



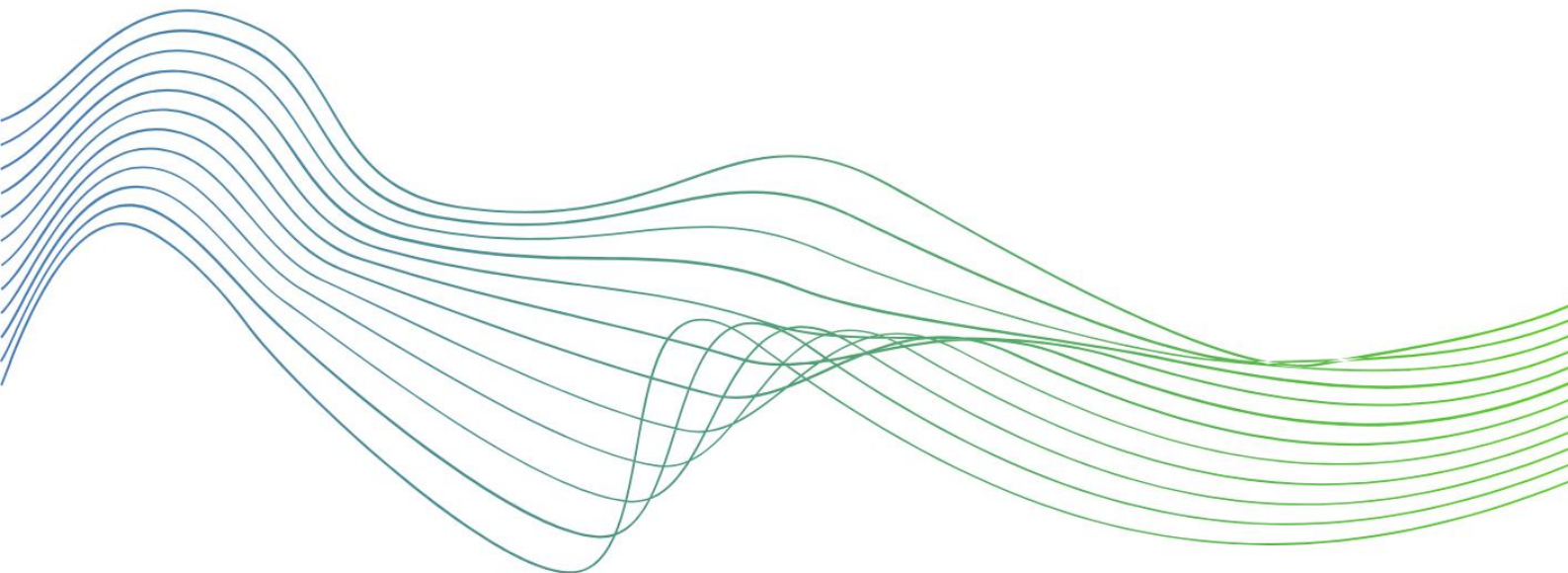
Green Host
CoVE Project



Co-funded by
the European Union

SECTORAL, EDUCATIONAL AND ENTREPRENEURIAL CURRENT SITUATIONS AND NEEDS ASSESSMENT OF TARGET GROUPS

PROJECT NUMBER: 101144003



Report made by:

Greece:

- University of Macedonia (<https://www.uom.gr/en>)
- EPIHAL - Chamber of Halkidiki (<http://www.epihal.gr>)
- TIHC - Technical Institute of Heraklion Chamber of Commerce & Industry (<http://www.katartisi.gr>)
- OECON Group – Business and Development Consultants (<https://www.oecon.gr/en/>)

Bulgaria:

- MTBG - Ministry of Tourism – Bulgary (<http://www.tourism.government.bg>);
- Euro-Alliance Ltd (<http://www.euro-alliance.net>)
- PCCI - Plovdiv Chamber of Commerce and Industry (<http://www.pcci.bg>)

Cyprus:

- Frederick University (<http://www.frederick.ac.cy>)
- MAG – Magnetar (<http://www.magnetar.com.cy>)
- NTB - Nicosia Tourism Board (<http://www.ntb.org.cy>)

Italy:

- AITR - Associazione Italiana Turismo Responsabile (<https://www.aitr.org/>)
- CSL - Centro Studio e Lavoro La Cremeria (<http://www.csl-cremeria.it>)

Portugal:

- Escola Superior de Hotelaria e Turismo do Instituto Politécnico do Porto (<http://www.esht.ipp.pt>)
- TPNP, E.R. - Turismo do Porto e Norte de Portugal, E.R. (<http://www.portoenorte.pt>)

Slovenia:

- SŠGT MB - Srednja šola za gostinstvo in turizem Maribor (<https://www.ssgt-mb.si/>)
- Maribor Tourist Board (<https://www.visitmaribor.si/>)

Spain:

- CETT - Barcelona School of Tourism, Hospitality and Gastronomy (<https://www.cett.es/es/>)
- AETHNIC - ETHNIC Sustainable Tourism Association (<https://www.aethnic.org/aethnic/>)
- CCI Girona - Cambra de Comerç, Indústria i Navegació de Girona (<http://www.cambragirona.cat>)

Date: October 2024

Executive Summary

This Report about the **Sectoral, educational and entrepreneurial current situation and needs assessment of target groups** is the result of the research and innovation Work Package 2, that serves as the foundational driver of all the project, designed to create new knowledge and define the starting point for subsequent Work Packages and tasks. The present Report was consolidated with the information given in each one of the seven national reports. The national reports were made in a collaborative effort by the partner organizations of each country of this consortium.

This activity follows a structured approach comprising desk research (literature review, case studies, and identification of best practices), field research (surveys and focus groups), data analysis, and the synthesis of reports. For the field research, it was performed an online survey applied to students, teachers, and professionals aiming to understand their current proficiency level in digital skills, green skills, and social and cultural skills; and to identify the training needs of these participants in the digital skills, green skills, and social and cultural skills. The focus group(s) was applied to sectoral, educational, and entrepreneurial representatives from the tourism, hospitality, and restaurant sectors aiming to understand the importance of digital, green, and social and cultural skills; the most needed skills, and their certification needs of digital, green, and social and cultural skills.

The results will inform the development of training, certification needs, and innovative practices for the project's next phases. Each country gathers data relevant to its national context, with country-level reports synthesized in this consolidated report, cross-country reports, as it is presented.

This is a report on current situations with a comprehensive mapping of the sectoral, educational, and entrepreneurial conditions in each partner country.

The final outputs of this report will provide a benchmark for subsequent work and foster the development of a sustainable, innovation-driven ecosystem.

Contents

Executive Summary	iii
Contents	iv
Index of Graphics.....	v
Index of Tables	vi
1. Introduction.....	1
2. Theoretical Background	2
2.1. Digital Skills.....	4
2.2. Green Skills	6
2.3. Social and Cultural Skills	8
3. Survey Analysis	10
3.1. Sociodemographic characterization	10
3.2. Current situation analysis.....	18
3.2.1. Digital Skills.....	18
3.2.2. Green Skills	19
3.2.3. Social and Cultural Skills	20
3.3. Future needs analysis	21
3.3.1. Digital Skills.....	21
3.3.2. Green Skills	22
3.3.3. Social and Cultural Skills	23
4. Focus Group Analysis.....	25
4.1. Digital skills	25
4.2. Green skills	26
4.3. Social and cultural skills.....	28
5. Conclusions.....	30
6. References.....	32
Annex A - Country Report of Bulgaria	37
Annex B - Country Report of Cyprus	53
Annex C - Country Report of Greece	73
Annex D - Country Report of Italy	88
Annex E - Country Report of Portugal	101
Annex F - Country Report of Slovenia	114
Annex G - Country Report of Spain	130

Index of Graphics

Graphic 1 – Participants Age: Students	11
Graphic 2 - Participants Age: Professionals.....	11
Graphic 3 - Participants Age: Teachers.....	12
Graphic 4 - Participants Gender: Students	12
Graphic 5 - Participants Gender: Professionals	13
Graphic 6 - Participants Gender: Teachers.....	13
Graphic 7 - Participants' Academic Status: Students	14
Graphic 8 - Participants' Academic Status: Professionals	14
Graphic 9 - Participants' Academic Status: Teachers	15
Graphic 10 - Participants Activity Sector: Students.....	15
Graphic 11 - Participants Activity Sector: Professionals.....	16
Graphic 12 - Participants Activity Sector: Teachers	16
Graphic 13 - Participants Professional Experience: Students	17
Graphic 14 - Participants Professional Experience: Professionals	17
Graphic 15 - Participants Professional Experience: Teachers	18

Index of Tables

Table 1 - Mean of the current proficiency level of Digital Skills of students, teachers, and professionals	19
Table 2 - Mean of the current proficiency level of Green Skills of students, teachers, and professionals	20
Table 3 - Mean of the current proficiency level of Social and Cultural Skills of students, teachers, and professionals	21
Table 4 - Mean of the future proficiency level needed for Digital Skills of students, teachers, and professionals	22
Table 5 - Mean of the future proficiency level needed for Green Skills of students, teachers, and professionals	23
Table 6 - Mean of the future proficiency level needed for Social and Cultural Skills of students, teachers, and professionals	24

1. Introduction

Sustainability is a current concern for society in general and, in particular, for all sectors of activity, following the directives and concerns of the European Union.

The tourism sector is no exception, as it involves the mobility of people, both between regions within a country and between countries and continents, as well as the use of different resources on a temporary basis, which leads tourists to feel that they have little effect on the environment. At the same time, this sense of temporality leads tourists to want to make intensive use of all the resources.

However, with the growth of the tourism sector around the world, particularly in Europe, concern about its effect on the environment has been highlighted and also presented by tourists as being essential to take care and put pressure on the sector to take measures to make better use of all resources, and especially to implement environmentally friendly practices on a daily basis.

In this sense, it is becoming increasingly essential to have human resources with the right skills to implement sustainable practices in tourism companies.

This project therefore takes this concern into account and focuses on the green, digital, social and cultural skills needed to implement environmentally friendly strategies in the various activities of the tourism sector.

To this end, this phase of the project includes a study of the current and future needs for these skills (green, digital, social and cultural), as well as their importance and the need for specific certification in each of these areas for companies in the tourism sector.

To this end, this consolidated report is the result of the study carried out in each of the seven countries that make up the consortium of this project and reflects the aggregate needs of these countries in terms of green, digital, social and cultural skills.

This report is organized in six sections. It starts with the theoretical background analysing the field of digital, green, and social and cultural skills in each one of the seven countries considered in this consortium (Greece, Bulgaria, Cyprus, Italy, Portugal, Slovenia, Spain), followed by the survey analysis and the results of the focus group developed. The report ends with the main conclusions. Annexed to this report are the seven national country reports made by all the partners of each one of the countries.

2. Theoretical Background

Sustainable tourism, also known as responsible tourism, is a form of travel aimed at preserving nature, protecting cultural heritage, and promoting local economic development, ensuring a positive experience for both visitors and residents. It aligns with the principles of sustainable development, which balances economic, social, and environmental aspects to meet current needs without compromising the ability of future generations to meet theirs. Education plays a pivotal role in promoting sustainability, with a focus on teaching younger generations the impact of their choices and encouraging responsible behaviour.

The report of the World Commission on Environment and Development (WCED) represents a document that laid the foundations for the contemporary understanding of sustainable development. It was led by Gro Harlem Brundtland, former Prime Minister of Norway. The report, officially titled "Our Common Future," was published in 1987 and remains one of the most influential documents on sustainable development (summarized by Sustainable Development Goals & Knowledge Platform, 2024). Key pillars include promoting innovation, creating decent work, social equality, and the responsible use of natural resources.

In Bulgaria, the educational system in tourism includes vocational and higher education aimed at equipping individuals with skills for sustainable tourism. However, challenges remain, including a lack of trained personnel and weak industry-education links. There is a need for integrating digital, green, and social skills into tourism education to address emerging industry needs, while ongoing legislative reforms seek to improve vocational training. The National Strategy for Sustainable Development of Tourism in the Republic of Bulgaria 2014-2030 reports the following weaknesses: "Lack of accurate assessment of the needs of tourism employers for a workforce with certain characteristics and skills ; Lack of quality personnel on the labour market; Lack of personnel with training for the new professions in tourism (related to new technologies, innovations and trends in the industry); Lack of well-trained personnel in specific areas (e.g. tour guides, rehabilitators, physiotherapists, etc.).

Slovenia focuses on the concept of sustainable development, sustainable tourism, and gastronomic tourism, which are becoming increasingly important in the modern world. Sustainable development emphasizes the need for a balance between economic, social, and environmental aspects to meet the needs of current generations while caring for future generations. This country recognizes the importance of educating young generations about the impact of their decisions on the environment and society and promote the development of their critical thinking and responsible behavior.

Achieving sustainable development requires cooperation and coordination among governments, businesses, civil society, and individuals. It involves integrating sustainable aspects into decision-making processes across all sectors and at all levels of society (adapted by the United Nations Development Programme, 2024).

Spain's tourism industry saw record growth in 2023, with an increasing focus on sustainability to tackle environmental, economic, and social challenges. Sustainable tourism is now an ethical necessity, intertwined with Spain's efforts toward a green and digital transition. This dual transformation, aligned with the 2030 Agenda, aims to modernize Spain's economy and enhance sustainability, with education playing a key role in equipping the workforce with the necessary skills.

According to the Spanish Statistics Institute (INE, 2023), Spain closed 2023 with record tourism figures. Due to growth, the tourism model faces three major challenges of the 21st century: environmental,

economic, and social sustainability (UNWTO, 2023). Sustainable tourism has shifted from being an aesthetic and commercial option to an ethical necessity and an opportunity for integrated development (Martínez-Puche et al., 2019). For Spain, one of the fundamental pillars of this transition is promoting the education. Moreover, the academic training of the tourism industry workers is essential to enhance their green and digital skills. This training must facilitate to maintain the competitiveness of the sector but transforming it into a more sustainable sector with a more efficient resources use. Thus, training is considered a key factor for achieving a social and economic development of the Spanish tourism sector (Gobierno de España, 2022).

In Italy the tourism sector has undergone significant transformation in recent years. Given tourism's crucial role in the Italian economy, it is a focal point of the National Recovery and Resilience Plan (PNRR), particularly in Mission 1, which emphasizes digitization, competitiveness, culture, and tourism. Additionally, the tourism industry is increasingly focusing on data management and cybersecurity, alongside the growing adoption of contactless solutions like mobile payments and virtual assistants. Sustainability has also become a key aspect of tourism in Italy and an asset for competitiveness, leading to the development of new professions centered on sustainable tourism. The Tourism Strategic Plan 2023/27, developed by the Ministry of Tourism, emphasizes the digitization of services, retraining of human capital, and catering to tourists interested in authentic and exclusive experiences. New professions in sustainable tourism are emerging, focusing on green technologies, social inclusion, and the preservation of cultural heritage. Italy's Tourism Strategic Plan emphasizes digitalization, retraining, and offering authentic tourist experiences.

To Portugal a balance between environmental sustainability and economic growth it is crucial to create a more resilient and sustainable world, and this can be accomplished through learning skills that promote green technologies and behaviours. In the light of the fast digital transition, it is crucial to create skills that support social inclusion as well as environmental sustainability. Concerning this prompt digital transformation, lifelong learning is essential, not only regarding digital skills, but also green, social and cultural skills that provide wellbeing and a sustainable future. To build the green skills needed for new industries and jobs, as well as to adapt to new technology, people need ongoing education and training. Not only promotes social inclusion, but also reduces digital disparities, as all the people have access to digital opportunities and education. It is mandatory a comprehensive strategy to expertise development that not only promotes social inclusion and environmental sustainability, but also give people the opportunities and challenges of the digital age.

The tourism and hospitality sector in Cyprus is increasingly dependent on digital skills to enhance operational efficiency, customer engagement, and overall competitiveness. The integration of digital tools like online booking systems, social media marketing, and customer relationship management software is essential for meeting customer expectations. These technologies improve booking experiences, personalized marketing, and customer service, driving satisfaction and loyalty. In parallel with digital skills, green skills are becoming vital in tourism and hospitality as sustainability grows in importance. Cyprus, facing environmental challenges such as water shortages and rising temperatures, requires businesses to adopt sustainable practices, including energy efficiency and waste reduction. Addressing these gaps is essential for preserving Cyprus's cultural heritage and improving service quality, making the island more attractive to culturally minded travellers.

To Greece a comprehensive digital skill set, encompassing ICT proficiency, data management, and online communication, is indispensable for success in the tourism, hospitality, and restaurant sectors. On the other hand, implementing sustainable business practices, such as resource efficiency, is crucial

for minimizing energy waste and water usage, thereby managing resources more sustainably. Adopting environmental management systems plays a vital role in reducing environmental impacts and achieving compliance with regulatory requirements. The Greek tourism sector urgently needs sustainable development to align travellers' preferences for eco-friendly travel with industry practices. To address these challenges, Greek tourism businesses need to integrate sustainability into their strategies, invest in innovative solutions, and collaborate with stakeholders.

The development of green, social, and digital skills is essential for building a resilient and sustainable tourism sector. Therefore, sustainable tourism, supported by continuous education and skill development, is a critical pathway for fostering environmental stewardship, economic growth, and social inclusion. Many countries are embracing digital transformation to achieve sustainability goals, ensuring the long-term viability of their tourism sectors. The intersection of digital skills, sustainable development, and tourism is becoming increasingly important as these areas converge to foster more efficient, eco-friendly, and socially responsible practices. Digital technologies can enhance sustainable tourism, allowing businesses to offer better services while reducing environmental impacts and supporting local communities.

2.1. Digital Skills

Digital skills play a critical role in collecting and analysing data related to tourist behaviour and environmental impacts. By understanding visitor patterns, tourism operators can manage visitor flow, reduce overcrowding, and minimize environmental degradation (Official Journal of the European Union, 2024). Data-driven strategies enable stakeholders to identify and mitigate negative effects of tourism, ensuring that development aligns with sustainability goals.

Moreover, data analysis can monitor the effectiveness of eco-friendly initiatives, providing insights that help destinations adjust their practices to enhance sustainability. Real-time data collection tools such as sensors and mobile apps can track pollution levels, energy consumption, and water usage, allowing operators to react promptly to minimize their environmental footprint (Martínez-Puche et al., 2019).

Digital marketing is essential in promoting sustainable tourism options. Online platforms and social media allow tourism businesses to reach eco-conscious travellers, showcasing eco-friendly accommodations and activities. Virtual tours, augmented reality (AR), and other digital innovations offer prospective travellers previews of destinations, helping them make more informed, sustainable choices (Leonidou et al., 2020). These technologies reduce unnecessary travel and encourage responsible tourism practices.

Furthermore, digital marketing tools enable personalized engagement with potential tourists, offering targeted content that promotes environmentally friendly options. By using these platforms, businesses can communicate their commitment to sustainability, building trust and loyalty among eco-minded consumers (Altun et al., 2024).

The rise of e-commerce and online booking platforms has streamlined the process of choosing eco-friendly accommodations and services. Digital platforms provide consumers with comprehensive information about sustainability practices, from energy-efficient hotels to low-carbon transportation options. By facilitating easy access to eco-friendly choices, these systems encourage tourists to select sustainable options (European Commission, 2022).

These platforms also allow businesses to track customer preferences and feedback, helping them continuously improve their offerings. As customers become more aware of sustainability, businesses that integrate eco-friendly practices into their digital operations are more likely to attract a growing base of conscientious travellers (Martínez-Puche et al., 2019).

Geographic Information Systems (GIS) technology is another digital tool that significantly contributes to sustainable tourism. GIS allows for the mapping and planning of tourist destinations in ways that promote environmental conservation. With GIS, businesses and governments can design and manage spaces to avoid over-tourism, protect ecosystems, and guide tourists toward less crowded, sustainable attractions (Alt, 2021).

Concerning digital skills Italy considers that the changes that have affected this sector in recent years are numerous and has substantially changed the way Tourism is done. Precisely because of the importance of Tourism to the Italian economy, the sector is at the center of a major reform plan within the National Recovery and Resilience Plan (so-called PNRR). In particular, Mission 1 of the plan is dedicated to "Digitization, competitiveness, culture and tourism" and among the interventions planned for the five-year period 2021-2026 are the creation of a digital tourism hub and a series of integrated funds to boost business competitiveness. Just as in other industries, data valorisation is becoming central in tourism and the cultural sector in order to collect, manage and use data strategically. Cybersecurity and data protection solutions are also emerging in this area, which are now indispensable for any business. Contactless solutions are also growing, for example: payment options from mobile (Apple Pay, Google Pay) or remote (Pay-by-link), home automation devices, virtual assistants or self check-in systems.

Digital skills are increasingly critical in Cyprus's tourism and hospitality sector, enhancing efficiency, customer engagement, and competitiveness. The integration of digital tools, such as online booking systems and social media marketing, has become essential for meeting customer expectations and improving services. To stay competitive, businesses in Cyprus must focus on upskilling their workforce, ensuring growth, improving customer experiences, and solidifying the country's global tourism status.

To Portugal, digital talents encompass a broad range of competencies related to computer hardware, digital devices, software, and applications, essential for modern industries. As companies increasingly rely on digital technology for communication, data management, and operations, employees benefit from knowing how to utilize these tools effectively. However, digitalization also brings challenges, particularly in terms of social sustainability. While it creates new job opportunities in tech-related fields, it can lead to job displacement in traditional sectors, exacerbating social inequalities. Disadvantaged groups are more vulnerable to being excluded from the benefits of digital transformation. Continuous learning and development are essential, as leaders must continually update their digital skills to address these evolving challenges.

In Greece opinion, in the tourism, hospitality, and restaurant sectors, digital skills are paramount for enhancing operational efficiency and maintaining a competitive edge. Implementing ICT systems is crucial, involving the use of innovative models to streamline operations and confront market competition effectively. E-business frameworks play a significant role in reducing transaction costs and time, facilitating smoother business processes. Proficiency in data management and analysis is essential for customer relationship management (CRM). By using digital tools to collect and analyze customer data, businesses can understand market trends and consumer needs, ensuring a more personalized and efficient service delivery. Transitioning from traditional physical asset management to managing knowledge assets fosters a more informed and agile business approach, crucial for staying

ahead in a dynamic market. Digital transformation is particularly critical for the Greek tourism sector, impacting all aspects of the value chain from decision-making to service delivery.

Spain considers that technological, commercial, and job changes make digital competence a need for tourism professionals. The report of the Secretaría de Estado de Turismo (2024) emphasizes the importance of integrating in the Spanish tourism sector emerging technologies that range from computerization and data literacy, communication and cooperation, digital content creation to digital safety, among others. Even more, digitalization is one of the areas where there is considerable room for improvement, as Spain ranks 27th in “ICT readiness” according to the World Economic Forum's report on tourism competitiveness (World Economic Forum, 2019). The digital transition must be approached from two perspectives. The first one is focused on the need to promote and accelerate the digital transformation of all stakeholders in a sustainable and inclusive manner. The second one emphasizes the fact of ensuring a fair digital transformation process, paying attention to the design of all the necessary measures, to address the transition period and to generate confidence in the future (SEGITTUR, 2023).

To Slovenia, the intersection of digital skills, sustainable development, and tourism is a crucial area for promoting eco-friendly practices and enhancing tourist experiences. Digital tools can support sustainability efforts in several key-ways, such as Data Analysis and Management, Digital Marketing, E-commerce and Online Booking Systems and Geographic Information Systems (GIS) and Mapping. By integrating digital skills with sustainable practices, tourism can become more efficient and environmentally friendly, benefiting tourists, local communities, and the environment (Official Journal of the European Union, L394; 13-18).

