial management. The sustainability measures that tend to appear the most are related to the creation of local employment, the local business fabric, as well as the salary conditions of employees.

Other standards also include production chain management (especially purchasing and supplier selection), as well as sustainability planning or management systems.

As an annex to this previous research on national and international sustainability certifications in Spain, a table is attached that includes the tourism and environmental certifications held by a sample of almost a hundred Spanish accommodation companies based on the information provided by the entities themselves:

Tourism and Environmental/Building Certifications of a Sample of Accommodation companies (approx. 100) – SPAIN (May 2024)

HOTEL	TOURISM CERTIFICATION	ENVIRONMENTAL OR BUILDING CERTIFICATION	CITY	CATEGORY
Ilunion San Mames	ECOSTARS	Q Sostenible Excellence Energetic certification A	Bilbao	****
Ilunion Suites Madrid	Travel Life	Energetic certification C Q Sostenible Evolution	Madrid	****
Ilunion Alcala Norte	-	UNE 170001	Madrid	****
Ilunion Atrium	Travel Life	Q sostenible	Madrid	****
Barceló Tenerife	Biosphere Travel Life	Breeam	Tenerife	*****
Baceló Fuerteventura	Biosphere Travel Life	Breeam	Fuerteventura	****
Barceló Hotel Group	Travel Life Tui	Breeam	Mallorca	*****
Barceló Castillo Beach Resort	Travel Life	-	Las Palmas	****
Barceló Occidental Jandia Playa	Travel Life	-	Las Palmas	****
Barceló Occidental Jandia Mar	Travel Life	-	Las Palmas	****
Barceló La Bobadilla a Royal Hideaway Hotel	Marca Q de Calidad Turística	-	Granada	*****
Barceló Torre Madrid	-	Energetic certification B	Madrid	*****
Barceló Santa Catalina a Royal Hideaway Hotel	Travel Life	Verde	Las Palmas	*****

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Barceló Fuerteventura Thalasso Spa	Travel Life	Energetic certification C	Las Palmas	****
Catalonia Mirador des Port	Biosphere	Energetic certification B	Menorca	****
Catalonia Gran Via Bilbao	-	Energetic certification B	Bilbao	****
Catalonia Sevilla Santa Justa	Travel Life	Energetic certification B	Sevilla	****
Catalonia Donosti	Travel Life	Energetic certification B	San Sebastian	****
NH	-	Breeam	-	
GF Victoria	Socio Pacto Mundial	Energetic certification A	Tenerife	*****
Vincci Consulado de Bilbao	-	ISO 14001 Energetic certification A	Bilbao	****
Vincci The Mint	Ecolíder	ISO 14001 Energetic certification A	Madrid	****
Vincci Selection Posada del Patio	Travel Life	ISO 14001	Málaga	*****
Costa del Sol Hotels	-	Breeam	Málaga	***
Pestana CR7 Gran Via	-	Energetic certification A	Madrid	****
Bahía del Duque	Travel Life	-	Tenerife	*****
Hotel Algadir del Delta	ECOLABEL	-	Tarragona	***
Inout Hostel	Biosphere	-	Barcelona	Hostel
Sleep'n Atocha	Travel Life	-	Madrid	**
Playa Garden Selection Hotel & Spa	Travel Life TUI	ISO 14001	Mallorca	****
HOVIMA La Pinta Beachfront Family Hotel	Travel Life	-	-	****
És Racó d'Artà	-	Energetic certification A	Mallorca	*****
Castilla Termal Hoteles	Biosphere	Energetic certification A and B	Valladolid	****
Sandos Papagayo	Biosphere Travel Life	-	Las Palmas	****
Hotel Mediodia	-	-	-	
Hotel Cullera Holiday	Biosphere	-	Valencia	****

Hibiscus Lanzarote	-	-		
Abba Hoteles	ECOSTARS Greenkey Biosphere Ecofoofies	-	-	-
Hotel Marítim	-	-	Girona	****
Poseidon Playa	Marca Q de Calidad Turística	Energetic certification D	Alicante	***
Samba Hotels	-	EMAS ISO 14001	Girona	***
Houm Hotels	Travel Life	-	Mallorca	****
Rural Suite Apartamentos	Marca Q de Calidad	-	Navarra	Tourist apartment
Jumeirah Port Solller Hotel & Spa	Green Globe	Leed Gold	Mallorca	*****
Hotel Fariones	Travel Life	Energetic certification A	Lanzarote	*****
Hotel Viura	-	Energetic certification A	Álava	****
Cabanitas del Bosque	Marca Q de Calidad	Energetic certification A	A Coruña	Tourist apartment
Grand Hotel Residencia	Travel Life Tui GSTC EMAS Earth Check y Zero Emision Positive Footprint	Cradle to cradle	Las Palmas	*****
Lopesan Hotels & Resorts	-	-	Las Palmas	****
Mas Montbrio Belvedere	Greenleader de Tripadvisor	-	Tarragona	Rural Accommodation
ZT The Golden Hotel Barcelona	Biosphere The Green Key	Energetic certification A	Barcelona	****
MIM Ibiza	-	Leed Gold	Ibiza	*****
MIM Sitges	-	Leed Platinum	Barcelona	****
MIM Mallorca	-	Leed	Mallorca	****
MIM Baqueira	-	Leed	Lleida	****
Hoteles Santos Las Arenas	Carbon Proof (CBC) / Safe Turism (ICTE)	-	Valencia	*****
Grupo Martinez	Travel Life SICTED	Energetic certification A	Lanzarote	****

Sentido Benalmádena Beach Hotel	Marca Q de Calidad Turística Travel Life	Energetic certification A	Málaga	****
Molino la Nava	Marca Q de Calidad Turística	-	Córdoba	Rural Accommodation
Six Senses Ibiza	The Green Key	Breeam	Ibiza	*****
Can Salia	-	Energetic certification B	Ibiza	****
Hotel Arts Barcelona - Ritz Carlton	Biosphere	Breeam Gresb	Barcelona	*****
Hotel Rupit	-	-	Mallorca	***
Ohla Barcelona	Biosphere	Energetic certification A	Barcelona	*****
Ohla Eixample	Biosphere	Energetic certification A	Barcelona	*****
B&B Hotels	B corporation	-	-	***
Hacienda San Jorge	Tui	-	Tenerife	***
Olivia Hotels	-	Energetic certification A	-	*****
Hotel Desconecta2	-	Energetic certification B	Badajoz	*****
Hotel Pulitzer	-	-	Barcelona	****
Hotel Regina	-	-	Barcelona	****
Bypillow	ECOSTARS	Energetic certification B	-	***