In Bulgaria the development of digital skills is set as a priority in several national strategies. The National Strategy for Sustainable Development of Tourism in Bulgaria (2014–2030) emphasizes the impact of technological advancements on tourism but notes the need for more robust integration of digital skills in the sector. In summary, despite efforts to enhance digital skills in Bulgaria, the country must intensify its efforts, particularly in tourism, to remain competitive and meet EU targets.

2.2. Green Skills

Green skills are essential for advancing sustainable development and addressing environmental challenges across various sectors, including tourism and hospitality. These skills, which emphasize environmental responsibility and efficient resource management, are increasingly being integrated into educational programs and industry practices to promote sustainability. Education, industry collaboration, and supportive government policies play a critical role in fostering green skills and ensuring a sustainable future.

In the tourism and hospitality sector, green skills involve sustainable practices such as energy efficiency, waste reduction, water conservation, and the adoption of eco-friendly products. These practices help reduce the environmental footprint of tourism-related activities. For example, hotels and restaurants are adopting green initiatives like using renewable energy, managing waste, and optimizing resource use to improve sustainability.

To Cyprus, Tourism and hospitality industries are increasingly associated with the need for more initiatives on the adoption of green skills to ensure sustainability and environmental responsibility. Such initiatives refer to energy efficiency, waste reduction, water conservation, and adoption of eco-

friendly products and processes, to reduce the footprint of the tourism and hospitality sectors. Cyprus as a small island absorbs intensive tourism activity during warm months and faces considerable climate challenges. Severe water shortages and increased temperatures affect tourism activities.

In recent years, sustainable tourism has gained importance in Italy. Increasing attention to land conservation and the environment has led, in particular, to a great emphasis on sustainable tourism. A cultural shift that has led to the emergence of new tourism-related professions, each with a unique and significant role in ensuring a travel experience that is not only comfortable and unique, but also ethically sound.

For Greece, green skills are essential in the tourism, hospitality, and restaurant sectors for promoting sustainability and meeting regulatory standards. Implementing sustainable business practices, such as resource efficiency, is crucial for minimizing energy waste and water usage, thereby managing resources more sustainably. Adopting environmental management systems plays a vital role in reducing environmental impacts and achieving compliance with regulatory requirements. The Greek tourism sector urgently needs sustainable development to align travellers' preferences for eco-friendly travel with industry practices. To address these challenges, Greek tourism businesses need to integrate sustainability into their strategies, invest in innovative solutions, and collaborate with stakeholders. Government initiatives should include clear strategies, financial incentives, and a national sustainable tourism program to standardize and promote sustainability practices. This combined effort is essential for the sector's long-term resilience and competitiveness.

In Spain technical and engineering skills are essential for research and development (R&D) projects that aim at moving forward to the green transition through actions, such as: mitigating climate change, establishing risk prevention plans, improving the energy efficiency on heating, ventilation, and air conditioning (HVAC), using thermal shells, providing efficient lighting, and facilitating renewable energy systems, among others (Ministerio de Industria, Comercio y Turismo, 2022). Skills in operations management are also crucial for decarbonizing the tourist sector and foster sustainable mobility. It is essential for the implementation of digital systems related to a better carbon footprint management and the reduction of CO2 emissions. These new practices represent an opportunity for the sector.

To Slovenia green skills are essential for advancing sustainable development and mitigating environmental challenges. By integrating these skills across various sectors, individuals and organizations can contribute to a more sustainable future. Education and training, industry collaboration, and supportive government policies are key to developing and promoting green skills effectively.

In Bulgaria, in recent years, the need for up-to-date knowledge and skills in sustainable development in the country's tourism industry has become increasingly evident. The development of the tourism industry globally shows the need for rapid adaptation of the Bulgarian tourism product to the novelties of the world market. This makes it even more necessary to constantly update the knowledge and skills of professionals in the industry.

According to Portugal, it is crucial to address skill gaps to ensure that workers can thrive in a green economy, with policies and training programs that equip the workforce with the necessary green competencies. This aspect is defended by Auktor, (2020) that claims that *“the need to transition towards more environmentally sustainable modes of production and consumption has become an imperative both for developed as well as for developing countries.”* (pp. 9). To Auktor (2020) it is necessary concerted efforts from governments, industries, and educational institutions to create

training programs that meet the demands of a green economy. Effective policy frameworks, public-private partnerships, and international cooperation are essential to ensuring that all are prepared for the challenges and opportunities of a sustainable industrial future.

In summary, the demand for green skills is rising, considering the transition toward a greater environmental sustainability, and the education, the policy support, and the industry collaboration is fundamental to ensure that the human resources meet the needs of a greener world.

2.3. Social and Cultural Skills

Social and cultural skills are crucial for fostering understanding, cooperation, and inclusivity across various settings, particularly in tourism and hospitality. These skills enable individuals and organizations to create harmonious, effective, and culturally rich environments. The development of these competencies involves education, experiential learning, mentorship, and continuous self-improvement, laying the foundation for a more culturally aware workforce. In the tourism sector, the importance of these skills is increasingly recognized as essential for enhancing visitor experiences and promoting cultural heritage.

Promoting social and cultural competencies is not only about improving service quality but also about preserving cultural heritage and promoting sustainable tourism practices. Andriotis and Vaughan (2018) stress the importance of training hospitality professionals in intercultural communication and cultural awareness, enabling them to cater to diverse clientele. Similarly, Marneros et al. (2020) identify human relations and communication as the most crucial competencies, surpassing leadership and financial skills in importance for the tourism sector.

In Cyprus's tourism and hospitality sector social and cultural skills are vital, greatly enhancing visitor experiences and fostering cultural understanding. These skills, such as effective communication, cultural sensitivity, and the ability to interact with diverse groups, are crucial for delivering exceptional service to international tourists. Enhancing these skills within the workforce not only improves service quality but also helps preserve and promote Cyprus's rich cultural heritage, making the island more appealing to culturally interested travelers.

To Greece, social and cultural skills are pivotal for fostering a positive and inclusive environment in the tourism, hospitality, and restaurant sectors. Understanding and respecting diverse cultural backgrounds and social norms enhance the guest experience and promote cultural sensitivity. Effective communication and interpersonal skills are essential for engaging with guests and addressing their needs, ensuring a high level of customer satisfaction. Training and education programs focused on cultural awareness and social responsibility encourage employees to embrace diversity and contribute positively to the community. Continuous improvement and adaptation to changing tourist demands are key to the sector's long-term success and sustainability. These skills help create inclusive experiences, foster a respectful work environment, and support the overall sustainability of the tourism, hospitality, and restaurant sectors in Greece.

Portugal states that social competences are acquired throughout development and are fundamental for adapting to different contexts and situations throughout life, and well-developed competences allow you to adapt correctly to professional and personal life. Behaviours that allow connections and engagement with other people are referred as social and cultural skills. It also entails adapting to social norms, which vary based on the setting and culture. In a world of constant change and accelerated

digital transformation it is necessary to acquire a wide range of talents. Employees need success in both personal and professional spheres, and they must have the capacity to develop and apply their abilities. Both hard and soft skills must be developed and maintained for them to succeed, as employers look for the perfect match.

In Italy, the application of social and cultural skills in tourism is vital for fostering positive interactions between locals and visitors, preserving the country's rich cultural heritage and traditions, and enhancing the overall tourist experience. Moreover, the Italian culture of hospitality is widely recognized, with Italians often displaying a warm and welcoming attitude towards tourists, enhancing their overall travel experience. Tourism professionals, including guides and hotel staff, are often multilingual, proficient in languages such as English, French, German, and Spanish. In addition, the tourism sector places a strong emphasis on preserving cultural landmarks, traditions, and art. ~

To Slovenia, social and cultural skills are essential for fostering understanding, cooperation, and inclusivity in a variety of settings. By developing these skills, individuals and organizations can create more harmonious, effective, and culturally rich environments. Education, experiential learning, mentorship, and continuous self-improvement are key to enhancing these vital skills.

The curricula of tourism universities in Bulgaria include a number of disciplines that contribute to the acquisition of adequate knowledge and social and cultural skills by students. The subjects include Psychology, Philosophy, Art History, Cultural Tourism and Cultural Geography, Customer Care, Business Communication, among others. The studies for Hospitality Administrator, for example, includes the acquisition of teamwork skills, conducting effective business communication, observing ethical standards of behaviour and participating in the development of an ethical working environment, among others. In reviewing the curricula and programmes, the slight dominance of digital skills development at the expense of social skills is noticeable and this calls for a greater emphasis on the subject in curricula and programmes, as well as in continuing education.

Social and cultural skills are indispensable for the tourism and hospitality sectors across various countries, helping to create inclusive experiences and maintain a competitive edge. While education systems in some countries, need to better integrate these skills into their curricula, the importance of these competencies in ensuring customer satisfaction, preserving cultural heritage, and fostering sustainable tourism practices cannot be overstated. By emphasizing the development of communication skills, cultural sensitivity, and adaptability, the tourism sector can continue to thrive in an increasingly interconnected and diverse global market.

3. Survey Analysis

Context

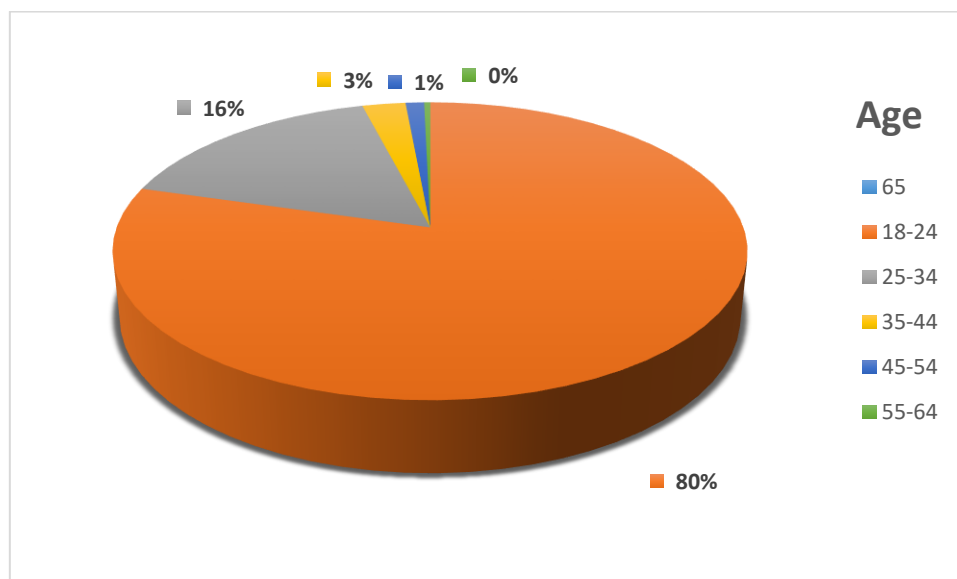
Population	Students, professionals, and teachers.
Data Collection Period	June-August 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education, and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	Online and physical survey
Total Samples Collected	273 of students/learners 319 of professionals/entrepreneurs 238 of teachers/trainers

According to the literature review, a survey was developed to achieve our main objectives. The survey had three main sections: Sociodemographic characterisation, Current skills situation, and Future skills needs. The sociodemographic characterisation consisted in closed questions about gender, age, academic status, activity sector, and professional experience. The Current skills situation had a set of digital, green, and social and cultural skills in which the participant should assess their current level of skill proficiency. It used an 8-point Likert scale where: Foundation level 1; Foundation level 2; Intermediate level 3; Intermediate level 4; Advanced level 5; Advanced level 6; Highly specialized level 7; Highly specialized level 8. Lastly, in the Future skills needs, the participants had to assess what should be in the future their proficiency level in the same digital, green, and social and cultural skills.

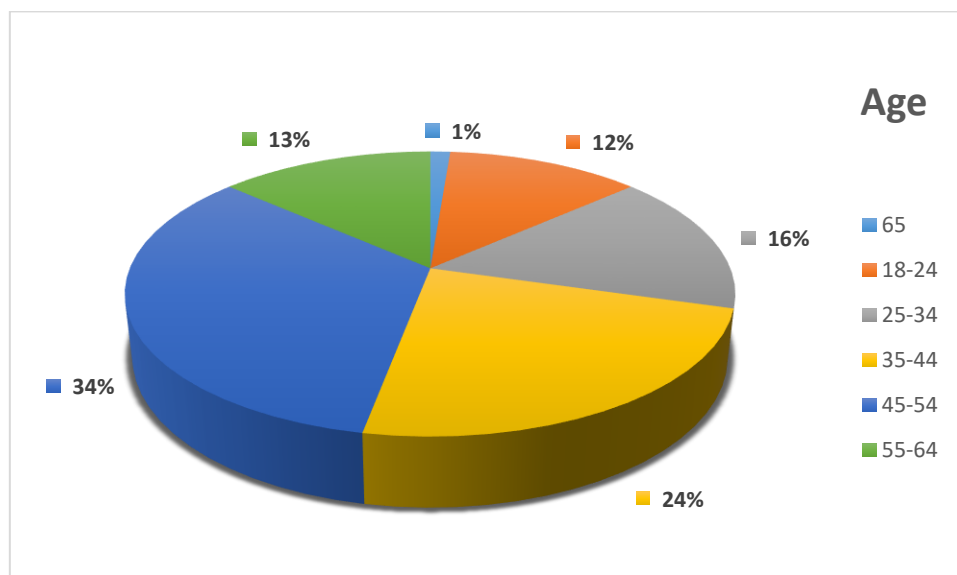
3.1. Sociodemographic characterization

The sample analysed had 803 participants: 273 were students, 211 were teachers, and 319 were professionals. Regarding their age, most of the students (Graphic 1) were between 18-24 years (n=217, 80%). Regarding the professionals' group (graphic 2), most participants had ages between 35-44 and 45-54 years old. For the teachers' group (Graphic 3), almost half of the participants had ages between 45-54 and 55-64 years old.

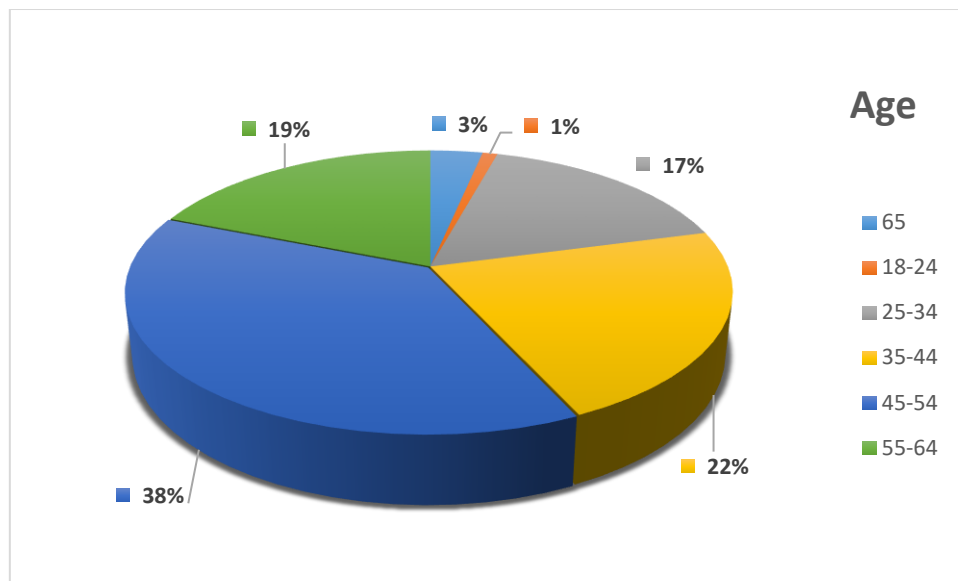
Graphic 1 – Participants Age: Students/Learners



Graphic 2 - Participants Age: Professionals/Entrepreneurs

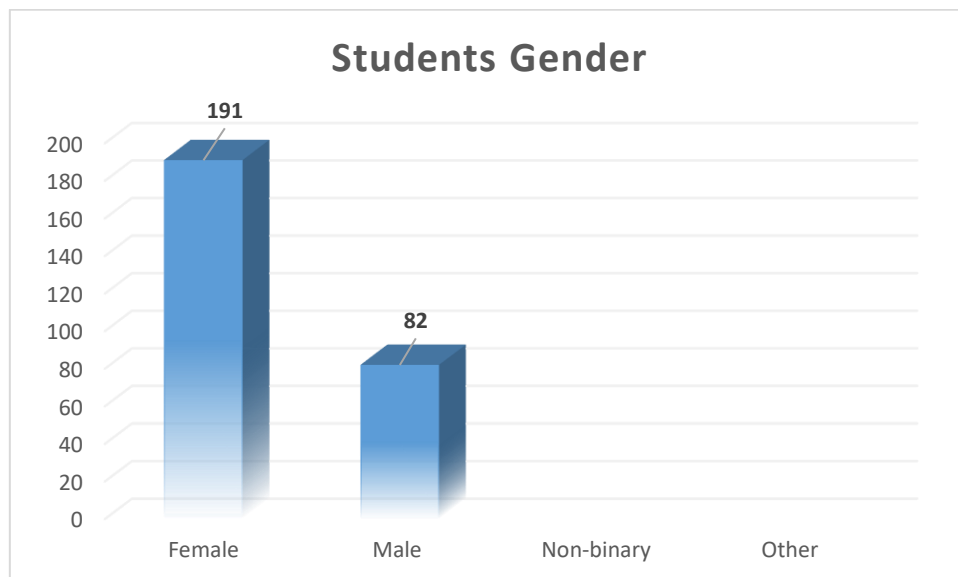


Graphic 3 - Participants Age: Teachers/Trainers

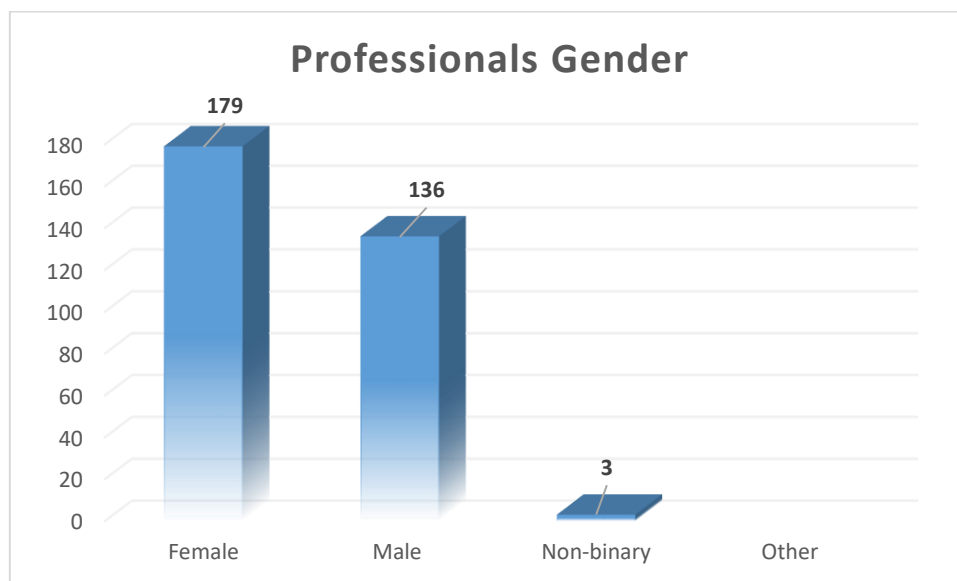


In Graphics 4, 5, and 6 we can observe the gender distribution. In the students' group (Graphic 4), we had more females (70%). In the professionals' group (Graphic 5) we had more females (56%). And the same occurred in the teachers' group (Graphic 6).

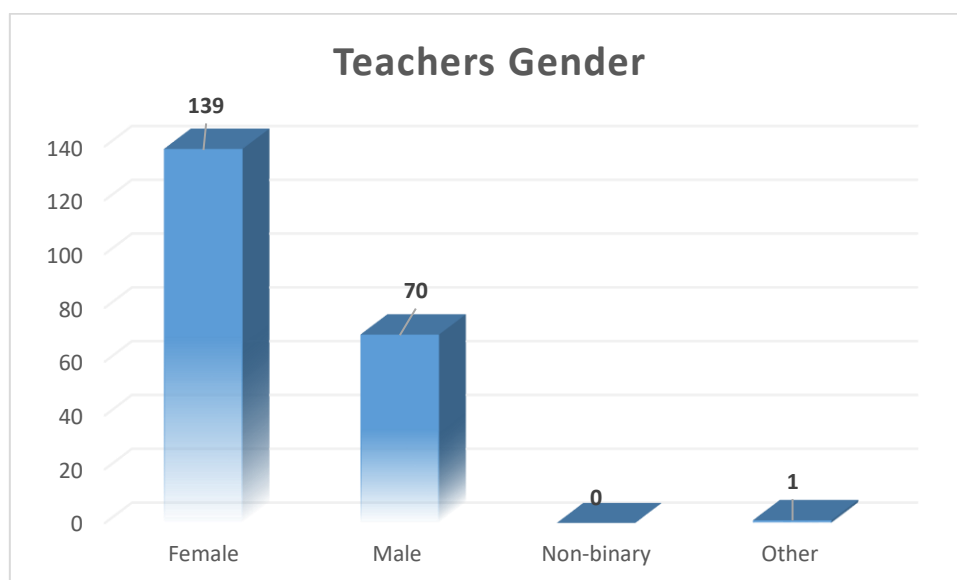
Graphic 4 - Participants Gender: Students/Learners



Graphic 5 - Participants Gender: Professionals/Entrepreneurs

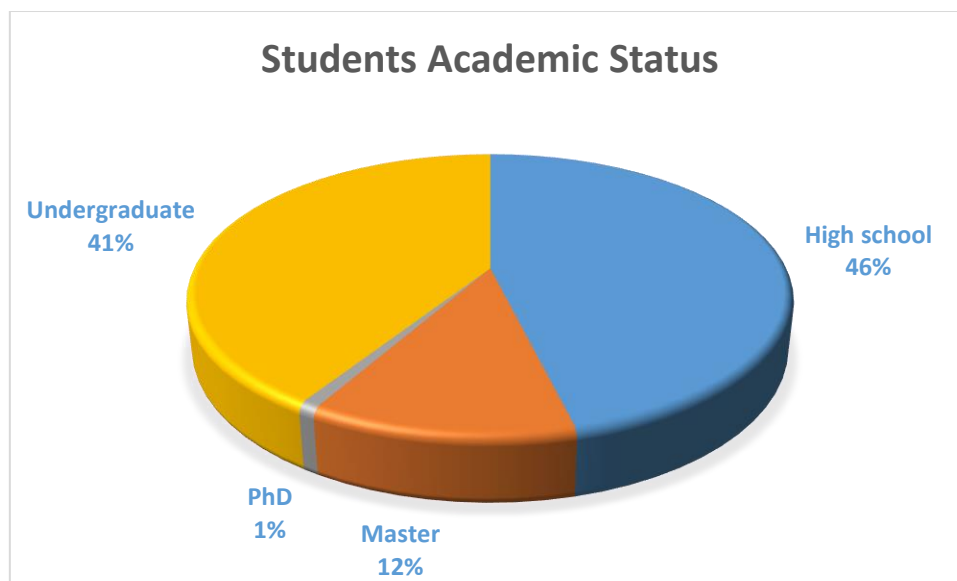


Graphic 6 - Participants Gender: Teachers/Trainers

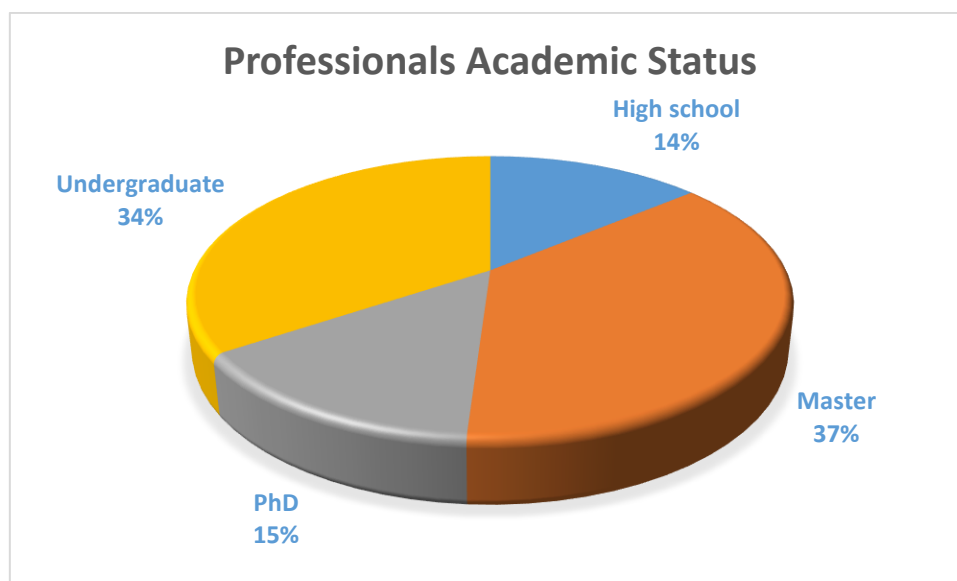


For the academic status, most of the student participants (Graphic 7) were in high school (46%) or were undergraduate (41%). In the professionals' group (Graphic 8), most of them had higher education (86%). In the same way, in the teachers' group (Graphic 9), the majority of the participants had master's (55%) or PhD (31%).

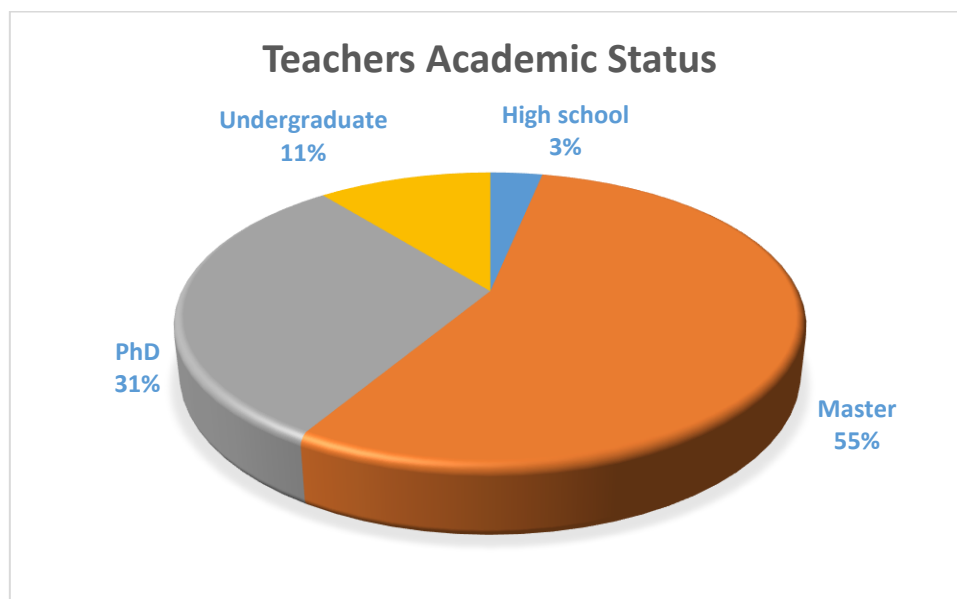
Graphic 7 - Participants' Academic Status: Students/Learners



Graphic 8 - Participants' Academic Status: Professionals/Entrepreneurs

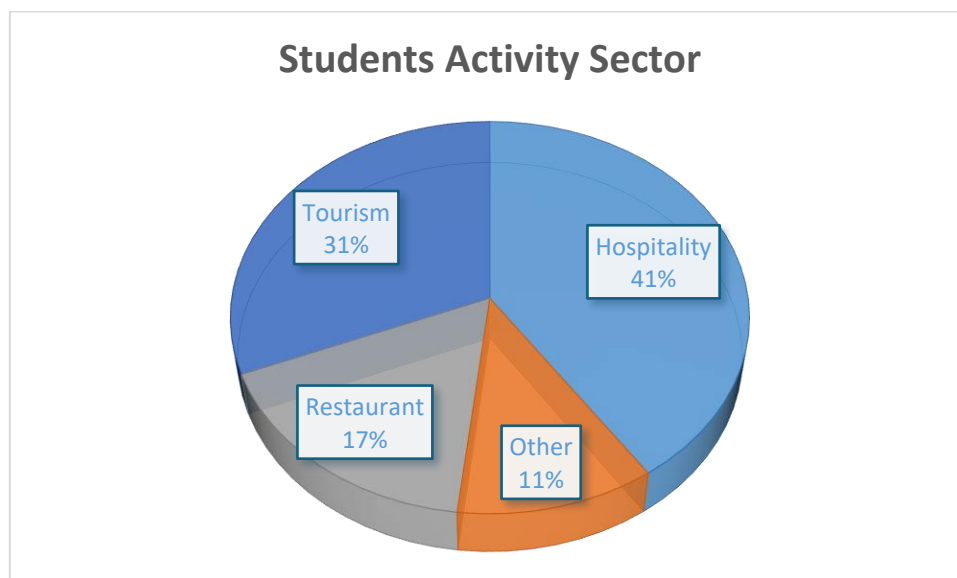


Graphic 9 - Participants' Academic Status: Teachers/Trainers



When analysing their activity sector, in the students' group (Graphic 10), most of them were from hospitality (41%) or tourism (31%). In the professionals' group (Graphic 11), the majority of the participants were from the tourism sector. For the teachers' group (Graphic 12), the majority of the participants were from tourism (36%) or hospitality (20%). In all groups, the other activity sectors were business, education, and social sciences.

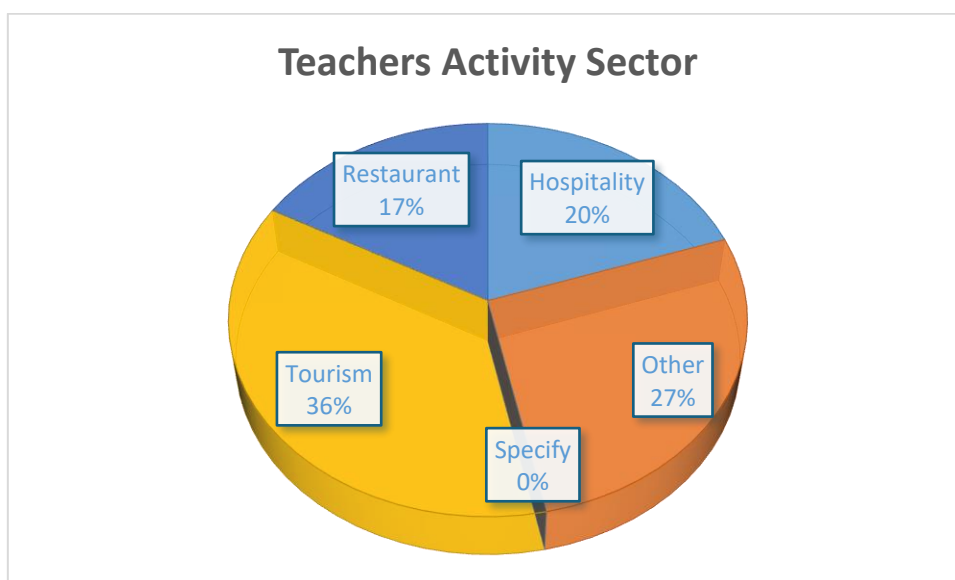
Graphic 10 - Participants Activity Sector: Students/Learners



Graphic 11 - Participants Activity Sector: Professionals/Entrepreneurs

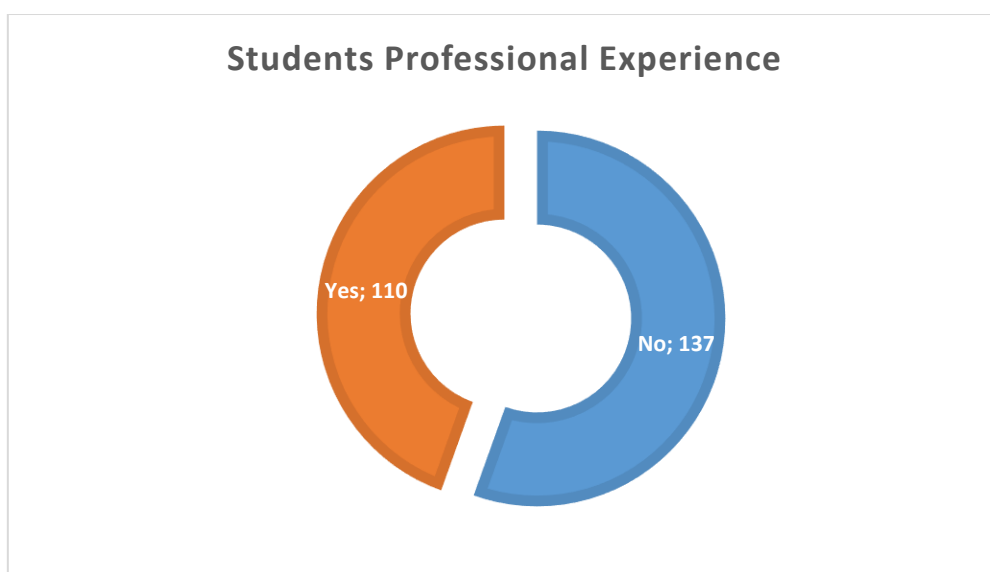


Graphic 12 - Participants Activity Sector: Teachers/Trainers



For the students' group, there was a huge balance between those who had professional experience and the ones that do not have professional experience (Graphic 13). The average of their professional experience is 3,14 years. In the professionals' group (Graphic 14), 91,3% (n=262) had professional experience and their average was 15,5 years old. Regarding the teachers' group (Graphic 15), 91% (n=214) had professional experience and the average of their professional experience was 17,03 years old.

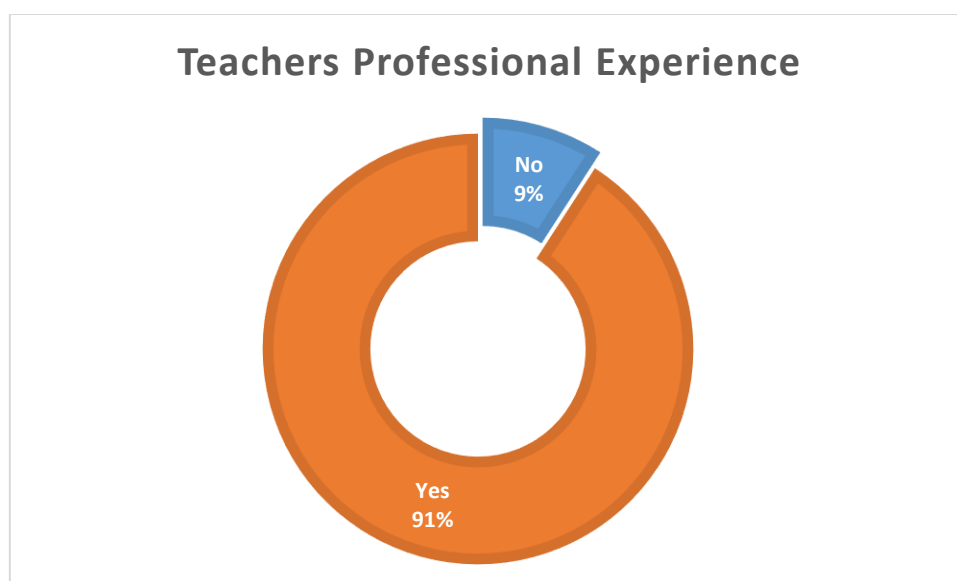
Graphic 13 - Participants Professional Experience: Students/Learners



Graphic 14 - Participants Professional Experience: Professionals/Entrepreneurs



Graphic 15 - Participants Professional Experience: Teachers/Trainers



3.2. Current situation analysis

3.2.1. Digital Skills

In general, students assess their current proficiency level of digital skills at an intermediate level. The “Use of digital technologies to create guest experiences” is the only one that was assessed at an advanced level (5.41). Skills with a lower level of proficiency were “Use of generative AI applications” and “Web & app development & programming”.

Regarding the assessment of the teachers, their proficiency level in digital skills varies between a foundation and an advanced level. Teachers reported a mean higher advanced level for the skills “Use of digital technologies to create guest experiences” and “Use of office applications”. A foundation proficiency level was reported for the digital skill “Use of generative AI applications”.

The professionals’ group had considered the highest proficiency level for the digital skills “Use of digital technologies to create guest experiences” and “Use of office applications” and the lowest values for “Use of generative AI applications” and “Web & app development & programming”.

Table 1 - Mean of the current proficiency level of Digital Skills of students, teachers, and professionals

Digital Skills	Students/ Learners	Teachers/ Trainers	Professionals/ Entrepreneurs
Secure information processing	4,32	4,87	4,50
Use of office applications	4,54	5,21	5,26
Use of digital marketing systems and communications platforms	4,89	5,15	5,08
Digital privacy and ethics	4,55	4,72	5,13
Digital business analysis, business intelligence, data-driven decision making	4,13	3,67	4,07
Use of robots	4,33	3,70	3,48
Use of digital technologies to create guest experiences	5,41	5,93	5,71
Use of generative AI applications	3,53	2,81	3,10
Web & app development & programming	3,77	3,04	3,39

3.2.2. Green Skills

Regarding green skills (Table 7), students assessed all the skills at an intermediate level of proficiency. The skills with a higher mean level of proficiency were “Understanding of environmental laws and regulations” and “Green procurement and greening the supply chains”. On the opposite, skills with lower mean proficiency levels were “Efficient use of resources (e.g. energy, water, materials)” and “Measurement and management of Waste”.

In the teachers’ group, all skills had a mean proficiency level of intermediate with the highest rates for the skill “Understanding of environmental laws and regulations” and the lowest rate for the “Measurement and management of CO2 emissions”.

The professionals assessed the highest proficiency level for the skills “Understanding of environmental laws and regulations” and “Green procurement and greening the supply chains”. On the opposite, the skills with lower proficiency level were “Measurement and management of CO2 emissions” and “Measurement and management of CO2 emissions”.

Table 2 - Mean of the current proficiency level of Green Skills of students, teachers, and professionals

Green Skills	Students/ Learners	Teachers/ Trainers	Professionals/ Entrepreneurs
Efficient use of resources (e.g. energy, water, materials)	3,71	3,64	4,16
Promotion and encouragement of sustainable practices among guests	4,35	4,75	5,16
Understanding of environmental laws and regulations	4,98	4,95	5,47
Communication about the organization's efforts towards a green economy	4,05	3,77	4,27
Measurement and management of Waste	3,75	3,48	4,07
Measurement and management of CO2 emissions	3,81	3,58	4,05
Adoption of environmental certifications and management systems	4,19	4,18	4,82
Green procurement and greening the supply chains	4,67	4,85	5,27
Green marketing and product development	4,56	4,71	5,24
Use of technology to speed up the green transition	3,88	3,76	4,12

3.2.3. Social and Cultural Skills

Students consider that they have an advanced level of all social and cultural skills (Table 8). The skills with a higher mean proficiency level were "Foreign languages" and "Understand the cultural setting of the own destination and share this information with guests". The skills with lower mean were "Adaptability to change and handle unexpected situations" and "Resolve conflicts".

In the teachers' group, all the participants assessed their proficiency level as advanced. The highest rates were reported for the skills "Foreign languages" and "Understand the cultural setting of the own destination and share this information with guests".

Professionals considered higher proficiency level in the skills "Communicate effectively with guests and colleagues" and "Support diversity, equality, and inclusivity".

Table 3 - Mean of the current proficiency level of Social and Cultural Skills of students, teachers, and professionals

Social and Cultural Skills	Students/ Learners	Teachers/ Trainers	Professionals/ Entrepreneurs
Provide excellent customer service	5,61	5,89	6,47
Communicate and interact with people from different cultural and social backgrounds	5,38	6,01	6,11
Support diversity, equality, and inclusivity	5,66	5,94	6,55
Communicate effectively with guests and colleagues	5,71	5,95	6,62
Adaptability to change and handle unexpected situations	5,25	5,13	5,71
Communicate effectively with guests in their native language	5,65	6,16	6,24
Resolve conflicts	5,40	5,45	5,46
Understand the cultural setting of the own destination and share this information with guests	5,71	6,20	6,51
Work effectively in a team	5,47	5,58	5,64
Analytical skills	5,41	5,82	6,02
Critical thinking	5,84	5,87	6,07
Learning-oriented	5,48	5,57	5,95
Foreign languages	5,85	6,21	6,37

3.3. Future needs analysis

3.3.1. Digital Skills

Table 9 summarizes the perception of all the participants about what should be their proficiency level of digital skills in the future.

Students and teachers consider that should have an advanced level of proficiency in almost all digital skills. For the students, the skills considered with an intermediate mean level of proficiency were “Use of generative AI applications” and “Web & app development & programming”. Digital skills with a higher mean level were “Use of digital technologies to create guest experiences” and “Use of digital marketing systems and communications platforms”.

Regarding the teachers’ group, the skills with higher mean levels were “Use of digital technologies to create guest experiences” and “Use of office applications”.

Professionals’ group valued with higher proficiency level the skills “Use of digital technologies to create guest experiences” and “Use of office applications”. The skills considered with lower average were “Web & app development & programming” and “Use of generative AI applications”.

Table 4 - Mean of the future proficiency level needed for Digital Skills of students, teachers, and professionals

Digital Skills	Students/ Learners	Teachers/ Trainers	Professionals/ Entrepreneurs
Secure information processing	5,43	5,28	5,51
Use of office applications	5,51	6,06	5,81
Use of digital marketing systems and communications platforms	5,53	5,57	5,62
Digital privacy and ethics	5,47	5,30	5,76
Digital business analysis, business intelligence, data-driven decision making	5,32	4,97	5,00
Use of robots	5,28	5,02	5,00
Use of digital technologies to create guest experiences	5,75	6,18	6,18
Use of generative AI applications	4,83	4,09	4,69
Web & app development & programming	4,90	4,76	4,80

3.3.2. Green Skills

Regarding green skills, Table 10 summarises the perceptions of all participants about the future proficiency level needed.

The students' group considered that all green skills would be required at an advanced level. Skills with a higher mean were "Understanding of environmental laws and regulations", "Green procurement and greening the supply chains" and "Green marketing and product development".

In the same way, teachers perceive their future green skills need at an advanced level. The skills with higher levels were "Promotion and encouragement of sustainable practices among guests" and "Understanding of environmental laws and regulations".

The skills considered by professionals for higher proficiency levels were "Green marketing and product development" and "Green procurement and greening the supply chains". The skills with lower proficiency levels were "Efficient use of resources (e.g. energy, water, materials)" and "Communication about the organization's efforts towards a green economy".

Table 5 - Mean of the future proficiency level needed for Green Skills of students, teachers, and professionals

Green Skills	Students/ Learners	Teachers/ Trainers	Professionals/ Entrepreneurs
Efficient use of resources (e.g. energy, water, materials)	5,15	5,55	5,27
Promotion and encouragement of sustainable practices among guests	5,36	6,11	5,79
Understanding of environmental laws and regulations	5,66	6,05	5,93
Communication about the organization's efforts towards a green economy	5,20	5,63	5,35
Measurement and management of Waste	5,17	5,59	5,64
Measurement and management of CO2 emissions	5,04	5,47	5,28
Adoption of environmental certifications and management systems	5,28	5,84	5,73
Green procurement and greening the supply chains	5,51	6,03	5,95
Green marketing and product development	5,51	5,64	6,04
Use of technology to speed up the green transition	5,25	5,45	5,74

3.3.3. Social and Cultural Skills

Table 11 summarises the assessment of all participants regarding their future needs of social and cultural skills.

Students and teachers assessed the future need for all social and cultural skills at an advanced level (with a mean higher than 6). For the students' group, skills with a higher proficiency level are "Foreign languages" and "Provide excellent customer service".

Regarding the teachers' group, the skills with the highest rates were "Communicate effectively with guests and colleagues" and "Understand the cultural setting of the own destination and share this information with guests".

The skills with higher proficiency levels for the professionals were "Communicate effectively with guests and colleagues" and "Foreign languages". On the other hand, the skills with lower mean rates were "Resolve conflicts" and "Adaptability to change and handle unexpected situations".

Table 6 - Mean of the future proficiency level needed for Social and Cultural Skills of students, teachers, and professionals

Social and Cultural Skills	Students/ Learners	Teachers/ Trainers	Professionals/ Entrepreneurs
Provide excellent customer service	6,29	6,72	6,57
Communicate and interact with people from different cultural and social backgrounds	6,25	6,64	6,74
Support diversity, equality, and inclusivity	6,23	6,60	6,75
Communicate effectively with guests and colleagues	6,27	6,80	6,91
Adaptability to change and handle unexpected situations	6,05	6,02	6,23
Communicate effectively with guests in their native language	6,17	6,79	6,77
Resolve conflicts	6,10	6,12	6,15
Understand the cultural setting of the own destination and share this information with guests	6,22	6,77	6,67
Work effectively in a team	6,19	6,49	6,43
Analytical skills	6,20	6,65	6,62
Critical thinking	6,18	6,75	6,63
Learning-oriented	6,10	6,37	6,48
Foreign languages	6,32	6,63	6,86

4. Focus Group Analysis

Context

Participants	Sectoral, educational, entrepreneurial.
Data Collection Period	May and June 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education, and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	online and physical focus group
Total Samples Collected	24 of sectoral 28 of educational 21 of entrepreneurial

According to the literature review, a script was developed to support the focus group development according to our main objectives. The script has an initial question about what the most required skills in their activity sector are, and then it was organized in three categories related to digital, green and social and cultural skills. In each of these categories it was discussed the importance of that type of skill, the most needed skills in each category and the need of certification in each category.

The procedure was to carry out one focus group in each of the seven countries of the consortium, using the same script and with the same type of participants, representatives of the sectoral, educational and entrepreneurial sector of tourism. Moreover, each country developed a country report of the focus group, annexed to this report.

4.1. Digital skills

According to the participants of the seven focus groups performed, digital skills, and technology in general, are very important for the tourism business sector since they improve operational and strategic efficiency, as well as decision-making in businesses. Our results arise several categories of digital skills, namely:

- (1) use of **productivity tools**, such as spreadsheets, word processors, email, etc.;
- (2) use of **specific operational tools and specialized software** applications for the main activities of the businesses, like software for hotels and catering work (software for reservations, orders, etc.). Moreover, using technology for process optimization in services (e.g., linking hotel services such as booking, room cleaning, ticketing, spa, etc);

- (3) use of **digital communication tools**, such as the web, social networks, creating videos and podcasts, and cell phones, for electronic communication with customers and partner companies, knowing how to make the most of their potential. Moreover, creating websites and using online platforms such as online booking tools, that can facilitate the accessibility of isolated locations or off traditional tourist circuits. Another aspect emerged focused on the use of digital skills to ensure accessibility for people with different types of disabilities, considering digital accessibility and online communication. When creating websites and digital platforms, easy navigation and accessible languages are necessary for the full usability of the territory by people with different types of disabilities;
- (4) using **tools for searching, selecting, organizing and managing information**, such as web search engines and specific information management systems and dissemination software;
- (5) to use **online booking systems and CRM** to improve services and provide better customer service;
- (6) use and implement **collaborative platforms** that foster teamwork and knowledge sharing, and the management of processes and tasks;
- (7) use **interactive digital technologies**, such as host manuals and task execution procedures that promote the sharing of knowledge and experiences;
- (8) to know **digital security**, namely recognizing the importance of computer systems security, data security and the application and use of GDPR standards and guidelines, as well as in terms of cybersecurity, adopting preventive behaviors when using the internet that do not expose business systems to external attacks;
- (9) to use and implement **gamification tools**: for example, with a system of achievements that can promote the commitment of teams to more environmentally friendly behaviors, and likewise be able to use these tools to encourage these same behaviors in customers; and
- (10) to learn about **artificial intelligence technologies**, particularly their potential for business, as well as the boundaries of their use. In line with that, they identified a trend to link tourism and hospitality industries with VR/AR technologies, which should be relevant not only to data management, but also with the customer experience and interaction (e.g., customers with disabilities on museums).

Regarding digital certification needs, it was identified some relevant digital certificates that can be important to have in the sector: Hosting Management Software Certifications: Like Opera, Fidelio, etc; Digital Marketing Certifications: Google Analytics, Facebook Blueprint, etc.; Cybersecurity Certifications: CISSP, CEH, etc.; LinkedIn learning; and Micro credential courses.

4.2. Green skills

The participants of the focus group believe that green thinking and green skills are becoming increasingly important in this sector of activity. Environmental knowledge and skills are even more important in the tourism industry as they not only reduce environmental impact but can also lead to cost savings and attract eco-conscious customers.

The green skills identified by participants are grouped in the following categories:

- (1) **Energy management**: to reduce energy consumption through efficient lighting and heating systems and understanding and applying technologies for the use of renewable energy sources such as solar panels.
- (2) **Water management**: to implement water saving strategies and practices, and reuse techniques, such as using low-flow devices.

(3) **Recycling and waste reduction:** to apply waste management and promotion of recycled materials and implement strategies and practices that promote the consumption of plastic, particularly when buying products in bulk and selecting suppliers that only use biodegradable packaging.

(4) **Innovation:** analyzing business processes, i.e. knowing the beginning, middle and end of the process to analyze and decide on the best, most sustainable and environmentally friendly way of using the products and resources involved in that process; using new technologies and practices to improve environmental performance; relating innovation in business processes to optimize them, reducing time and effort in carrying out tasks, improving the quality of life of employees in the company, and the reuse of materials and resources; and applying storytelling strategies to business process innovation, i.e. analyzing and understanding the history and motivation for using a resource to define and support new ways of using the same resource.

(5) **Environmental education:** to know the main concepts and principles of environmental sustainability and understanding the principles of sustainability and environmental awareness. Furthermore, to know and use strategies to raise awareness and educate customers about the need for environmental sustainability, e.g., in individual water consumption and the use of towels.

(6) **Communication and promotion of sustainability:** to inform and sensitize customers and colleagues about green practices.

(7) **Change management:** to apply concepts of change management, since adopting new practices and ways of doing things involves changing ingrained habits, which, to be successful, requires the commitment and involvement of everyone involved, both employees and customers.

(8) **Critical thinking:** to apply critical thinking to analyze work processes and implement strategies to use products and resources more efficiently, making the most of their potential; and to master the concepts and practices of environmental sustainability to be able to define strategies and actions for their application in real business situations.

(9) **Sourcing sustainable products:** selecting products and suppliers that meet environmental standards.

(10) **Compliance with environmental regulations:** understand and adhere to relevant legal requirements and regulations; to know the legislation in the business area to be able to use sustainability strategies and practices that comply with the current legislation.

(11) **Collaboration and innovation through sector:** apply collaboration and innovation strategies in production processes by promoting collaboration between companies to produce more sustainable resources, for example, producing napkins or towels with more attractive designs, dimensions and compositions that promote their reuse and life cycle, as well as reducing water consumption when washing them.

(12) **Green certifications:** to obtain and maintain ecological certifications. In this matter, some participants referred that most companies see this component as a means of communicating with their customers. In this sense, it was also mentioned that they often feel it is already a requirement imposed by tour operators. Nevertheless, it should be noted that although the more marketing and customer communication role of environmental certification was highlighted, this component can also play an educational role and introduce good environmental practices in companies, especially those that have no experience in adopting this type of practices. Other actors stated that environmental certifications are not compulsory for the tourism sector, but they can represent an advantage in procurement tenders or for tax reductions.

Moreover, the financial investment involved in certification was also highlighted, without often translating into a return in terms of adopting effective and more sustainable practices.

Nevertheless, there were identified some of the most common certificates used in this matter: CETS - European Charter for Sustainable Tourism (with 3 levels), which requires different sectoral professionals to comply with standards and guidelines. It is a participatory governance method to promote sustainable tourism and structure the activities of protected areas in the field of tourism, compatible with the needs of biodiversity protection; ISO environmental standards; green quality labels, such as Green Key, EU Ecolabel and LEED that recognize environmental responsibility; education and training programs to develop green skills and obtain relevant certifications; energy and water efficiency certifications, such as Energy Star; waste management, like certifications for proper waste management and recycling; renewable energy, such as certifications confirming the use of renewable energy sources; certifications for the sustainable supply and use of ecological products; certifications that ensure the health and safety of employees and customers; and adherence to local and international regulations for environmental management.

4.3. Social and cultural skills

The participants of all the countries were unanimous in considering social and cultural skills to be of great importance for their sector of activity. The most important social and cultural skills are the ability **to recognize the needs of others and to meet them**, teamwork, **understanding cultural differences** when working in international teams, having **cultural dialogue**, having developed **communication skills**, patience, kindness, resilience, professional attitude and in general all behaviours that **promote effective communication and satisfying relationships** between people.

Furthermore, the need to be **committed to the community** where the business is based, from knowing its culture, history, habits and particularities, to the suppliers and producers in the region, as well as the products and resources it offers.

In this sense, it is necessary to **think about processes from the perspective of the place and the community** where the business operates. Carry out historical research into the products, resources, processes, habits and customs of the region, critically analyzing these elements to define how they can be integrated and enhance the business.

It is also essential to use **communication and collaboration tools** with the surrounding community, as well as among the company's employees.

In the same vein, it is important to have the patience, time and curiosity to welcome customers so that they also feel that they are an integral part of the community in which the business operates.

These issues highlight the need for a **critical spirit and resilience** on the part of employees, i.e. knowing how to think to know how to do, and thus know how to be.

The **commitment and involvement of employees** with the company's activities, as well as with the surrounding community, will **promote collaboration, dialogue and the sharing of experiences**, and thus **teamwork** to the detriment of individualism and competition, and a healthier company and community.

They also stressed the **need for a culture and education for service**, integrating business and community into a single element.

Finally, the **integration of people with diversity and special needs** was highlighted. People who assume that they have a disability show a greater level of humility, collaboration and curiosity, which can help to create a spirit of collaboration within the whole team.

Regarding the certifications, needed certifications concern primarily gender equality, safety and security and other dimensions but those are not strictly linked with tourism.

To conclude, participants were unanimous in recognizing the importance of sustainability skills, even more than that, being an imperative area to implement for the subsistence of the sector. Therefore, we highlight four essential subjects related to sustainability skills:

- (1) **sense of belonging:** the sense of belonging is related with the company's connection to the community, from knowing its suppliers, all its products and resources, namely endogenous and seasonal ones, the history and culture of the region, including the processes and customs of the community. Essentially, the company naturally includes and integrates itself into the community in which it is based;
- (2) **business imperative:** in the sense of an imperative for the business to become attractive within the market in which it operates, as well as being forced to implement sustainability strategies, especially environmental ones, due to pressure from competitors, the business's financial backers and customers;
- (3) **re-educate:** the need to re-educate people and society about the function of each resource at their disposal and its proper use, particularly food, and thus promote its conscious and proper use, taking advantage of its full potential; and
- (4) **challenge:** implementing sustainable practices in any business is a major challenge because, although it is imperative for the business to improve its quality and positioning in the market, it requires the commitment and involvement of the companies' human resources, customers, suppliers and society in general. This commitment and involvement are fundamental on a day-to-day basis, in the actions carried out, in the willingness to learn and acquire new skills and ways of doing things that can enhance sustainable practices.

5. Conclusions

For the tourism industry to achieve all its goals, it needs to improve and develop the main 3 skills- **digital, green, and social-cultural**. Overall, the problems in the tourism sector are similar in all countries. The major challenges created by the COVID crisis to the industry have not yet decreased and may be felt for years to come. The sector's reorientation of human resources to other areas of activity makes it extremely difficult to secure quality staff with experience in tourism, and training and stimulating new staff is not quick and easy. The tourism industry, as an important sector for any economy, needs to implement new ways of thinking and action, both in terms of education, information technology, care for nature and to increase cultural interaction. People require continual education and training in order to develop the green skills required for new sectors and jobs as well as to adjust to new technology. decreases digital inequalities and encourages social inclusion to allow everyone having access to digital opportunities and knowledge. A thorough approach to skill development is required that not only encourages environmental sustainability and social inclusion but also informs individuals about the opportunities and difficulties presented by the digital era.

Thus, promoting environmental stewardship, economic growth, and social inclusion through sustainable tourism is essential, especially when it is backed by ongoing education and skill development. In order to meet sustainability targets and maintain the long-term viability of their tourism industries, many nations are embracing digital transformation.

The convergence of digital skills, sustainable development, and tourism is fostering more efficient, environmentally friendly, and socially responsible activities, making the confluence of these fields more and more significant. Digital technologies have the potential to improve sustainable tourism by enabling companies to provide better services, lessen their negative effects on the environment, and benefit their local communities.

Concerning Digital Skills, the theoretical framework highlights the crucial role of digital competence for tourism professionals in adapting to technological and commercial shifts. There is a need for a diverse range of digital skills, from data literacy to blockchain expertise, to drive a sustainable, inclusive, and fair digital transition. Digital transition leads to the necessity of Human Resources to be endowed with digital capabilities and skills to keep up with this ever-changing market. Lifelong learning is crucial for this rapid digital revolution because it imparts not only technical skills but also social, cultural, and environmental knowledge that promotes welfare and a sustainable future.

The current European report considered data collected in the following partner countries: Bulgaria Cyprus, Greece, Italy, Portugal, Slovenia, and Spain.

Regarding our European diagnosis, with information collected from the following partner countries: Bulgaria Cyprus, Greece, Italy, Portugal, Slovenia, and Spain, we can conclude that, on average, the proficiency level of digital skills is lowest for students, teachers, and professionals. The current level of proficiency for digital skills varies between foundation and advanced. The skills with lower proficiency levels are related to AI applications and Web development. In the future, our participants valued all digital skills at an advanced level. The future skills more valued are related to the use of technology to create guest experiences. On the other hand, the skills less valued in the future are related to the use of AI applications and Web development. Moreover, the digital skills related with using and implementing tools for boosting collaboration work is presented as important for the sector.

Regarding the Green Skills, there is growing concern in the tourism industry about sustainability, with green certifications encouraging more sustainable practices. While certifications are seen as helpful for planning, they require cross-sector collaboration, such as for example engineering and water

management. Educating both professionals and clients about sustainable practices emerged as a key priority. Caring for the environment sustainability is not only fashionable, but also very essential for the survival of the world, the economy and the future generations. Given the shift toward increased environmental sustainability, there is a growing need for people with "green" talents.

Our European diagnosis suggested that the current proficiency level of green skills varies between an intermediate and advanced level. The skills with higher levels are related to monitoring practices. In the same way, for the future of these proficiency levels, our participants valued with higher means issues related to environmental laws and regulations, and with lower rates the use of technology for green transition.

Concerning Social Skills, Interpersonal and intercultural communication is critical in tourism, with foreign language learning and cultural awareness identified as areas for improvement. Social-cultural skills are fundamental to maintaining one of the characteristics that tourists praise so much – hospitality - and maintaining fruitful relationships both personally and professionally. Social competencies are crucial for adjusting to various circumstances and settings throughout life, and to achieve excellent services in the tourism sector skills like responsibility, team spirit, empathy, resilience, and adaptability are mandatory. Moreover, the concerns with the community and the locals, using local suppliers, and integrating the local culture and history in their activities and services are presented as a priority.

The proficiency level of social and cultural skills has higher mean levels nowadays and in the future. This data reinforces the crucial role of these skills. Nowadays, we can conclude that each one of the groups values more different types of skills. In the future, the skills less valued were related to basic communication skills such as conflict management, and the skills more valued were related to the effective ability to communicate with guests and colleagues.

Social and cultural competencies are critical for the tourist and hospitality industries in many nations, as they support inclusive experiences and competitive advantage. It is impossible to overestimate the significance of these abilities in guaranteeing visitor happiness, protecting cultural assets, and promoting sustainable tourism practices, even though education systems in certain nations still need to do a better job of incorporating them into their curricula. Through prioritizing the enhancement of communication abilities, cultural awareness, and flexibility, the tourist industry may sustain its growth in a worldwide marketplace that is becoming more complex and varied.

6. References

- Aghion, P., Bergeaud, A., Blundell, R. W., & Griffith, R. (2024). Social Skills and the Individual Wage Growth of Less Educated Workers. Social Science Research Network. <https://doi.org/10.2139/ssrn.4774931>
- Achmad, F., Prambudia, Y., & Rumanti, A. A. (2023). Improving tourism industry performance through support system facilities and stakeholders: The role of environmental dynamism. *Sustainability*, 15(4), 4103. <https://doi.org/10.3390/su15054103>
- Adeyinka-Ojo, S., Lee, S., Abdullah, S. K., & Teo, J. (2020). Hospitality and tourism education in an emerging digital economy. *Worldwide Hospitality & Tourism Themes*, 12(2), 113–125. <https://doi.org/10.1108/WHATT-12-2019-0075>
- Alt, R. (2021). Digital transformation in the restaurant industry: Current developments and implications. *Journal of Smart Tourism*, 1(1), 69-74. <https://doi.org/10.52255/smarttourism.2021.1.1.9>
- Altun, O., Saydam, M. B., Karatepe, T., & Dima, Ş. M. (2024). Unveiling ChatGPT in tourism education: exploring perceptions, advantages and recommendations from educators. *Worldwide Hospitality and Tourism Themes*, 16(1), 105-118. <https://doi.org/10.1108/WHATT-01-2024-0018>
- Amoiradis, C., Velissariou, E., & Stankova, M. (2021). Tourism as a socio-cultural phenomenon: A critical analysis. *Journal of Social and Political Sciences*, 4(2), 10-21. <https://doi.org/10.31014/aior.1991.04.02.271>
- Andriotis, K., & Vaughan, R. D. (2003). Urban Residents' Attitudes toward Tourism Development: The Case of Crete. *Journal of Travel Research*, 42(2), 172-185. <https://doi.org/10.1177/0047287503257488>
- Antontio, C., & Rita, P. (2021). COVID 19: The catalyst for digital transformation in the hospitality industry? *Tourism and Management Studies*, 17(2), 41-46. <https://doi.org/10.18089/tms.2021.170204>
- Auktor, G. (2020). Green Industrial Skills for a Sustainable Future. Retrieved from https://www.unido.org/sites/default/files/files/2021-02/LKDForum-2020_Green-Skills-for-a-Sustainable-Future.pdf
- Baum, T. (2008). The social construction of skills: A hospitality sector perspective. *European Journal of Vocational Training*, 44(2), 74-88. Retrieved from <https://www.cedefop.europa.eu/en/publications-and-resources/publications/ejvt-44-20082>
- Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism Management*, 29(4), 609-623. <https://doi.org/10.1016/j.tourman.2008.01.005>
- Carlisle, S., Ivanov, S., & Dijkmans, C. (2023). The digital skills divide: evidence from the European tourism industry. *Journal of Tourism Futures*, 9(2), 240-266. <https://doi.org/10.1108/JTF-07-2020-0114>
- Chaudhuri, R., Chatterjee, S., Vrontis, D., Galati, A. and Siachou, E. (2023). Examining the issue of employee intentions to learn and adopt digital technology. *Worldwide Hospitality and Tourism Themes*, 15(3), 279-294. <https://doi.org/10.1108/WHATT-02-2023-0020>
- Christou, E., Farmaki, A., & Evangelou, G. (2019). Tourists' perceptions of emotional experiences in the hospitality industry: The role of cultural contact. *Tourism Management Perspectives*, 31, 85-94.
- Dujmovic, M., & Vitasovic, A. (2022). Importance of social interaction and intercultural communication in tourism. *Sustainable Tourism*, 256, 77-83. <https://doi.org/10.2495/ST220071>

Eizenberg, E., & Jabareen, Y. (2017). Social Sustainability: a New Conceptual Framework. *Sustainability*, 9(1), 68. <https://doi.org/10.3390/su9010068>

Eurostat (2020). Employment in tourism industries in the EU. Available at: <https://ec.europa.eu/eurostat>

European Centre for the Development of Vocational Training (Cedefop) (2021). Green skills and environmental awareness in vocational education and training. Publications Office of the European Union. https://www.cedefop.europa.eu/files/5524_en.pdf

Garcia, R. M. R., & Ruiz, J. A. C. (2020). Professional training in tourism for the fourth industrial revolution. In Cardoso Espinosa, E. O. (Ed.) Management Training Programs in Higher Education for the Fourth Industrial Revolution: Emerging Research and Opportunities (pp. 62-78). IGI Global. DOI: [10.4018/978-1-7998-1875-5.ch004](https://doi.org/10.4018/978-1-7998-1875-5.ch004)

Gilli, K., Lettner, N., & Guettel, W. (2023). The future of leadership: new digital skills or old analog virtues? *Journal of Business Strategy*, 45(1). <https://doi.org/10.1108/jbs-06-2022-0093>

Gobierno de España (2022). Plan de modernización y competitividad del sector turístico. https://turismo.gob.es/es-es/estrategia/02_doc_completo_pmcst_enero_2022_online.pdf

Herath, R. B., Tham, J., Khatibi, A., & Azam, S. M. F. (2023). Implementation of green and sustainable practices by hotel managers in the Western province of Sri Lanka. *Journal of Law and Sustainable Development*, 11(11), 1-34. <https://doi.org/10.55908/sdgs.v11i11.1753>

Hernández-Garrido, R., Orts-Cardador, J., & Pérez-Calañas, C. (2023). The role of management in sustainable tourism: A bibliometric analysis approach. *Sustainability*, 15(12), 9712. <https://doi.org/10.3390/su15129712>

Herrity, J. (2019, March 15). Social skills: Definition and examples. Indeed.com. <https://www.indeed.com/career-advice/career-development/social-skills>

Im, U. L. (2011). Literature Review on Turnover - To Better Understand the Situation in Macau. UNLV Theses, Dissertations, Professional Papers, and Capstones, 1149. <http://dx.doi.org/10.34917/2523523>

INSETE (2023). Sustainability in the Greek tourism market: Paving the way for sustainable tourism growth. Deloitte Central Mediterranean. Retrieved from https://insete.gr/wp-content/uploads/2023/07/INSETE_Sustainability_Report.pdf

Jang, Y. J., Kim, W. G., & Bonn, M. A. (2011). Generation Y Consumers' Selection Attributes and Behavioral Intentions Concerning Green Restaurants. *International Journal of Hospitality Management*, 30, 803–811. <https://doi.org/10.1016/j.ijhm.2010.12.012>

Kamis, A., Alwi, A., & Yunus, F. A. (2017). Integration of green skills in sustainable development in technical and vocational education. *International Journal of Engineering Research and Applications*, 7, 2248-962208. <https://doi.org/10.9790/9622-0712030812>

Kasim, A., & Ismail, A. (2012). Environmentally friendly practices among restaurants: Drivers and barriers to change. *Journal of Sustainable Tourism*, 20(4), 551–570. <https://doi.org/10.1080/09669582.2011.621540>

Katemliadis, I., & Markatos, G. (2021). Stakeholders' involvement in sustainability planning and implementation: the case of Cyprus. *Worldwide Hospitality and Tourism Themes*, 13(6), 709-718. <https://doi.org/10.1108/WHATT-07-2021-0095>

- Kusa, R., Suder, M., & Duda, J. (2023). Impact of greening on performance in the hospitality industry: moderating effect of flexibility and inter-organizational cooperation. *Technological Forecasting and Social Change*, 190, 122423. <https://doi.org/10.1016/j.techfore.2023.122423>
- Lamri, J., & Lubart, T. (2023). Reconciling Hard Skills and Soft Skills in a Common Framework: The Generic Skills Component Approach. *Journal of Intelligence*, 11(1), 25. <https://doi.org/10.3390/jintelligence11010025>
- Levy, S., & Park, S.-Y. (2011). An Analysis of CSR Activities in the Lodging Industry. *Journal of Hospitality and Tourism Management*, 18(1), 147-156. <https://doi.org/10.1375/jhtm.18.1.147>
- Letonja, M., Blagojević, L., & Delić, A. (2022). Digitalisation of family tourism businesses in times of COVID-19 crisis: Digital skills and e-leadership as key drivers of resilience and competitiveness. *Sustainability*, 14(24), 16894. <https://doi.org/10.3390/su142416894>
- Lopez, D., & Alegre, A. (2021). The impact of the COVID-19 pandemic on sustainable tourism: A literature review. *Sustainability*, 13(20), 11378. <https://doi.org/10.3390/su132011378>
- Lu, J., & Wei, S. (2019). Green restaurant practices and customer purchase intentions. *International Journal of Contemporary Hospitality Management*, 31(2), 799–815. <https://doi.org/10.1108/IJCHM-07-2017-0425>
- Miremedi, S., & Pino, G. (2022). Sustainable restaurant practices: A review of the literature and future research directions. *Sustainability*, 14(19), 12252. <https://doi.org/10.3390/su141912252>
- Nascimento, R. C. R., Lomba, C. T. G., de Oliveira, D. L., & da Silva, S. L. F. (2021). Sustainability and competitiveness: Practical examples from tourism companies in Brazil. *Journal of Hospitality and Tourism Management*, 48, 393-404. <https://doi.org/10.1016/j.jhtm.2021.07.013>
- Nath, D. A., & Saha, S. (2022). Role of environmental sustainability in global hospitality and tourism industry. In C. A. Brebbia (Ed.), *Sustainable Development and Planning XII* (pp. 243-251). WIT Transactions on Ecology and the Environment. <https://doi.org/10.2495/SDP220211>
- Neumeyer, X., & McKenna, D. (2022). Environmental, social and governance performance in tourism. *Annals of Tourism Research*, 97, 103481. <https://doi.org/10.1016/j.annals.2022.103481>
- Numbeo (2020). Environmental and Safety Index for Tourism Industries. Retrieved from <https://www.numbeo.com/safety>
- Oktadiana, H., & Djauhar, R. H. (2011). The importance of understanding cultural awareness for managers in the hospitality industry (in Indonesia). *Binus Business Review*, 2(1), 230-243. <https://doi.org/10.21512/bbr.v2i1.1131>
- Ozturk, B. A., & Hancer, M. (2023). Culinary tourism trends: Examining the influence of digital platforms on food and drink experiences. *Journal of Tourism Research and Hospitality*, 9(2), 57-71. <https://doi.org/10.4172/2324-8807.1000182>
- Padin, C. (2012). A sustainable tourism planning model: components and relationships. *European Business Review*, 24(6), 510-518.
- Park, J., & Kim, H. (2017). Identifying key success factors for sustainability in the restaurant industry. *Journal of Foodservice Business Research*, 20(2), 129-145.
- Petrova, N., Chernova, N., & Nikitina, M. (2021). Green skills in sustainable tourism development: The case of Russia. *Journal of Sustainable Tourism*, 29(7), 1005-1024.
- RECOMENDACIÓN DEL PARLAMENTO EUROPEO Y DEL CONSEJO. (2006). <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:ES:PDF>

Rivas, R. M., Cardoso, E. O., & Cortés, J. A. (2019). Proposal of professional competencies in tourism from the employer's approach. *RIDE Revista Iberoamericana Para La Investigación Y El Desarrollo Educativo*, 9(18), 195–214. <https://doi.org/10.23913/ride.v9i18.418>

Sariego, I., & Mazarrasa, K. (2020). Key competences for cultural awareness and social skills in the tourist industry. *Journal of Tourism and Heritage Research*, 3(1), 469-488.

Saseanu, A. S., Ghita, S. I., Albastroiu, I., & Stoian, C.-A. (2020). Aspects of digitalization and related impact on green tourism in European countries. *Information*, 11(11), 507. <https://doi.org/10.3390/info11110507>

Santoalha, A., Consoli, D., & Castellacci, F. (2021). Digital skills, relatedness and green diversification: A study of European regions. *Research Policy*, 50(9), 104340. <https://doi.org/10.1016/j.respol.2021.104340>

Secretaría de Estado de Turismo (2024). Plan de formación en competencias digitales en el sector turístico. https://www.mintur.gob.es/es-es/recuperacion-transformacion-resiliencia/Documents/Competencias_Digitales_DEF.pdf

SEGITTUR. (2022). Informe de digitalización de las pequeñas empresas y microempresas turísticas españolas. https://www.pymeturisticadigital.es/media/pdfs/Informe_completo.pdf

SEGITTUR. (2023). Informe «Empleos de futuro para ciudades y destinos turísticos inteligentes». Segittur.es. https://www.segittur.es/sala-de-prensa/informes/empleos_futuro_ciudades_destinos_turisticos_inteligentes/

Sharpley, R. (2002). Rural tourism and the challenge of tourism diversification: The case of Cyprus. *Tourism Management*, 23(3), 233-244.

Stylianou-Lambert, T., Boukas, N., & Christodoulou-Yerali, M. (2021). Heritage tourism on an island: The role of museums. *Journal of Heritage Tourism*, 16(2), 192-210.

Sustainable development goals & knowledge platform. (2024). Report of the World Commission on Environment and Development - Our Common Future. <https://sustainabledevelopment.un.org/milestones/wced>

Tankovic, A. C., Kapeš, J., & Benazić, D. (2022). Measuring the importance of communication skills in tourism. *Economic Research-Ekonomska Istraživanja*, 36(1), 1–20. <https://doi.org/10.1080/1331677x.2022.2077790>

Trafialek, J., Czarniecka-Skubina, E., Kulaitienė, J., & Vaitkevičienė, N. (2019). Restaurant's multidimensional evaluation concerning food quality, service, and sustainable practices: A cross-national case study of Poland and Lithuania. *Sustainability*, 12(1), 234. <https://doi.org/10.3390/su12010234>

Tziora, N., Giovanis, N., & Papacharalabous, C. (2016). The role of foreign languages in hospitality management. *International Journal of Language Translation and Intercultural Communication*, 4(1), 89-97. <https://doi.org/10.12681/ijltic.10353>

United Nations Development Programme. (2024). What are the Sustainable Development Goals? <https://www.undp.org/sustainable-development-goals>

UNWTO. (2023). Tourism and Sustainability: Global Trends and Policy Responses. <https://www.unwto.org/tourism-and-sustainability-report>

Van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2010). Measuring internet skills. *International Journal of Human-Computer Interaction*, 26(10), 891–916. <https://doi.org/10.1080/10447318.2010.496338>

- Vona, F., Marin, G., Consoli, D., & Popp, D. (2018). Environmental regulation and green skills: An empirical exploration. *Journal of the Association of Environmental and Resource Economists*, 5(4), 713–753. <https://doi.org/10.1086/698859>
- Vona, F., Marin, G., Consoli, D., & Popp, D. (2015). Green skills. National Bureau of Economic Research. <http://www.nber.org/papers/w21116>
- World Economic Forum. (2019). The Travel & Tourism Competitiveness Report: Travel and Tourism at a Tipping Point. https://www3.weforum.org/docs/WEF_TTCR_2019.pdf
- Zopiatis, A., Constanti, P., & Theocharous, A. L. (2014). Migrant labor in hospitality: The Cyprus experience. *International Journal of Hospitality Management*, 37, 111–120.
- Zorpas, A. A., Voukkali, I., & Loizia, P. (2018). Sustainable waste management in the hospitality sector: New trends and innovations. *Waste Management*, 74, 104-111.

Annex A - Country Report of Bulgaria



**GreenHost - Vocational Excellence, Police and Enterprise
United for Hospitality Management Skills adapted on
Environmental Footprint Methods**

**WP2/A1: Current situation and needs analysis of target
groups**

Country: BULGARIA



**Co-funded by
the European Union**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project n° 10144003-GreenHost-ERASMUS-EDU-2023-PEX-COVE

Contents

1. Theoretical Background	2
1.1. Digital Skills.....	3
1.2. Green Skills	4
1.3. Social and Cultural Skills	5
2. Survey Analysis	5
2.1. Sociodemographic characterization	5
2.2. Current situation analysis.....	6
2.2.1. Digital Skills.....	6
2.2.2. Green Skills.....	6
2.2.3. Social and Cultural Skills.....	7
2.3. Future needs analysis	8
2.3.1. Digital Skills.....	8
2.3.2. Green Skills.....	8
2.3.3. Social and Cultural Skills.....	9
3. Focus Group Analysis.....	10
3.1. Sociodemographic characterization	10
3.2. Digital skills	11
3.3. Green skills	11
3.4. Social and cultural skills	12
4. Conclusion	13
5. References.....	13
ANNEX A	

1. Theoretical Background

This chapter presents the general framework of tourism education and training in the Republic of Bulgaria according to the national legislation (Pre-school and School Education Act (PSEA), Vocational Education and Training Act (VET Act), Higher Education Act (HEA), etc. and sub-legislation), as well as a brief overview of sources related to digital, green and social and cultural skills applied to tourism education and training in the country.

The system of education and training in tourism in Bulgaria covers secondary vocational and higher education, as well as continuing vocational training (updating, extending or upgrading the acquired qualification in a profession or in a part of a profession).

According to the current List of Professions for Vocational Education and Training (LPVET), professions in the field of tourism are divided into two professional fields "Travel, Tourism and Leisure" (Professions: Travel agency organiser; Mountain guide; Tour guide; Tourist animator) and "Hotel, restaurant and catering services" (Professions: Cook; Waiter-bartender; Hotelier; Hotel administrator; Valet; Porter-piccolo; Restaurateur; Catering and entertainment worker).¹

Vocational education and training in the field of tourism takes place in vocational schools, vocational colleges and vocational training centres.

Vocational schools provide vocational education and training with the acquisition of first, second and third degree of professional qualification. They may also provide vocational training leading to a fourth level of vocational qualification on the basis of an order of the Minister of Education and Science under certain conditions. Vocational schools may also provide vocational training with the acquisition of qualifications in part of the profession.

Vocational Training Centres (VTCs) provide vocational training for people aged 16 and over.

Vocational education is provided through general education and vocational training, with vocational training ensuring the achievement of the State Educational Standards (SES) for the acquisition of a qualification in a profession.

Higher education provides the opportunity to study in the field of tourism at the qualification levels of "Professional Bachelor", "Bachelor", "Master" and "Doctor".

The range of majors varies from quite broad, such as "Tourism", "International Tourism", "Tourism Management", etc. to quite narrow, such as "Ecotourism".

Despite the availability of sufficient education and training organisations, an Agreement on the provision of staff for the tourism sector between the Ministry of Labour and Social Policy (MLSP) and the Ministry of Tourism (MoT) signed in 2018, active work between the institutions and organisations concerned, including within the framework of the Inter-Ministerial Council for Tourism Personnel (an advisory body to the Minister of Tourism) established in 2016, and a number of programmes and projects contributing to the provision of staff for the tourism sector financed by the state budget and the European Union Funds, the main problem at the moment is the lack of staff willing to work in the industry (Ministry of Tourism, 2024). According to the Ministry of Education, only 20% of tourism graduates work in the sector.²

¹ The enumeration is non-exhaustive.

² <https://manager.bg/%D0%B1%D1%8A%D0%BB%D0%B3%D0%B0%D1%80%D0%B8%D1%8F/edva-20-ot-zavarshilite-v-sferata-na-turizma-rabotat-v-sektora>

By 2024, links between the education sector and the tourism industry are not satisfactory. Although it prioritises the issue of human resources in its work, the Ministry of Tourism does not have such functional competencies and does not currently collect regular information on the demand for employees with specific knowledge and skills in the sector.

Article 77 of the Pre-School and School Education Act (PSEA) states that general education covers several groups of key competences, including digital competence, social and civic competence, cultural competence and skills for expression through creativity, skills to support sustainable development, etc.

According to information from the Ministry of Education and Science (MES), from April 2024, changes to the VET Act will include programmes on environmental protection and specific digital skills in the training for each profession.³

The National Strategy for Sustainable Development of Tourism in the Republic of Bulgaria 2014-2030 reports the following weaknesses: "Lack of accurate assessment of the needs of tourism employers for a workforce with certain characteristics and skills ; Lack of quality personnel on the labour market; Lack of personnel with training for the new professions in tourism (related to new technologies, innovations and trends in the industry); Lack of well-trained personnel in specific areas (e.g. tour guides, rehabilitators, physiotherapists, etc.).

1.1. Digital Skills

The development of **digital skills** is set as a priority in several national strategies such as the National Development Programme Bulgaria 2030, the National Programme Digital Bulgaria 2025, the National Strategy Document "Digital Transformation of Bulgaria for the period 2020-2030", Employment Strategy of the Republic of Bulgaria 2021-2030 etc. In the period 2023-2024, the Ministry of Education and Science plans to develop a National Skills Strategy and a Skills Policy Action Plan.

Projects under the National Recovery and Sustainability Plan, the Human Resources Development Programme 2021-2027 and the National Employment Action Plan 2024 are aimed at improving the **digital skills** of employees.

According to the European Commission⁴ " Bulgaria ranks 26th out of 27 EU Member States in the European Commission's Digital Economy and Society Index (DESI) for 2022. Bulgaria's DESI score has increased by an average of 9% per year over the last five years. Given Bulgaria's positioning, this growth rate is not sufficient for the country to catch up with other member states. In terms of digital skills, despite recent increased efforts, the country remains well below the EU average of 45.7 with a score of 32.6 . Given the EU's ambitious targets for 80% of adults to have at least basic digital skills by 2030, the country needs to do more to reach the more than two-thirds of its population without such skills."

Information from the EU Tourism Dashboard shows that on the indicator "Training of staff in digital skills", with an EU average of 13% for 2019 and 9.9% for 2022, the indicator for Bulgaria is significantly lower, respectively: 4.6% for 2019 and 3% for 2022.

The National Strategy for Sustainable Development of Tourism in the Republic of Bulgaria (NSSDTB) 2014-2030 recognizes the importance of technological factors that "have a significant impact on the development of the tourism industry and especially on the distribution system of tourism services and products.

According to the PANTOUR-COUNTRY-SKILLS-PROFILE-REPORT_BULGARIA, 2024 report, "Most of the universities offering tourism and hospitality programmes have special modules dedicated to

³ <https://energyforthefuture.electrohold.bg/bg/novini/digitalnite-i-zeleni-umeniya-vlizat-vv-vsyaka-profesiya/>

⁴ "Digital Economy and Society Index (DESI), 2022."

information and communication technologies (ICT), where the content is focused on basic computer literacy and working with the main common software and operating systems (Windows, MS Office). Only a few of the university programmes in tourism and hospitality have specialised modules related to digital skills in tourism, e.g. Varna University of Management has a module on "Technology in Tourism and Hospitality", including specialised training in PMS/hotel management software and F&B software; College of Tourism at UE-Varna has a module on "Digital Technologies in Hospitality"; International Business School has a module on digital business transformation; while New Bulgarian University offers Internet Communications in Tourism.

In tourism vocational secondary schools in the country, digital skills are included in basic computer literacy modules (business communication skills, online correspondence, etc.) and in hotel specific software (PMS, Revenue management software)⁵.

The analysis of the curricula shows the need for continuous updating, training of trainers, especially for the needs of secondary schools, and updating the knowledge of those working in the sector through continuing education.

1.2. Green Skills

A review of higher education programmes shows that in terms of green skills, most schools with a Tourism or Hospitality major include elements of sustainability, energy and resource efficiency and environmental management.

Sofia University "St. Kliment Ohridski" offers a Master's degree programme in Ecotourism. Training in the major "Biology with Ecotourism" is carried out at Plovdiv University "Paisii Hilendarski", Branch - Smolyan at the degree "Bachelor". The South-Western University "Neofit Rilski" offers training at the degree "Master", major "Management of Sustainable Tourism". The College of Tourism in Blagoevgrad has included training in the discipline "[Sustainable Tourism Development](#)".⁶

Training in secondary vocational schools of tourism includes basic knowledge, which is not sufficient at the current stage of development of the tourism industry. For example, a review of Regulation No 1/24.01.2019 on the acquisition of qualifications in the profession of "Hotel Administrator" shows that it includes as a learning outcome the acquisition of knowledge to participate in the establishment of an organisation for the implementation of preventive environmental protection activities

The curricula of the vocational schools and VTC centres include certain skills related to safety and security rules, hygiene standards, the HACCP (Hazard Analysis Critical Control Point) system, environmental management, etc.

In recent years, the need for up-to-date knowledge and skills in sustainable development in the country's tourism industry has become increasingly evident. The development of the tourism industry globally shows the need for rapid adaptation of the Bulgarian tourism product to the novelties of the world market. This makes it even more necessary to constantly update the knowledge and skills of professionals in the industry.

Some projects and initiatives that work in this direction are CloudEARTH (https://cloudearthi.com) CloudEARTH; GreenSkills4VET (Green Skills for Vocational Education and Training, https://www.greenskills4vet.eu); Green VET net (Green Vocational Education and Training,

⁵ PANTOUR-COUNTRY-SKILLS-PROFILE-REPORT_BULGARIA report, 2024.

⁶ The enumeration is non-exhaustive.

<https://sakky.fi/fi/greenvetnet>); Green Skills for Future Tourism (<https://ecosystemeurope.org>); Scenario-Based Training for Green Transversal Skills in Tourism (TRANS4GREEN), etc.

1.3. Social and Cultural Skills

The curricula of tourism universities in the country include a number of disciplines that contribute to the acquisition of adequate knowledge and social and cultural skills by students. The subjects include Psychology, Philosophy, Art History, Cultural Tourism and Cultural Geography, Customer Care, Business Communication, etc.

In contrast to higher education institutions, the topics of social and cultural skills are more broadly covered in secondary vocational schools of tourism and VTC and cover basic knowledge and skills. The SES for the profession of Hospitality Administrator, for example, includes the acquisition of teamwork skills, conducting effective business communication, observing ethical standards of behaviour and participating in the development of an ethical working environment, etc. In reviewing the curricula and programmes, the slight dominance of digital skills development at the expense of social skills is noticeable.

In VTC and vocational schools, social skills modules are poorly represented at this level of education. There are topics related to the preparation, organisation, conduct and management of special tourism events, identification of certain industry trends, marketing skills for promotion and publicity of special events, customer service and customer care.

All this calls for a greater emphasis on the subject in curricula and programmes, as well as in continuing education.

2. Survey Analysis

Context

Population	Students, professionals, and teacher.
Data Collection Period	[Month] 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	[online survey, physical survey]
Total Samples Collected	[39 students] [78 professionals] [57 teachers]

2.1. Sociodemographic characterization

The sample spanned across various ages, years of experience, sectors and academic status. 30% of the sample were in the 45-54 age bracket followed closely by the 18-24-year-olds with 29% (Fig. 1, Annex A). The sample consisted of 75% females, 23% males and 2% non-binary people. 45% of the participants are working professionals, 33% were teachers and 22% - students. Tourism (52%) and Hotels and restaurants (33%) were the largest sectors represented in the survey (Fig. 2, Annex A). The majority of the participants are Master's degree holders (Fig. 3, Annex A) and more than half have been working in the industry for up to 10 years (Fig. 4, Annex A).

2.2. Current situation analysis

2.2.1. Digital Skills

The current situation analysis shows all groups possess advanced or highly specialized skills in secure information processing with professionals at the top (59% of students, 68% of professionals, 63% of teachers). Similar is the skill level in the use of office applications across stakeholder groups. Teachers show the highest level with 77% being highly specialized and 65% and 59% of professionals and students, respectively, are at the same level.

In a few areas students show a slightly lower skill level than the groups of professionals and teachers. While 61% of teachers and 58% of professionals possess advanced or higher-level skills in the use of digital marketing systems and communications platforms, only 49% from the students show the same skill level. The same disparity goes for digital privacy and ethics: 65-67% of professionals and teachers are at an advanced or higher skill level, while the same percentage of students possess only foundational or intermediate skill level on the matter.

Lower rankings for students continue in digital business analysis, business intelligence, data-driven decision making: 41% are advanced or highly specialized with 61% at the same level from the groups of teachers and working professionals.

An interesting picture draws the current situation analysis for the skill level in the use of robots. Unsurprisingly, students are the most prepared with 54% having advanced or highly specialized skill level. Next come the professionals, 63% of which demonstrate up to intermediate level skills and at the bottom, most of the teachers (53%) hold just foundational level skills. Similarly, in the use of generative AI applications a staggering 85% of students have at least intermediate level skills and 26% consider themselves highly specialized. The groups of professionals and teachers are both running behind with 61-63% having no more than intermediate skill level. Not much different is the situation with web & app development & programming – of students take the lead as 77% are at least at an intermediate skill level. At the same time 53% of teachers and almost half of the professionals have just foundational level skills.

Surprisingly, students are also first when it comes to the use of digital technologies to create guest experiences – an area that one would normally gain experience in by working in the field. 51% of students have at least advanced level skills while the majority of the other groups – 56% of professionals and 65% of teachers are at foundational or intermediate level skills.

2.2.2. Green Skills

Green skills are a strong feat for the tourism sector in Bulgaria. The majority of the stakeholder groups (students, professionals, teachers) have already achieved intermediate, advanced or higher level of green skills in various topics. The highest skill level demonstrated is in the efficient use of resources (e.g. energy, water, materials) where 64% of students, 72 % of professionals and 68% of teachers possess advanced or higher-level skills (Fig. 5, Annex A).

Similar is the situation on the promotion and encouragement of sustainable practices among guests – the majority of all three groups are at least at an advanced skill level – 54% of students, 68% of professionals, 63% of teachers.

All stakeholder groups also have an advanced level of understanding the environmental laws and regulations – 68% of both professionals and teachers and 56% of students.

In some areas experience speaks for itself: for example, more professionals (63%) and teachers (60%) are at an advanced skill level in communication about the organisation's efforts towards a green economy than students (51%).

The biggest differentiating topic turns out to be measurement and management of waste. While 58% of professionals and 53% of teachers are advanced, only 36% of students present this skill level on the matter.

Generally, slightly lower is the skill level among stakeholder groups on a few other topics. However, an interesting trend can be observed – the group of the students have the highest percentage of people holding at least intermediate level skills. In measurement and management of CO2 emissions students are the best with 77% at an intermediate or higher skill level, while the same goes for 61% of professionals and only 56% of teachers. This trend holds true also for Adoption of environmental certifications and management systems (85% of students, 63% of professionals and 54% of teachers have intermediate or higher skill level).

When it comes to green procurement and greening the supply chains 77% of students, 63% of professionals and 60% of teachers are at intermediate or higher skill level. Very similar are the numbers also on the topic of use of technology to speed up the green transition – 74% of students, 65% of professionals and 60% of teachers have at least intermediate skill level. Last but not least, students are again the most skilled group in green marketing and product development with 82% with intermediate or higher skill level. However, interestingly enough, slightly fewer professionals (59%) than teachers (63%) are at the same level.

2.2.3. Social and Cultural Skills

The survey indicates that students, professionals, and teachers possess extensive specialization in various social and cultural skills. Naturally, professionals and teachers, with their greater experience, show a higher level of specialization compared to students. For instance, only 36% of students are highly specialized in providing excellent customer service, resolving conflicts, and working effectively in a team. In comparison, the percentages for professionals and teachers are as follows: 56% of professionals and 54% of teachers excel in providing excellent customer service; 49% of professionals and 58% of teachers are adept at resolving conflicts; and 67% of both professionals and teachers are proficient in working effectively in a team (Fig. 6, Annex A).

The closest students come to matching professionals and teachers is in communicating effectively with guests and colleagues, and understanding the cultural setting of their own destination to share this information with guests-41% of students are highly specialized in these area.

In contrast, 67% of professionals and 68% of teachers excel in communicating effectively, and 52% of professionals and 54% of teachers are adept at understanding and sharing cultural information (Fig. 7, Annex A).

A significant disparity in skill levels is evident in the adaptability to change and handling unexpected situations, where 61% of teachers, 56% of professionals, and only 31% of students are highly specialized.

In analytical skills, 56% of students, 81% of professionals, and 89% of teachers demonstrate advanced or higher proficiency. Regarding critical thinking, 59% of students, 78% of professionals, and again 89% of teachers exhibit advanced or higher capabilities. For learning-oriented skills, the numbers rise slightly, with 61% of students, 85% of professionals, and 95% of teachers showing advanced or higher proficiency. In contrast, foreign language skills show a different trend, with 51% of students, 65% of professionals, and 53% of teachers at an advanced or higher level. Overall, teachers consistently have the highest percentage of advanced skills across those topics of social and cultural skills, while students generally have the lowest, except in foreign languages, where their proficiency is comparable to teachers.

2.3. Future needs analysis

2.3.1. Digital Skills

The future skill levels in various digital skills among students, professionals, and teachers show varying degrees of proficiency. In secure information processing, the majority of all groups (54% of students, 68% of professionals, and 63% of teachers) are expected to be at an advanced or higher level with students projected to be at a slight disadvantage.

In using office applications, the disparity between students and the other stakeholder groups continues – 73% of professionals, and 70% of teachers would have advanced or higher skill level, while this is projected for just over half of the students (54%).

In digital marketing systems and communication platforms students are again at a lower skill level with 67% at an intermediate or advanced level, compared to 69% of professionals and 61% of teachers at an advanced or higher level.

In some areas the future skillset is projected to put professionals in the lead among stakeholder groups. Digital privacy and ethics proficiency skills is projected to become advanced or higher for 59% of students, 73% of professionals, and 63% of teachers. In digital business analysis, business intelligence, and data-driven decision making, 51% of students, 63% of professionals, and 56% of teachers are going to be at an advanced or higher level.

There are also areas where the teachers' skill disadvantage is only going to deepen. For the use of robots, 50-51% of students and professionals are expected to be at an advanced or higher skill level, while 51% of teachers are still going to be at just a foundational level. In using digital technologies to create guest experiences, 56% of students, 55% of professionals are projected to possess an advanced or higher skill level, with 51% of teachers at an intermediate or advanced level.

Unsurprisingly, when it comes to generative AI applications, students are going to be the most skilled group in the future: 74% of students are expected to be at an intermediate or advanced level, while 49% of professionals and 54% of teachers are going to be at a foundational or intermediate level.

For web and app development and programming, 64% of students are projected to hold intermediate or advanced level skills, with 46% at an advanced or higher level. In comparison, 50% of professionals are going to be at an advanced or higher level, while 61% of teachers – at a foundational or intermediate level.

2.3.2. Green Skills

The future skill levels in various green skills among students, professionals, and teachers demonstrate differing degrees of expertise.

Interestingly, when it comes to understanding of environmental laws and regulations teachers are at the lower end: It is projected to be at an advanced or higher level among 64% of students, 70% of professionals, and just 51% of teachers. However, teachers would become the most skilled group in

communication about an organization's green efforts: 59% of students, 69% of professionals, and 72% of teachers are going to be at an advanced or higher skill level.

Similar would be the case in the use of technology to expedite the green transition: 56% of students at an intermediate or advanced level, 52% of professionals, and 58% of teachers at an advanced or higher level.

On a number of topics students are expected to be the group with the lowest skill level with an exact parity achieved between the groups of teachers and professionals. In the measurement and management of waste, 61% of students, 65% of professionals, and 65% of teachers are going to be at an advanced or higher skill level.

Adoption of environmental certifications and management systems sees 54% of students at an intermediate or advanced level, with 58% of both professionals and teachers being advanced or higher.

Regarding green procurement and greening the supply chains, 61% of students are at an intermediate or advanced level, while 56% of both professionals and teachers are advanced or higher.

Green marketing and product development has 56% of students at an intermediate or advanced level, and 54% of both professionals and teachers at an advanced or higher level.

Naturally, there are also topics in which the group of professionals is projected to hold the first place in terms skill level. For CO2 emissions management, 59% of students are at an intermediate or advanced level, while 56% of professionals and 54% of teachers are at an advanced or higher level.

In the efficient use of resources, 73% of professionals, 59% of students, and 67% of teachers are going to be at an advanced or higher skill level.

For promoting and encouraging sustainable practices among guests, 74% of professionals, 61% of students, and 67% of teachers are similarly advanced.

2.3.3. Social and Cultural Skills

The future skill levels in various social and cultural skills among students, professionals, and teachers reveal varying degrees of proficiency.

For providing excellent customer service, professionals would become the most skilled group: 69% of students are going to be at an advanced or higher level, while 67% of professionals and 65% of teachers - at a highly specialized level.

Working in the field cannot be swapped for anything else and this is shown by the level of specialization professionals are expected to possess. In foreign languages, 77% of professionals, 54% of students, and 60% of teachers are going to be at an advanced or higher level. Similarly, in communicating effectively with guests in their native language, 78% of professionals, 59% of students, and 67% of teachers are going to be at an advanced or higher skill level.

In a few areas the group of the teachers is projected to become the most specialized among the stakeholders. In communicating and interacting with people from different cultural and social backgrounds, teachers are projected to have the highest percentage of high specialization - 67% with only 46% of students, and 59% of professionals. Conflict resolution skills are advanced or higher for 69% of students, with 59% of professionals and 67% of teachers being highly specialized.

The same trend is observed with support for diversity, equality, and inclusivity: it is going to be at an advanced or higher level for 72% of students, but 60% of professionals and 65% of teachers would be highly specialized. Understanding the cultural setting of their destination and sharing this information with guests sees 61% of students at an advanced or higher level, with 61% of professionals and 65% of teachers at a highly specialized level.

Effective communication with guests and colleagues shows 74% of students at an advanced or higher level, while 68% of professionals and 72% of teachers are highly specialized. The projections are the same for the adaptability to change and handling unexpected situations with the only difference that the percentage for students drops to 69%.

On the topics of team work, analytical skills, critical thinking, students would be lacking the high skill level that the groups of teachers and professionals would achieve. Skills for working effectively in a team are projected to be the highest level in teachers with 75% being highly specialized, while the same goes for 69% of professionals. Students would be at the last place with advanced or higher skill level for 67%.

Analytical skills would be advanced or higher for 72% of students, with 64% of professionals and 67% of teachers being highly specialized. Critical thinking would be at an advanced or higher level for only 49% of students, while 65% of professionals and 67% of teachers would become highly specialized.

Surprisingly, skills for a learning-oriented approach are not going to develop the most in the group of students. It is expected to be at an advanced or higher level for 68% of students, while 65% of professionals and 75% of teachers would become highly specialized.

3. Focus Group Analysis

Context

Participants	Sectoral, educational, entrepreneurial.
Data Collection Period	21 June, 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	In person and online focus group
Total Samples Collected	(3 of sectoral) (4 of educational) (3 of entrepreneurial)

3.1. Sociodemographic characterization

In Bulgaria, 11 persons were interviewed, face-to-face and online for digital, environmental and social/cultural skills, of which 3 were sectoral (working in management, IT, monitoring – environmental), 4 educational (working in secondary school/university) and 3 entrepreneurial (working in tourism/hospitality/restaurant sector).

ENTREPRENEURIAL GROUP

In the entrepreneurial group, 2 men and 1 woman aged between 35 and 55 were interviewed. One had a secondary school degree and the other two had a master's degree.

Accordingly, they work as a hotel manager, as a restaurant manager and as an association representative.

EDUCATIONAL GROUP

In the educational group, 2 men and 2 women aged 35 to 56 years were interviewed. Two of them had a master's degree and the other two had a doctoral degree. They work respectively at the VTC, at the Vocational School of Food Technology and Engineering, at the College of Tourism in Blagoevgrad and at the Department of Tourism at the Agricultural University in Plovdiv.

SECTORAL GROUP

Three women aged 40 to 51 were interviewed in a sectoral group. One had a bachelor's degree and the other two had master's degrees.

They work respectively, as manager of a company for tastings, training in traditional cooking and experiences, manager of an online store for ecological and healthy foods and as an employee of the Ministry of Tourism in the Republic of Bulgaria.

3.4. Digital skills

ENTREPRENEURIAL GROUP

Regarding digital skills – the interviewed entrepreneurs believe that no business can prosper without these skills, and that the most important skills in their sector of activity are the preparation of staff to work with modern universal office computer programs (MS Office, etc.) , specialized software applications for hotel and restaurant work (software for reservations, orders, etc.) and Internet applications for electronic communication with customers and partner companies. They also consider that digital skills certificates are only applicable for the basic universal applications that are used in every office.

EDUCATIONAL GROUP

Teachers believe that digital knowledge and skills are nowadays extremely important for the presentation and learning of the material by the students, as well as for improving the qualification of the teachers themselves. At the same time, most of the HEIs do not offer training in specialized software in the field of tourism due to lack of available funds for equipping classrooms and purchasing licenses.

Modern digital skills that they believe can be improved are communication on social networks and communication platforms.

SECTORAL GROUP

The sectoral group interviewed claimed that the most important skills in their sector of activity were an understanding of customer service standards and industry practices. Working with reservation systems, using hotel and restaurant management software and other technology solutions is also important. Possession of excellent communication skills and courtesy from staff, problem solving and collaboration skills, effective communication with colleagues, also the ability to adapt to different situations and changes in the work environment.

3.3. Green skills

ENTREPRENEURIAL GROUP

The entrepreneurs interviewed believe that green thinking and green skills are becoming increasingly important in their sector of activity. Environmental knowledge and skills are even more important in the hospitality industry as they not only reduce environmental impact but can also lead to cost savings and attract eco-conscious customers.

According to the entrepreneurs, knowledge of waste reduction principles, including food waste reduction and proper management of hazardous waste, is necessary, as well as knowledge of environmentally friendly materials and products, including biodegradable and recycled materials. It is important to train employees on environmental practices and their importance and to raise the environmental awareness of staff. Entrepreneurs express the view that there is a gradual increase in customer demands for tourist sites to be marked with an eco-sticker, which will require certification sooner or later.

EDUCATIONAL GROUP

The teachers/educators interviewed believe that environmental awareness is very important. The personal interest and commitment to environmental protection in each person, regardless of their responsibilities. The constant drive to improve and implement environmentally friendly practices. The ability to identify environmental problems and find sustainable solutions. The ability to analyze situations and make informed decisions that minimize environmental impact. Educators feel that green certifications are not yet applicable in their work.

SECTORAL GROUP

Sectoral group interviewees believe that several key steps need to be taken to improve environmental knowledge and skills: Include environmental topics in training programmes for newly recruited staff. Establish clear and specific environmental policies and procedures to be followed by all staff. Introduce systems for monitoring and reporting on environmental performance. Implement effective waste separation and recycling systems. Reduce the use of disposable plastics and replace with sustainable alternatives. Assisting government organisations and bodies in informing and educating the population about eco-culture.

All groups recognised that developing a national policy on public awareness, waste collection and recovery, and encouraging circular waste management models to be introduced in individual businesses were key to developing and sustaining skills in learners and staff in the tourism sector.

3.4. Social and cultural skills

ENTREPRENEURIAL GROUP

The entrepreneurs interviewed considered social and cultural skills to be of great importance for their sector of activity. They express that the most important social and cultural skills for their employees are the ability to recognize the needs of others and to meet them, teamwork, understanding cultural differences when working in international teams, having cultural dialogue, having developed communication skills, patience, kindness, professional attitude and in general all behaviours that promote effective communication and satisfying relationships between people. They say that they do not need certification for the above skills at this time, which in turn are difficult to assess and depend on each individual's upbringing, social status and ethno-cultural background.

Entrepreneurs believe that a large number of young people do not have built resilience to problems at work and easily leave the workplace and even the sector. Therefore, team communication

skills, cooperation, patience, as well as a welcoming attitude towards customers and foreign language skills are extremely important.

EDUCATIONAL GROUP

The teachers interviewed felt that social and cultural skills were medium to very important skills for their work. The most important social and cultural skills, according to them, are the skills of continuous learning, the ability to collaborate, to resolve conflicts, to work in a team, to listen and show tolerance, to have the ability to make new contacts, to be accepting of other cultures, to respect people and their opinions, to have empathy, and to have confidence in one's abilities. Teachers feel that certificates in social and cultural skills are not necessary at this time.

SECTORAL GROUP

The sectoral group interviewed felt that social and cultural skills were very important for their sector of activity. They state that the most important social and cultural skills for their employees are teamwork, conflict resolution, foreign language skills, communication skills, willingness and dedication in dealing with people, good communication, resourcefulness, friendliness, hospitality, patience and professional attitude. They feel that they do not need certificates for these skills, but rather targeted activities to develop and build on these skills.

4. Conclusion

The results of the survey conducted in Bulgaria hardly differ significantly from the results in other EU countries. Overall, the problems in the tourism sector are similar in all countries. The major challenges posed by the COVID crisis to the industry have not yet abated and may be felt for years to come. The sector's reorientation of human resources to other areas of activity makes it extremely difficult to secure quality staff with experience in tourism, and training and stimulating new staff is not quick and easy. The tourism industry, as an important sector for any economy, needs to implement new ways of thinking and action, both in terms of education, information technology, care for nature and to increase cultural interaction.

The survey highlights the importance of digital skills and literacy, social and cultural skills as well as the growing importance of green skills, and in general, the willingness of all respondent groups to build on these skills. Most of the respondents were willing to learn more in areas where their knowledge was poor and would like to improve all the skills mentioned in the future.

Our research shows that all the groups surveyed are aware of the problems in the tourism sector and believe that solving them should be done through national and European (EU) legislation policies, through education and building an overall value system in society.

5. References

Legal Framework

1. Pre-school and School Education Act (Promulgated State Gazette No. 79 of October 13, 2015, last amended March 29, 2024)- <https://lex.bg/laws/ldoc/2136641509>;
2. Vocational Education and Training Act (Promulgated State Gazette No. 68 of July 30, 1999, last amended May 10, 2024)- <https://lex.bg/laws/ldoc/2134673921>;
3. Higher Education Act (Promulgated State Gazette No. 112 of December 27, 1995, last amended May 1, 2024) - <https://lex.bg/laws/ldoc/2133647361>;
4. Tourism Act (Promulgated State Gazette No. 30 of March 26, 2013, last amended May 10, 2024)- <https://lex.bg/laws/ldoc/2135845281>;

[%D1%80%D0%B0%D0%B1%D0%BE%D1%82%D0%B5%D0%BD-%D1%81%D0%B5%D0%BC%D0%B8%D0%BD%D0%B0%D1%80/](#)

Internet pages and Registers

18. European Commission, 2024, Bulgaria in the Digital Economy and Society Index, <https://digital-strategy.ec.europa.eu/bg/policies/desi-bulgaria>;
19. European Commission, 2024, [EU Tourism Dashboard: Overview of indicators per policy pillar](#), <https://tourism-dashboard.ec.europa.eu/?lng=en&ctx=tourism>;
20. Ministry of Tourism (2024), Administration Goals, 2024 , https://www.tourism.government.bg/sites/tourism.government.bg/files/uploads/celi_mt_2024_dopulneni_.pdf;
21. Ministry of Tourism (2024) - National Tourist Register - <https://ntr.tourism.government.bg/>;
22. Ministry of Education and Science (2024) - <https://www.mon.bg/>;
23. Ministry of Labor and Social Policy (2024) - <https://www.mlsp.government.bg/>;
24. Employment Agency (2024) - <https://www.az.government.bg/>;
25. [National Evaluation and Accreditation Agency \(2024\)](#) - <https://www.neaa.government.bg/>;
26. [National Agency for Vocational Education and Training \(2024\)](#), - <https://www.navet.government.bg/bg/>;
27. [Sofia University "St. Kliment Ohridski" \(2024\)](#), Ecotourism Curriculum, https://www.uni-sofia.bg/index.php/bul/universitet_t/fakulteti/geologo_geografski_fakultet/specialnosti/magist_rski_programi/geologo_geografski_fakultet/3_9_turiz_m/specialnost_turiz_m/ekoturiz_m_and_;
28. [Sofia University "St. Kliment Ohridski" \(2024\)](#), Cultural Tourism Curriculum, https://www.uni-sofia.bg/index.php/bul/universitet_t/fakulteti/geologo_geografski_fakultet/specialnosti/magist_rski_programi/geologo_geografski_fakultet/3_9_turiz_m/specialnost_turiz_m/kulturen_turizm_;
29. Varna Institute of Management (2024), Bachelor's degrees: <https://vum.bg/bachelors-degrees-2/> and Master's programmes: <https://vum.bg/masters-degrees-2/>;
30. Plovdiv University "Paisii Hilendarski" (2024), Bachelor's degrees: Biology with ecotourism: <https://uni-plovdiv.bg/pages/index/550/>;
31. Southwestern University "Neofit Rilski" (2024), <https://www.swu.bg/bg/>, Bachelor's degrees in tourism: <https://www.swu.bg/bg/component/finder/search?q=%D1%82%D1%83%D1%80%D0%B8%D0%B7%D1%8A%D0%BC&Itemid=258>;
32. COLLEGE OF TOURISM - Blagoevgrad (2024), <https://cotur.bg/>;

Projects & Initiatives

33. CloudEARTH*i* (2024), <https://cloudearthi.com> ;
34. GreenSkills4VET (Green Skills for Vocational Education and Training (2016), About the project: <https://www.greenskills4vet.eu/about-the-project/>);
35. Green VET net (Green Vocational Education and Training (2022), <https://sakky.fi/fi/greenvetnet>);
36. Green Skills for Future Tourism (2022), About the project: <https://ecosystemeurope.org/%d0%b7%d0%b5%d0%bb%d0%b5%d0%bd%d0%b8-%d1%83%d0%bc%d0%b5%d0%bd%d0%b8%d1%8f-%d0%b7%d0%b0-%d0%b1%d1%8a%d0%b4%d0%b5%d1%89%d0%b8%d1%8f-%d1%82%d1%83%d1%80%d0%b8%d0%b7%d1%8a%d0%bc/?slide=1> ;



Green Host
CoVE Project



Co-funded by
the European Union

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project n° 10144003-GreenHost-ERASMUS-EDU-2023-PEX-COVE

37. "Scenario-based training for green transversal skills in tourism" (TRANS4GREEN) (2024), About the project: <https://mimbg.org/en/2024/02/19/new-project/>

Annex B - Country Report of Cyprus



GreenHost – Vocational Excellence, Police and Enterprise United for Hospitality Management Skills adapted on Environmental Footprint Methods

WP2/A1: Current situation and needs analysis of target groups

Country: Cyprus



**Co-funded by
the European Union**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project n° 10144003-GreenHost-ERASMUS-EDU-2023-PEX-COVE

Contents

1.	Theoretical Background	3
1.1.	Digital Skills.....	3
1.2.	Green Skills	4
1.3.	Social and Cultural Skills	4
2.	Survey Analysis	6
2.1.	Sociodemographic characterization.....	6
2.2.	Current situation analysis.....	8
2.2.1.	Digital Skills.....	8
	Green Skills	9
2.2.2.	Social and Cultural Skills	10
2.3.	Future needs analysis	11
2.3.1.	Digital Skills.....	11
2.3.2.	Green Skills	11
2.3.3.	Social and Cultural Skills	12
3.	Focus Group Analysis.....	13
3.1.	Digital skills.....	14
3.1.1.	Entrepreneurial sector	14
3.1.2.	Educational sector	14
3.1.3.	Sectoral sector.....	14
3.1.4.	Certification needs	14
3.2.	Green skills	14
3.2.1.	Entrepreneurial sector	14
3.2.2.	Educational sector	15
3.2.3.	Sectoral sector.....	15
3.2.4.	Certification needs	15
3.3.	Social and cultural skills.....	16
3.3.1.	Entrepreneurial sector	16
3.3.2.	Educational sector	16
3.3.3.	Sectoral sector.....	16
3.3.4.	Certification needs	16
4.	Conclusions.....	17
5.	References.....	20

1. Theoretical Background

1.1. Digital Skills

Digital skills have become increasingly essential in the tourism and hospitality sector in Cyprus, as they significantly enhance operational efficiency, customer engagement, and overall competitiveness. The integration of digital tools, such as online booking systems, social media marketing, and customer relationship management software, is now fundamental for businesses to meet the expectations of customers. Such tools improve travel booking experiences, personalized marketing strategies, as well as improve customer service, which are crucial for enhancing customer satisfaction and loyalty. A study by Stylianou-Lambert et al. (2021) highlights the critical role of digital literacy among tourism professionals in Cyprus, indicating that proficiency in using digital platforms can lead to significant improvements in service delivery. This digital proficiency allows businesses to streamline operations, reduce costs, and offer a more engaging and responsive customer experience, thus fostering a competitive edge in a crowded market.

Altun et al (2024) delve into educators' perceptions of ChatGPT within the specialized domains of tourism and hospitality education. While acknowledging ChatGPT's swift rise and advanced capabilities, this research aims to comprehensively explore educators' perspectives, advantages and concerns regarding its integration into academic settings. More specifically, the educators are concerned that overreliance on ChatGPT comprises a threat to critical thinking skills and poses an ethical dilemma of dependency. At the same time, the authors point out that achieving sustainable digital transformation requires a systematic approach which prioritizes the cultivation of digital skills in hospitality students.

Moreover, constantly evolving technologies require ongoing training and development in digital skills to ensure that the workforce can effectively leverage new tools and platforms. Research by Leonidou et al. (2020) underscores the importance of investing in continuous professional development to keep pace with technological changes and maintain the country's attractiveness as a tourist destination. This investment in digital skills is not only about adopting the latest technologies but also about understanding and anticipating the digital trends that influence consumer behaviour.

While many organizations in hospitality improve digital skills of their workforce, some employees resist these changes and refuse to upgrade their knowledge, skills and ways of doing things. Chaudhuri et al (2024) examine employee intentions to embrace digital technology from the perspective of upgrading their skills and knowledge and demonstrate that by improving employees' upskilling and reskilling abilities, innovative abilities and risk-taking abilities, it is possible to upgrade their skills and knowledge and to enhance their intention to embrace digital technology.

As digital transformation reshapes the tourism and hospitality landscape, businesses in Cyprus must prioritize upskilling their employees to remain relevant and competitive. These efforts are crucial for sustaining growth, enhancing the tourist experience, and maintaining Cyprus's status as a desirable destination in the global tourism market.

1.2. Green Skills

Tourism and hospitality industries are increasingly associated with the need for more initiatives on the adoption of green skills to ensure sustainability and environmental responsibility. Such initiatives refer to energy efficiency, waste reduction, water conservation, and adoption of eco-friendly products and processes, to reduce the footprint of the tourism and hospitality sectors. In this regard, firms in the Cypriot industry can become more sustainable and thus competitive (Farsari and Prastacos, 2020).

Cyprus as a small island absorbs intensive tourism activity during warm months and faces considerable climate challenges. Severe water shortages and increased temperatures affect tourism activities. Katemliadis and Markatos (2021) advocate for a stakeholder approach and better coordination to produce and implement policies that target sustainability.

Accordingly, training professionals in environmental management and sustainable practices in Cyprus can lead to greater adoption of green initiatives and firm performance (Zorpas et al., 2018).

1.3. Social and Cultural Skills

Social and cultural skills are vital in Cyprus's tourism and hospitality sector, greatly enhancing visitor experiences and fostering cultural understanding. These skills, such as effective communication, cultural sensitivity, and the ability to interact with diverse groups, are crucial for delivering exceptional service to international tourists. Christou et al. (2019) highlight the importance of social and cultural competencies in creating positive interactions between tourists and local communities, which boosts visitor satisfaction and encourages repeat visits. Additionally, Andriotis and Vaughan (2018) emphasize the necessity of training in cultural awareness and intercultural communication for hospitality professionals to meet the needs and expectations of a global clientele. From a practical point of view, Sharpley (2002) reports that very few agrotourism operators participated in training and education sessions relating to either the tradition/culture of Cyprus, and, thus, possess few specific business and service skills which are crucial for providing unforgettable experience to tourists. Although some of them had been offered 'familiarisation' trips to learn from the experience of rural tourism development in Greece and Ireland, supported by CTO (Cyprus Tourism Organization), such opportunities were made available only to those who had joined the agrotourism project at the start. Conversely, it was claimed that no training or education had been offered to more recent entrants to the project. As a result, only five of those interviewed felt they possessed skills necessary to provide a professional, quality service to tourists. Sharpley (2002) concludes that the lack of relevant cultural skills on the part of local communities, as evidenced by qualitative data, is a major challenge to development of argotourism in Cyprus, which is a uniquely Cypriot product based on traditional rural culture and philoxenia, and is supposed to protect and conserve existing natural and built environments, preserve and strengthen traditional lifestyle and culture.

Marneros et al (2020) assert that human relations and communication is the most important competency dimension compared to leadership, financial analysis, HRM and operational knowledge. Zopiatis et al (2014) focus on migrant labor in Cyprus hospitality industry and point out the poor

language skills of migrant employees is a barrier to better communication and has a subsequent negative impact on workplace behaviors and performance.

Enhancing these skills within the workforce not only improves service quality but also helps preserve and promote Cyprus's rich cultural heritage, making the island more appealing to culturally interested travelers.

2. Survey Analysis

Context

Population	Students, professionals, and teachers.
Data Collection Period	June-July 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	online survey
Total Samples Collected	25 students 35 professionals (employees) 11 professionals (business owners) 19 teachers

2.1. Sociodemographic characterization

The Cypriot sample considered for this study is composed of 90 individuals, out of them 27.8% are students, 21.1% are teachers, 38.9% - employees, 12.2% business owners, making professionals 51.7% the biggest group surveyed. We split professionals in two groups: employees and business owners, to gain a more nuanced insight in the skills these professional have.

Regarding their age, most of the students are between 18 and 24 years old. However, teachers and professionals are older, being the age range more frequently comprised between 35 and 54 years old (Table 1).

Table 1

What is your job?	What is your age?					Grand Total
	18-24	25-34	35-44	45-54	55-64	
Trainer		15.79%	36.84%	36.84%	10.53%	100.00%
Student	72.00%	24.00%	4.00%			100.00%
Employee	14.29%	25.71%	37.14%	20.00%	2.86%	100.00%
Business owner		27.27%	27.27%	36.36%	9.09%	100.00%
Grand Total	25.56%	23.33%	26.67%	20.00%	4.44%	100.00%

Regarding gender, the split is almost balanced in all groups, except for business owners who are predominantly male (Table 2).

Table 2

What is your gender?	What is your job?				Grand Total
	Employee	Student	Trainer	Business owner	
Male	45.71%	48.00%	57.89%	90.91%	53.93%
Female	54.29%	52.00%	42.11%	9.09%	46.07%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%

Table 3

What is your marital status?	What is your job?				Grand Total
	Employee	Student	Trainer	Business owner	
Single	45.71%	84.00%	10.53%	45.45%	48.89%
Married	45.71%	12.00%	78.95%	45.45%	43.33%
Divorced	5.71%	4.00%	10.53%	9.09%	6.67%
Widowed	2.86%	0.00%	0.00%	0.00%	1.11%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%

The results regarding the participants' marital status show that most of the students are single, whereas most trainers are married, while employees and business owners are balanced (Table 3).

Table 4

What is your academic status?	What is your job?				Grand Total
	Employee	Student	Trainer	Business owner	
Undergraduate	37.14%	64.00%	5.26%	45.45%	38.89%
Masters	42.86%	24.00%	21.05%	36.36%	32.22%
PhD	20.00%	8.00%	73.68%	9.09%	26.67%
High school	0.00%	4.00%	0.00%	9.09%	2.22%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%

Regarding the academic status, the highest group are people with undergraduate degrees (38.89%). In Students' category there are 64% with undergraduate degrees or most likely still studying for an undergraduate degree, while in trainers category 73.68% have PhDs.

Table 5

Do you have a professional experience?	What is your job?				Grand Total
	Employee	Student	Trainer	Business owner	
Yes	97.14%	56.00%	89.47%	100.00%	84.44%
No	2.86%	44.00%	10.53%	0.00%	15.56%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%

The majority of survey participants had professional experience (84.44%). 56% of students reported having professional experience with an average of 2.6 years. Professionals reported 15.4 years of experience, while trainers 13.7 years.

Table 6

What is your activity sector?	What is your job?				Grand Total
	Trainer	Student	Employee	Business owner	
Other	31.58%	56.00%	60.00%	45.45%	51.11%
Tourism	26.32%	20.00%	22.86%	27.27%	23.33%
Hospitality	36.84%	24.00%	8.57%	27.27%	21.11%
Restaurant	5.26%	0.00%	8.57%	0.00%	4.44%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%

The majority of respondents indicated being occupied in “other” sector of activity, which is likely the government and education. Tourism and hospitality has almost an equal split 23 and 21 percent, while the restaurants were least represented.

2.2. Current situation analysis

2.2.1. Digital Skills

Table 7 presents averages of digital skills for students, trainers and professionals. It is interesting to observe that students reported higher proficiency with the use of generative AI applications, web and app development, use of digital technologies and use of robots than the trainers. This is not surprising, considering that the trainers in hospitality likely did not have a formal education in those areas, while generation Z to whom most students belong, have grown up with access to internet and portable digital technology, and are more comfortable with it, even if not necessarily digitally literate. Thus, students showed lower proficiency in secure information processing, privacy and ethics, business intelligence and office applications. The business owners showed the lowest proficiency in the use of office application, digital privacy, and AI.

Table 7

Digital skills	Students	Trainers	Employees	Business owners
Secure information processing	4.12	5.11	4.80	4.00
Use of office applications	5.68	6.37	6.14	4.64
Use of digital marketing systems and communications platforms	4.04	4.84	4.63	4.09
Digital privacy and ethics	4.12	4.42	4.80	3.55
Digital business analysis, business intelligence, data-driven decision making	3.56	4.68	4.63	3.73
Use of robots	2.96	2.68	3.23	3.36
Use of digital technologies to create guest experiences	3.52	3.42	3.77	3.45
Use of generative AI applications	4.32	4.21	3.91	3.55
Web & app development & programming	3.52	3.26	2.77	3.27

2.2.2. Green Skills

As far as green skills are concerned, the students reported higher competency in management of waste, compared to trainers, which can probably be attributed to higher attention given to the topic in secondary schools. Employees ranked highest on the efficient use of resources, and on communication about the organization's efforts towards a green economy.

Table 8

Green skills	Students	Trainers	Employees	Business owners
Efficient use of resources (e.g. energy, water, materials)	4.08	4.11	4.89	3.55
Promotion and encouragement of sustainable practices among guests	3.72	4.58	4.80	4.00
Understanding of environmental laws and regulations	4.00	4.16	4.77	4.18
Communication about the organization's efforts towards a green economy	3.88	4.68	4.83	4.45
Measurement and management of waste	3.84	3.58	4.43	3.64
Measurement and management of CO2 emissions	3.20	3.32	3.69	3.55
Adoption of environmental certifications management systems	3.28	3.53	3.54	3.27

Green procurement and greening the supply chains	3.00	3.32	3.54	3.09
Green marketing and product development	3.44	3.68	3.77	3.73
Use of technology to speed up the green transition	3.08	3.68	3.94	3.36

2.2.3. Social and Cultural Skills

Compared to digital and green skills, all the groups reported higher proficiency in social and cultural skills with most of averages being 6 and 7.

Table 9

Social and cultural skills	Students	Trainers	Employees	Business owners
Provide excellent customer service	5.12	5.95	5.71	5.73
Communicate and interact with people from different cultural and social backgrounds	5.96	6.37	6.20	5.73
Support diversity, equality and inclusivity	6.08	6.21	6.23	5.73
Communicate effectively with guests and colleagues	6.04	6.53	6.57	6.00
Adaptability to change and handle unexpected situations	5.72	6.11	6.40	5.82
Communicate effectively with guests in their native language	4.32	4.42	4.51	4.00
Resolve conflicts	5.36	5.68	5.97	5.55
Understand the cultural setting of the own destination and share this information with guests	5.12	5.42	5.83	5.27
Work effectively in a team	6.2	6.26	6.49	5.91
Analytical skills	6.04	6.32	6.40	6.00
Critical thinking	6.36	6.42	6.63	6.27
Learning-oriented	6.48	6.79	6.51	6.18
Foreign languages	5.44	5.00	4.77	4.82

2.3. Future needs analysis

2.3.1. Digital Skills

As expected all the groups reported higher expected level of future digital skills. E.g. trainers gave high importance to generative AI applications (7.11), which indicates an emerging need of integrating AI into educational process. Also the trainers ranked high the use of office applications.

Table 10

Future digital skills	Students	Trainers	Employees	Business owners
Secure information processing	5.56	6.26	5.60	4.64
Use of office applications	6.8	7.00	6.63	4.91
Use of digital marketing systems and communications platforms	5.88	6.95	5.86	4.73
Digital privacy and ethics	5.36	6.47	5.80	4.55
Digital business analysis, business intelligence, data-driven decision making	5.68	6.68	5.86	4.82
Use of robots	5.2	5.84	4.74	4.91
Use of digital technologies to create guest experiences	5.72	6.89	5.77	4.82
Use of generative AI applications	6.12	7.11	5.60	5.00
Web & app development & programming	5.36	6.00	5.03	4.55

2.3.2. Green Skills

All the groups indicated higher level of green skills needed in the future. The averages are reported in Table 11.

Table 11

Future green skills	Students	Trainers	Employee	Business owners
Efficient use of resources (e.g. energy, water, materials)	5.20	6.16	6.06	4.64
Promotion and encouragement of sustainable practices among guests	5.12	6.11	6.09	5.09
Understanding of environmental laws and regulations	5.40	6.32	5.94	4.82
Communication about the organization's efforts towards a green economy	5.48	6.00	6.00	5.09

Measurement and management of waste	5.44	6.21	5.86	4.73
Measurement and management of CO2 emissions	5.00	6.16	5.46	4.55
Adoption of environmental certifications management systems	5.24	6.32	5.60	5.00
Green procurement and greening the supply chains	5.04	6.47	5.69	5.09
Green marketing and product development	5.12	6.53	5.63	5.18
Use of technology to speed up the green transition	5.52	6.63	5.89	5.09

2.3.3. Social and Cultural Skills

Table 12

Future social and cultural skills	Students	Trainers	Employee	Business owners
Provide excellent customer service	6.8	7.37	6.71	6.18
Communicate and interact with people from different cultural and social backgrounds	7.04	7.32	6.89	6.00
Support diversity, equality and inclusivity	6.84	7.32	6.86	6.18
Communicate effectively with guests and colleagues	7.16	7.53	7.00	6.27
Adaptability to change and handle unexpected situations	7.2	7.32	7.00	6.00
Communicate effectively with guests in their native language	6.6	5.89	6.31	5.18
Resolve conflicts	7.04	7.11	6.97	5.82
Understand the cultural setting of the own destination and share this information with guests	6.52	6.84	6.83	5.64
Work effectively in a team	7.36	7.32	7.14	6.09
Analytical skills	7.4	7.47	7.14	6.18
Critical thinking	7.48	7.47	7.26	6.45
Learning-oriented	7.4	7.58	7.11	6.45
Foreign languages	7.04	6.32	6.31	5.09

All the survey participants indicated higher level of cultural and communication skills needed in future, with most values ranging between 6 and 7. Especially, highly were rated “communicating effectively with guests and colleagues” and “learning oriented attitudes”.

3. Focus Group Analysis

Context

Participants	Sectoral, educational, entrepreneurial.
Data Collection Period	July 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	online focus group
Total Samples Collected	3 of sectoral 3 of educational 2 of entrepreneurial

In Cyprus 8 participants across various industries and experience levels from the sectoral, educational and entrepreneurial sectors participated in the focus group which was held online and discussed the below questions:

Questions:

1. What are the most important skills for an employee in this activity sector?
2. What is the importance of digital skills to this activity sector?
3. What are the most needed digital skills for the employees?
4. What are the certification needs regarding digital skills?
5. What is the importance of green skills to this activity sector?
6. What are the most needed green skills for the employees?
7. What are the certification needs regarding green skills?
8. What is the importance of social/cultural skills to this activity sector?
9. What are the most needed social/cultural skills for the employees?
10. What are the certification needs regarding social/cultural skills?

Below is a summary of the discussion/answers provided.

3.1. Digital skills

3.1.1. Entrepreneurial sector

The participants from the entrepreneurial sector believe the most important skills for the sector still have to do with providing excellent customer service with clear and effective communication skills, while they need to upskill in crisis management and organizational skills, such as effective resource allocation. They also expressed the opinion that regardless of an individual's role in the industry *all* people in the hospitality and tourism industry should have upskilled digital skills to be competitive. They particularly focused on the importance of digital marketing and process optimization in services (e.g., linking hotel services such as booking, room cleaning, ticketing, spa, etc).

3.1.2. Educational sector

Participants from the educational group discussed the importance of increasing efficiency to optimize processes through the use of digital tools, provide better customer service through online booking systems and CRM to improve services, and work towards innovations, via the application of new technologies to improve services and processes. Also, all training provided shall be directed towards market demands and blended knowledge on current trends. Finally, they identified a trend to link tourism and hospitality industries with VR/AR technologies, which should be relevant not only to data management, but also with the customer experience and interaction (e.g., customers with disabilities on museums).

3.1.3. Sectoral sector

Sectoral participants emphasized the need to enhance the industry's digital skills and the need for institutions and governments to support the industry players in improving their processes. Also, they discussed the need for better data management, as the ability to collect and analyse data to improve services and cyber security systems to protect customer and business data.

3.1.4. Certification needs

Certification needs include:

- Hosting Management Software Certifications: Like Opera, Fidelio, etc.
- Digital Marketing Certifications: Google Analytics, Facebook Blueprint, etc.
- Cybersecurity Certifications: CISSP, CEH, etc.
- LinkedIn learning
- Micro credential courses

3.2. Green skills

3.2.1. Entrepreneurial sector

The discussants recognized that green skills and knowledge are becoming more important in their respective sectors. They confirmed that owners and employees should have knowledge on how to use technology to upgrade "green" solutions to problems. They particularly identified the need to know more on water management, energy consumption solutions, recycling and waste management and renewable energy. They asked for more central support on these issues and want to bring the industry closer to the authorities. They also showcased that small steps towards greener practices matter to employees and customers, and one of their biggest challenges is to approach holistically all environmental initiatives and change the mentality of their customers, employees and the society.

3.2.2. Educational sector

Educators believe that good practices should be shared across businesses. More initiatives should be adopted that involve customers, such as recycling efforts, glass making programmes, alternative water consumption packaging. They, also, identified the need for more initiatives in the following:

- Energy management: Ability to reduce energy consumption through efficient lighting and heating systems.
- Water management: Water saving and reuse techniques, such as using low-flow devices.
- Recycling and waste reduction: Knowledge in waste management and promotion of recycled materials.
- Environmental education: Understanding the principles of sustainability and environmental awareness.
- Sourcing sustainable products: Selecting products and suppliers that meet environmental standards.
- Green certifications: Skills to obtain and maintain ecological certifications.
- Use of renewable energy sources: Understanding and applying technologies such as solar panels.
- Communication and promotion of sustainability: Ability to inform and sensitize customers and colleagues about green practices.
- Innovation: Application of new technologies and practices to improve environmental performance.
- Compliance with environmental regulations: Understanding and adhering to relevant legal requirements and regulations.

3.2.3. Sectoral sector

The participated sectoral group focused mostly on the need to incorporate technologies to optimize systems that protect the environment. They also pinpointed the requirement for firms in the industry to incorporate the required licenses in their operations to enhance their return of investment and staff participation on their initiatives. The role of technology is important in improving environmental efficiencies.

3.2.4. Certification needs

1. ISO environmental standards: ISO 14001 certification for environmental management systems.
2. Green quality labels: Labels such as Green Key, EU Ecolabel and LEED that recognize environmental responsibility.
3. Education and training: Education programmes to develop green skills and obtain relevant certifications.
4. Energy and water management: Energy and water efficiency certifications, such as Energy Star.
5. Waste management: Certifications for proper waste management and recycling.
6. Renewable energy: Certifications confirming the use of renewable energy sources.
7. Supply of sustainable products: Certifications for the sustainable supply and use of ecological products.
8. Health and safety: Certifications that ensure the health and safety of employees and customers.

9.Regulatory compliance: Adherence to local and international regulations for environmental management.

10. Continuous improvement: Commitments to continuously improve sustainability practices and processes through certifications.

3.3. Social and cultural skills

3.3.1. Entrepreneurial sector

Entrepreneurs believe that their employees should display empathy towards their customers and adaptability to their needs. It is important to communicate effectively with others and be able to understand and respect other cultures and backgrounds. They feel that they can empower that by leading by example, set the rules and provide training. They should promote the company's culture of integration and excellent customer service. Finally, the highlighted feedback to/from the company and to/from the employees is a powerful tool to improve social and cultural skills. Another important point made is the importance of choosing the right and trained employees to fit the company's culture to avoid culture change and minimize training requirements.

3.3.2. Educational sector

Educators discussed on the importance of firms investing on the emotional and cultural intelligence of their employees, to enable customer satisfaction and services excellence. They believe that students/employees should be trained in observing and learning by experience, e.g. through role playing or different exercises improving observation and reaction abilities.

3.3.3. Sectoral sector

Sectoral participants believe that social and cultural skills are critical to better customer service, as they allow employees to understand and meet the needs and expectations of customers from different cultures. They also improve collaboration with co-workers and customers. The most important social and cultural skills are believed to be teamwork, empathy, and communication.

3.3.4. Certification needs

- Training programme and seminars on intercultural communication and management
- Customer service training
- Local history/tradition seminars

4. Conclusions

Digital Skills

The data presents a comparison of digital skills among students, trainers, employees, and business owners, revealing distinct patterns in proficiency levels. Students, primarily from Generation Z, reported higher proficiency in using generative AI applications, web and app development, and digital technologies, likely due to their upbringing in a digitally connected world. Trainers, on the other hand, exhibited lower proficiency in these areas, possibly because they didn't receive formal education in these rapidly evolving technologies. Interestingly, students showed less proficiency in more specialized and security-related skills, such as secure information processing, privacy and ethics, business intelligence, and the use of office applications. Trainers and employees outperformed students in these areas, reflecting their experience and possibly more targeted training. Business owners displayed the lowest proficiency in office applications, digital privacy, and AI, which may indicate a need for further digital skills development among leadership to keep pace with technological advancements in the industry.

The future needs analysis indicates that all groups—students, trainers, employees, and business owners—anticipate higher demand for digital skills in the future. Trainers, in particular, emphasized the growing importance of generative AI applications (7.11) and office applications, suggesting a need to integrate AI into the educational process. Across all groups, there is a notable increase in the expected proficiency in areas such as secure information processing, digital privacy and ethics, and digital business intelligence. While trainers consistently rank these skills higher, reflecting their awareness of the evolving digital landscape, business owners anticipate the lowest future needs, particularly in AI, digital privacy, and web development, which may indicate a slower adaptation to technological advancements in leadership roles.

The focus group discussions revealed varying digital skill needs across sectors. Participants from the entrepreneurial sector highlighted the importance of excellent customer service, effective communication, and the need to upskill in crisis management and organizational skills. They emphasized the critical role of digital marketing and process optimization to remain competitive. The educational sector participants stressed optimizing processes and improving customer service through digital tools, aligning training with market demands, and integrating new technologies like VR/AR to enhance customer experience. Sectoral participants underscored the necessity of improved data management, cyber security, and institutional support for digital skill enhancement. Additionally, certification needs identified include hosting management software, digital marketing, cybersecurity, LinkedIn learning, and micro-credential courses.

Green Skills

The analysis of current green skills reveals notable differences across various groups, including students, trainers, employees, and business owners. Students demonstrated higher competency in waste management compared to trainers, likely due to the greater emphasis on environmental education in secondary schools. This suggests that younger generations are being more effectively educated on sustainability practices early on. Employees, on the other hand, ranked highest in their ability to efficiently use resources like energy, water, and materials, and in their communication efforts about their organization's green initiatives. This indicates that employees are more actively involved in implementing and promoting sustainability within their workplaces. Trainers generally performed better than students in areas such as promoting sustainable practices among guests, understanding

environmental laws and regulations, and adopting environmental certification management systems. This reflects their broader experience and possibly more targeted training in these areas. However, trainers still lag behind employees in several key areas, suggesting room for improvement. Business owners, however, reported lower proficiency across most green skills, particularly in the efficient use of resources and the measurement and management of CO2 emissions. This could point to a gap in the adoption of green practices at the leadership level, where there might be less focus on sustainability initiatives. As a result, there may be a need for increased awareness and training for business owners to support a more comprehensive green transition in the industry. The overall findings highlight the importance of targeted green skills training across all levels of the workforce to ensure a cohesive and effective approach to sustainability.

The future needs analysis for green skills reveals a consensus across all groups on the increasing importance of various sustainability competencies. All groups anticipate a higher demand for skills related to the efficient use of resources, including energy and materials, with trainers and employees projecting the highest future needs in this area. Similarly, there is a strong focus on promoting sustainable practices among guests and understanding environmental laws and regulations, with trainers again ranking these skills as crucial. Communication about green initiatives and the measurement and management of waste are also expected to gain importance, reflecting a growing emphasis on transparency and effective waste management. Skills in managing CO2 emissions, adopting environmental certifications, and green procurement are recognized as increasingly vital, with trainers predicting the highest future needs in these areas. Green marketing, product development, and the use of technology to accelerate the green transition are anticipated to become more significant, with trainers and employees forecasting the greatest demand. Overall, the analysis underscores a unified expectation for enhanced green skills across all sectors, with a particular focus on resource efficiency, waste management, regulatory understanding, and technological innovation to support a sustainable future.

The focus group discussions highlight the growing importance of green skills across various sectors. In the entrepreneurial sector, participants stressed the need for enhanced knowledge and technology to address environmental issues such as water management, energy consumption, recycling, and renewable energy. They emphasized the importance of central support and closer collaboration with authorities, noting that incremental steps towards greener practices can significantly impact employees and customers. A key challenge identified was adopting a holistic approach to environmental initiatives and shifting the mentality of stakeholders. In the educational sector, there was a call for sharing best practices and increasing initiatives that involve customers, such as recycling and sustainable packaging. Educators highlighted the need for improved skills in energy and water management, recycling, environmental education, sourcing sustainable products, green certifications, and renewable energy. They also emphasized the importance of communication about sustainability and innovation to enhance environmental performance and compliance with regulations. The sectoral group focused on incorporating technologies to optimize environmental protection systems and the necessity for firms to acquire relevant licenses to improve ROI and staff engagement. They underscored the role of technology in advancing environmental efficiencies. Certification needs discussed included ISO environmental standards, green quality labels, energy and water management certifications, waste management, renewable energy, sustainable product supply, health and safety, regulatory compliance, and continuous improvement. These certifications are crucial for validating green practices and ensuring adherence to environmental standards.

Social and cultural skills

The survey results indicate that all groups—students, trainers, employees, and business owners—report higher proficiency in social and cultural skills compared to digital and green skills, with most average scores ranging between 6 and 7. Key strengths identified include effective communication with guests and colleagues, support for diversity, equality, and inclusivity, and adaptability to change. Employees and trainers scored particularly high in conflict resolution, teamwork, and critical thinking. Despite these strengths, proficiency in foreign languages was lower across all groups. Overall, social and cultural skills are regarded as areas of relative strength, emphasizing effective interpersonal interactions and cultural awareness.

The survey results for future social and cultural skills show a consensus across all groups—students, trainers, employees, and business owners—that higher levels of these skills will be needed. Most future skill ratings fall between 6 and 7, with a particular emphasis on the ability to communicate effectively with guests and colleagues and a strong orientation towards learning. Key areas identified for future development include providing excellent customer service, interacting with diverse cultural backgrounds, and supporting diversity and inclusivity. Skills such as adaptability to change, conflict resolution, and teamwork are also highlighted as increasingly important. Notably, proficiency in foreign languages is anticipated to be crucial but is expected to remain a lower priority compared to other skills.

The focus group discussions emphasize the growing importance of social and cultural skills across various sectors. Entrepreneurs stress the need for employees to exhibit empathy, adaptability, and effective communication, advocating for leading by example and providing targeted training to enhance company culture and customer service. Educators highlight the value of investing in emotional and cultural intelligence, recommending experiential learning techniques like role-playing to improve skills. Sectoral participants agree that strong social and cultural skills, such as teamwork and empathy, are essential for meeting diverse customer needs and fostering better collaboration. Certification needs include training programs on intercultural communication, customer service, and local history to further develop these skills.

5. References

- Altun, O., Saydam, M. B., Karatepe, T., & Dima, Ş. M. (2024). Unveiling ChatGPT in tourism education: exploring perceptions, advantages and recommendations from educators. *Worldwide Hospitality and Tourism Themes*, 16(1), 105-118.
- Andriotis, K., & Vaughan, D. R. (2018). Urban residents' attitudes toward tourism development: The case of Crete. *Journal of Travel Research*, 57(5), 582-596.
- Chaudhuri, R., Chatterjee, S., Vrontis, D., Galati, A., & Siachou, E. (2023). Examining the issue of employee intentions to learn and adopt digital technology. *Worldwide Hospitality and Tourism Themes*, 15(3), 279-294.
- Christou, E., Farmaki, A., & Evangelou, G. (2019). Tourists' perceptions of emotional experiences in the hospitality industry: The role of cultural contact. *Tourism Management Perspectives*, 31, 85-94.
- Farsari, Y., & Prastacos, P. (2020). Sustainable tourism indicators: Pilot estimation for tourism destinations in the Mediterranean Region. *Tourism Management Perspectives*, 33, 100616.
- Katemliadis, I., & Markatos, G. (2021). Stakeholders' involvement in sustainability planning and implementation: the case of Cyprus. *Worldwide Hospitality and Tourism Themes*, 13(6), 709-718.
- Leonidou, C. N., Leonidou, L. C., Fotiadis, T. A., & Zeriti, A. (2020). Resources and capabilities as drivers of hotel environmental marketing strategy: Implications for competitive advantage and performance. *Tourism Management*, 81, 104153.
- Marneros, S., Papageorgiou, G. & Efstathiades, A. (2020). Identifying key success competencies for the hospitality industry: the perspectives of professionals, *Journal of Teaching in Travel & Tourism*, 20:4, 237-261.
- Sharples, R. (2002). Rural tourism and the challenge of tourism diversification: the case of Cyprus. *Tourism management*, 23(3), 233-244.
- Stylianou-Lambert, T., Boukas, N., & Christodoulou-Yerali, M. (2021). Heritage tourism on an island: The role of museums. *Journal of Heritage Tourism*, 16(2), 192-210
- Zopiatis, A., Constanti, P., & Theocharous, A. L. (2014). Migrant labor in hospitality: The Cyprus experience. *International Journal of Hospitality Management*, 37, 111–120.
- Zorpas, A. A., Voukkali, I., & Loizia, P. (2018). Sustainable waste management in the hospitality sector: New trends and innovations. *Waste Management*, 74, 104-111.

Annex C - Country Report of Greece



**GreenHost – Vocational Excellence, Police and Enterprise
United for Hospitality Management Skills adapted on
Environmental Footprint Methods**

**WP2/A1: Current situation and needs analysis of target
groups**

Country: Greece



**Co-funded by
the European Union**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project n° 10144003-GreenHost-ERASMUS-EDU-2023-PEX-COVE

Contents

1. Theoretical Background	2
1.1. Digital Skills	2
1.2. Green Skills.....	3
1.3. Social and Cultural Skills.....	4
2. Survey Analysis	6
2.1. Sociodemographic characterization	6
2.2. Current situation analysis	7
2.2.1. Digital Skills.....	7
2.2.2. Green Skills.....	7
2.2.3. Social and Cultural Skills.....	8
2.3. Future needs analysis.....	8
2.3.1. Digital Skills.....	8
2.3.2. Green Skills.....	9
2.3.3. Social and Cultural Skills.....	9
3. Focus Group Analysis.....	10
3.1. Digital skills.....	10
3.2. Green skills.....	11
3.3. Social and cultural skills	12
4. References.....	13

1. Theoretical Background

1.1. Digital Skills

In the tourism, hospitality, and restaurant sectors, digital skills are paramount for enhancing operational efficiency and maintaining a competitive edge. Implementing ICT systems is crucial, involving the use of innovative models to streamline operations and confront market competition effectively. E-business frameworks play a significant role in reducing transaction costs and time, facilitating smoother business processes. Proficiency in data management and analysis is essential for customer relationship management (CRM). By using digital tools to collect and analyze customer data, businesses can understand market trends and consumer needs, ensuring a more personalized and efficient service delivery. Transitioning from traditional physical asset management to managing knowledge assets fosters a more informed and agile business approach, crucial for staying ahead in a dynamic market.

Furthermore, effective online marketing and communication strategies are essential in promoting green initiatives and engaging with customers. Utilizing digital platforms to provide information on sustainable practices helps foster positive customer relationships and enhances brand loyalty. Ensuring the protection of digital assets and maintaining data privacy standards is vital to building and maintaining customer trust. Cybersecurity measures are necessary to safeguard sensitive information and uphold the integrity of business operations. Therefore, a comprehensive digital skill set, encompassing ICT proficiency, data management, and online communication, is indispensable for success in the tourism, hospitality, and restaurant sectors. These digital competencies enable businesses to adapt to technological advancements and evolving consumer expectations, ensuring they remain competitive and responsive to market demands.

Digital transformation is particularly critical for the Greek tourism sector, impacting all aspects of the value chain from decision-making to service delivery. The workforce must enhance its digital skills, including basic competencies like using computers and internet applications, and advanced skills such as Property Management Systems (PMS), Global Distribution Systems (GDS), and digital marketing. Soft skills like communication and problem-solving remain essential. SMEs in Greece face challenges in adopting digital technologies due to limited resources and the traditional family-run business model. The COVID-19 pandemic has accelerated the need for digital tools, revealing both strengths and weaknesses in the sector. There is a pressing need for better coordination between educational institutions and the industry to ensure curricula meet market demands, alongside continuous vocational training and upskilling. The state plays a vital role in facilitating digital skill development through subsidies and training support. Specific needs in Greece include sustainability managers, revenue managers, and experts in digital marketing and cybersecurity. Enhancing digital skills is essential for maintaining operational efficiency, improving service quality, and staying competitive in the dynamic tourism market.

More specifically,

Tourism is an area with the most active introduction of digital technologies (Morozov & Morozova, 2019). It creates employment for people of different ages and skill levels all around the world. According to Eurostat (2020), 11.7 million people, 9% of the labour market worked in tourism. Nowadays, people can plan their whole travels online (flight and accommodation booking, payments, hotel check in, sightseeing tours, reservations, transportation, etc.).

Adeyinka-Ojo et al. (2020) separate skills in “soft” and “hard” when talking about skills in the use of different technologies. Soft skills refer to communication skills, problem solving and critical thinking,

while hard skills include technical, operational, strategic and basic word skills. Internet skills are considered as hard skills (Deursen and van Dijk, 2010). The curriculum of people working in this field should include digital skills such as mobile technologies and apps, automation technologies, cloud technology, robotics and artificial intelligence, together with security issues (privacy, cybersecurity and online safety) (Garcia & Ruiz, 2020).

Restaurant sector is another industry sector affected by digital transformation, as well. Examples of this change are the mobile devices (smartphones and tablets) used both by customers and staff. Ordering while being in the restaurant itself can be completed through QR code. Moreover, orders by distance are made through many different platforms, that cooperate with the restaurant, giving bonuses and extra offers through recommendations etc. to the customers (Alt, 2021). Thus, this digital change means entrepreneurs/managers must keep up with the new reality in order to run competitive restaurants (Martin-Martin et al., 2022).

Obviously, technology changes have influence dramatically **hospitality** industry, making the existence of well -digitally- educated employees in this field an important issue in order to make progress (Im, 2011). As mentioned above, the fact that people plan their travels totally online, digital education becomes an enormous need, since its use gives the opportunity to hospitality businesses to personalize customer experiences. Nevertheless, COVID-19 outbreak has promoted hotels' digitalization, meaning the requirement of digital skills in order to support this process (Antonio & Rita, 2021).

1.2. Green Skills

Green skills are essential in the tourism, hospitality, and restaurant sectors for promoting sustainability and meeting regulatory standards. Implementing sustainable business practices, such as resource efficiency, is crucial for minimizing energy waste and water usage, thereby managing resources more sustainably. Adopting environmental management systems plays a vital role in reducing environmental impacts and achieving compliance with regulatory requirements. These systems help businesses monitor and manage their environmental footprint effectively. Furthermore, green marketing and communication strategies are vital for promoting an eco-friendly brand image and attracting environmentally conscious customers. This involves developing and marketing products and services that meet sustainability standards, thereby appealing to a growing market segment concerned with environmental issues.

In addition to these practices, understanding and complying with environmental regulations ensures that businesses operate within legal frameworks, integrating ethical practices into their operations and supply chains to enhance overall sustainability. Participating in green training programs is essential for enhancing the understanding and implementation of sustainable practices among employees. Engaging employees in sustainability efforts fosters a culture of environmental responsibility within the organization, making sustainability a core value rather than just a compliance requirement. Such training programs help in developing a workforce that is knowledgeable about and committed to sustainable practices, thereby improving the overall environmental performance of the business. By prioritizing these green skills, businesses in the tourism, hospitality, and restaurant sectors can significantly contribute to environmental conservation while also appealing to a more eco-conscious customer base.

The Greek tourism sector urgently needs sustainable development to align travellers' preferences for eco-friendly travel with industry practices. The COVID-19 pandemic has highlighted this need, pushing for faster adoption of sustainable strategies and digital tools. A survey of 204 Greek tourism organizations in early 2023 revealed that while environmental actions like energy and water

management are common, significant barriers remain, including high costs, infrastructure limitations, and lack of expertise. Government support through financial incentives and regulatory frameworks is crucial.

Despite global trends favoring sustainable travel, many Greek enterprises believe travellers won't pay extra for sustainable options. Sustainability certifications are also rare due to low market interest and awareness. Small and micro enterprises, which dominate the sector, are particularly behind in sustainability efforts due to limited resources.

To address these challenges, Greek tourism businesses need to integrate sustainability into their strategies, invest in innovative solutions, and collaborate with stakeholders. Government initiatives should include clear strategies, financial incentives, and a national sustainable tourism program to standardize and promote sustainability practices. This combined effort is essential for the sector's long-term resilience and competitiveness.

More specifically,

Tourism has a great effect on the environment footprint. Therefore, research shows that tourism employees should be conscious of the environment and be committed to the target of preserving it (Kamis et al., 2017; Vona et al., 2018). Green skills involve the adaption of products, services and processes to the climate change and the relation to the environmental regulations (Martinez-Fernandez et al., 2013). More specifically, those skills include: skills in water/energy consumption, water management, recycling and composting, conservation of biodiversity, promotion of sustainable transport, promotion of products and services which are environmentally friendly, and, knowledge of climate change (Carlisle et al., 2023).

Likewise, tourism, the concept of environmental sustainability has a huge impact in the **hospitality** sector. Greening seems to have a positive effect on hotel's performance (Kusa et al., 2023). The term "green" hotels/accommodation refers to hotels that are environmentally friendly, since they are concerned about water and energy consumption, while providing high quality services. Those hotels try to save water, reduce waste and use recycling material. These aspects mean that hotel managers should take into serious consideration all those policies which contribute to an eco-friendly hospitalism industry (Herath et al., 2023).

According to studies, **restaurant** industry has a negative effect on the environment (Cochran et al., 2018; Kasim & Ismail, 2012), since huge amounts of food are thrown together with enormous quantities of water and energy. Recently, restaurants started adopting green practices such leftover management (Trafialek et al., 2019), better forecasting of demand (Mu et al., 2019), usage of local and certified organic products in their menus (Jang et al., 2011). The recent use of QR code instead of menus in paper has saved both paper and ink.

1.3. Social and Cultural Skills

Social and cultural skills are pivotal for fostering a positive and inclusive environment in the tourism, hospitality, and restaurant sectors. Understanding and respecting diverse cultural backgrounds and social norms enhance the guest experience and promote cultural sensitivity. Effective communication and interpersonal skills are essential for engaging with guests and addressing their needs, ensuring a high level of customer satisfaction. Training and education programs focused on cultural awareness and social responsibility encourage employees to embrace diversity and contribute positively to the community. Additionally, promoting local culture and traditions through sustainable tourism practices not only enriches the guest experience but also supports local communities, preserving cultural heritage and fostering economic development. These skills help create a welcoming and culturally rich environment, enhancing the overall appeal and sustainability of the hospitality and tourism sectors.

Furthermore, social and cultural skills play a crucial role in maintaining competitiveness, meeting regulatory requirements, and contributing to sustainable and inclusive development. Cultural awareness and sensitivity involve understanding and respecting the diverse backgrounds of both customers and employees. Training staff to be culturally sensitive ensures respectful and inclusive interactions, enhancing the overall customer experience. Promoting local culture and traditions within business practices enriches the cultural experience for tourists and supports local communities. Collaborating with local communities to preserve cultural heritage fosters sustainable tourism. Enhancing language skills among staff improves communication with international tourists, and offering multilingual services caters to a diverse customer base. Implementing practices that protect and promote cultural heritage sites, along with educating tourists on the importance of cultural preservation and responsible tourism, ensures the protection and appreciation of cultural heritage. These skills are essential for creating inclusive experiences, fostering a respectful work environment, and supporting the overall sustainability and success of the tourism, hospitality, and restaurant sectors.

Social and cultural skills are vital in the Greek tourism and hospitality sector due to the country's unique position between East and West and its rich cultural heritage, including 18 UNESCO World Heritage Sites. These skills enhance visitor experiences and maintain Greece's appeal as a top tourist destination. Hospitality workers must have a deep understanding of local history and culture, strong communication skills, and language proficiency to interact effectively with international tourists. Cultural sensitivity and awareness are also crucial, ensuring respectful interactions with guests from diverse backgrounds. This competency is fostered through specialized vocational training and education programs.

The sector must continuously adapt to evolving tourist preferences, including the growing demand for sustainable and culturally immersive travel experiences. However, enhancing social and cultural skills faces challenges such as high investment costs, infrastructure limitations, and a lack of expertise. Addressing these challenges through government support, financial incentives, and industry collaboration is crucial for sustainable growth.

More specifically,

The phenomenon of global **tourism** has a huge impact on the host country and increases the exchange and interaction between people (Amoiradis et al., 2021). In this context many factors influence this interaction including social and cultural factors. One of the most important social skills is effective communication between tourists from different cultural and social backgrounds and the host destination (Dujmovic & Vitasovic, 2022). Moreover, it is important for tourism managers and staff to be able to interact with respect with people with different culture, language, religion, customs, style, behavior, and values. Thus, cultural awareness is an essential skill that help customers feel comfortable and get their needs satisfied.

The importance of social skills and cultural sensitivity are also mentioned in **hospitality** industry (Oktadiana & Djauhar, 2011). First of all, non-verbal communication is essential and provides customers with the sense that the host has genuine interest. Secondly, the ability to involve in a conversation leads to a more personalized experience. Finally, one of the most important social skills is the ability to listen to the customer, meaning that customers' needs and expectations are acknowledged and met (Nissen et al., 2019). Furthermore, elements such as valuing different cultures, creating new experiences with others, listening and observing how people interact, along with the acknowledgment of foreign languages are very crucial in the hospitality sector (Tziora et al., 2016).

Undoubtedly, social skills play an essential role in the **restaurant** sector. Effective communication skills can provide excellent customer service, along with cultural openness and awareness. Staff in restaurants often needs to cooperate with colleagues from different countries and cultures, so working effectively within this kind of team is very important. Communication in foreign languages is very important when interacting with people from different social and cultural backgrounds (Tziora et al., 2016).

In summary, social and cultural skills are essential for the Greek tourism and hospitality sector to provide exceptional visitor experiences and maintain its competitive edge in the global market. Continuous improvement and adaptation to changing tourist demands are key to the sector's long-term success and sustainability. These skills help create inclusive experiences, foster a respectful work environment, and support the overall sustainability of the tourism, hospitality, and restaurant sectors in Greece.

2. Survey Analysis

Context

Population	Students, professionals, and teachers.
Data Collection Period	May – June 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	Online surveys, physical surveys
Total Samples Collected	27 of students/learners 61 of professionals 26 of teachers/trainers 114 in total

2.1. Sociodemographic characterization

The total sample size of the survey reached a total of 114 individuals from different age groups. As it is evident in the first table, the sample predominately consists of middle-aged individuals that are within the **45-54** category, the secondary age group consists of individuals that belong to the **55-64** category. The third category is the **35-44** age group, followed by the **25-34** category. Lastly, the youngest category includes the **18-24** age group, while the category **65+** is last in representation.

Table 1: Age	18-24	25-34	35-44	45-54	55-64	65+
Sample	18	20	21	29	25	1

In terms of gender dynamics, there is a significant female majority with 69 female participants while the male population was represented by 44 individuals. The mix is completed by the participation of 1 non-binary person. The marital status of the participants is pretty balanced, as 53 participants declared that they are married while 50 indicated that are not married. A small minority of 10 individuals mentioned that they are divorced. In relation to the educational background of the participants, an important fact that must be taken into account is that all participants have at least completed higher education. The largest group has had 43 completed their Bachelor's degree. The second group was comprised of 35 participants that completed their Master's degree, while the third group consisted of 20 people that finished high school. Lastly, 15 people completed the highest level of education (PhD) in relevant sectors.

In relation to the occupation and profession of the group, there is significant diversity in the sample as is depicted in the following graph:

<u>Table 2: Occupation</u>	Catering	Tourism	Hospitality	Other
Sample	17	22	21	44

The table indicates that the among the three main sectors of Catering, Tourism and Hospitality, the most popular was the sector of tourism in which 22 participants were occupied. The next sector was followed by the hospitality industry with 21 participants, while the catering sector is third with 17 participants.

In relation with the experience demographics that sample, also has plenty of diversity as 97 out of the 113 have working experience, while the rest are newcomers in their respective industries.

2.2. Current situation analysis

2.2.1. Digital Skills

Students/Learners: Students generally rate their digital skills positively, particularly in using office applications (6.77) and secure information processing (5.51). They show moderate confidence in digital privacy and ethics (6.5) artificial intelligence applications (5.76), and creating websites and applications (5.03). However, they feel less proficient in digital marketing systems (4.77), digital business analysis (4.70), and using robots (2.62).

Teachers/Trainers: The sample of the teachers illustrates great interest as high scores are registered in the fields of applications skills such as email (6.89), in safety regarding information processing (5.46) and in digital privacy and ethics (5.42). Moderate confidence and knowledge are presented the categories of the decision making process when the latter is based on digital data (5.14) and in the usage of artificial intelligence tools (4.39). Lastly, low digital skills are evident in the utilization of robots (2.6) and in the creation and programming of websites and applications (3.17)

Professionals: Professionals demonstrate strong skills in office applications (6.64) and secure information processing (5.98). They show moderate confidence in digital privacy and ethics (5.94) and digital marketing systems (5.57). However, their proficiency in digital business analysis (4.88), using robots (2.29), and artificial intelligence applications (2.78) is lower. Their skills in creating websites and applications (3.35) and using digital technologies for visitor experiences (4.05) are also moderate.

2.2.2. Green Skills

Students/Learners: Students show moderate knowledge of green skills. They rate their ability to use resources effectively at (5.33) and understand environmental laws and regulations at (5.70). Their knowledge of promoting sustainable practices is rated at (4.62) and using technology for green

transition (4.37). They feel less confident in integrating environmental criteria into purchasing processes (3.74), green marketing and product development (3.92).

Teachers/Trainers: Interviewees show moderate to good green skills, with scores generally between 4 and 7. They have a good understanding of resource efficiency (5.44) and in the understanding of sustainable practices, laws and regulations (5.51). However, there are gaps in areas like CO2 management (3.82) and green procurement (3.65). This suggests a foundational green knowledge is present, but further training is needed for advanced environmental management. The overall score is satisfying but there is huge potential for further improvement.

Professionals: Professionals demonstrate a solid understanding of green skills. They rate their ability to use resources effectively at (5.82) and promote sustainable practices at (5.36). Their understanding of environmental laws and regulations is (6.01), and they feel moderately confident in integrating environmental criteria into purchasing processes (4.30) and green marketing and product development (4.63). Their use of technology for green transition is rated at (4.53).

2.2.3. Social and Cultural Skills

Students/Learners: Students exhibit moderate to strong social and cultural skills. They feel relatively confident in communication and interaction with diverse cultural and social backgrounds (6.77) and in supporting diversity, equality, and inclusiveness (7.14). Their Conflict resolution skills are rated at (6.70), while analytical thinking (6.76) and critical thinking (7.11) are strong areas. Students also show good learning orientation (6.66) and foreign language proficiency (6.37).

Teachers/Trainers: Teachers showcase high skills in the domains of interpersonal communication by scoring high in the domain of customer service receiving a high score (6.25) and communicating and interacting with different people from different cultural and societal backgrounds (6.78). Moreover, teachers score high in the field of critical thinking (7.07) as well as in analytical thinking (6.96) and in the knowledge of foreign languages (6.96).

Professionals: Professionals show strong social and cultural skills across various areas. They rate their customer service skills at (6.81) and communication with diverse groups at (6.67). They also have a solid understanding of supporting diversity, equality, and inclusiveness (6.64). Professionals demonstrate strong analytical thinking (6.92) and critical thinking (7). They have a good orientation towards learning (7.01) and foreign language proficiency (6.4).

2.3. Future needs analysis

2.3.1. Digital Skills

Students/Learners: Students exhibit moderate confidence in future digital skills. They feel relatively competent in secure information processing (6.69) and the use of office applications (7.03). Their skills in using digital marketing systems (6.23), digital privacy and ethics (6.5), and artificial intelligence applications (6.04) are moderate. They feel less confident in using robots (4.80) and in creating and programming websites (5.03). Their proficiency in using digital technologies for creating visitor experiences is rated at (5.3).

Teachers/Trainers: The digital skills among the Interviewees are strong overall, with average scores ranging from 4.22 to 8. The majority of interviewers show high proficiency in safe processing of information (6.82), office applications (7.18), and digital marketing systems (6.03). Advanced digital skills, such as AI applications (6.03) and web programming (5.03), show more variability, indicating that while basic digital literacy is solid, there is a need for improvement in specialized areas.

Professionals: Professionals show a balanced range of future digital skills. They rate their secure information processing (6.85) and use of office applications (7.16) highly. Their skills in digital

marketing systems (6.72) and digital privacy and ethics (6.81) are also regarded as high. Professionals feel moderately confident in using artificial intelligence applications (5.11). However, their skills in using robots (4.52) and creating and programming websites (5.24) are lower. Their proficiency in using digital technologies for creating visitor experiences is rated at (5.83).

2.3.2. Green Skills

Students/Learners: Students exhibit moderate proficiency in future green skills. They feel fairly competent in the acknowledgment of green regulations (5.7) while lacking the skills to measure and process waste (4.22). Their skills in measuring and processing carbon dioxide emissions are considered moderate (3.59). However, they feel less confident in integrating environmental criteria into purchasing processes (3.74), green marketing and product development (3.92), and using technology to accelerate the green transition (4.37).

Teachers/Trainers: Teachers display a good understanding of green skills, with average scores between 6 and 7.6. Resource efficiency (6.42), sustainable practices (6.35), and knowledge of environmental laws (6.57) are particularly strong. However, areas such as CO2 management (6.11) and green procurement (6) show a wider range of proficiency, suggesting that while foundational green knowledge is robust, specific technical skills require further development.

Professionals: Professionals show a balanced proficiency in future green skills. They feel competent in using resources effectively (6.94) and understanding environmental laws and regulations (7). Their skills in promoting sustainable practices (6.92) and integrating environmental criteria into purchasing processes (6.62) are solid. Professionals feel moderately confident in green marketing and product development (6.71) and using technology for accelerating the green transition (6.61).

2.3.3. Social and Cultural Skills

Students/Learners: Students exhibit strong future social and cultural skills. They rate their customer service skills at 5.96 and communication with diverse cultural and social backgrounds at (6.77). Their ability to support diversity, equality, and inclusiveness is high, with a rating of (7.14). They also score well in analytical thinking (6.76) and critical thinking (7.65). Their learning orientation is rated at (6.66), and their proficiency in foreign languages is (6.37).

Teachers/Trainers: The social and cultural skills of the Interviewees are consistently high. They excel in customer service (7.32), cultural interaction (7.07), and adaptability (7.32) (Skills such as conflict resolution (7.25), teamwork, and effective communication are also very strong (7.28). These results indicate that the interviewers are well-equipped to handle social and cultural challenges, demonstrating strong interpersonal skills and the ability to work effectively in diverse environments.

Professionals: Professionals show strong future social and cultural skills. They rate their customer service skills at (7.49) and their ability to communicate with diverse groups at (7.5). Their ability to support diversity, equality, and inclusiveness is high, with a rating of (7.46). Professionals also demonstrate strong analytical thinking (7.54) and critical thinking (7.55). Their learning orientation is rated at (7.41), and their proficiency in foreign languages is (7.03).

3. Focus Group Analysis

Context

Participants	Sectoral, educational, entrepreneurial.
Data Collection Period	June 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	Physical focus groups
Total Samples Collected	2 of sectoral 10 of educational 3 of entrepreneurial

3.1. Digital skills

Educational:

- a) **Students/Learners:** Students participated in the focus group revealed valuable insights, particularly from a modern and forward-thinking perspective. From their view, digital skills are crucial because they enable innovative and efficient ways to engage with customers, enhance their experiences, and maintain competitiveness in a rapidly evolving digital landscape. Key digital skills identified include proficiency in digital marketing to promote destinations and services online, social media management for customer engagement and brand loyalty. Additionally, they highlighted the growing importance of virtual and augmented reality skills to create immersive experiences, and knowledge of AI and chatbots for providing instant customer support. Certification needs are also evolving, with a strong demand for recognized credentials in these digital competencies to ensure employees have up-to-date knowledge and best practices.
- b) **Teachers/Trainers:** They emphasized the necessity of specific tools that address distinct needs. They stressed the importance of tools to support digital marketing strategies, such as Google Analytics for tracking website traffic as well as CRM systems for seamless customer interactions. The necessity of trained personnel in data analysis tools like Tableau and Microsoft Power BI, were also deemed crucial for understanding customer preferences and improve service offerings. The issue of cybersecurity was underscored with the need for tools like Norton to protect customer data. Additionally, they noted a strong demand for certifications in these platforms and emphasized the necessity for continuous learning and professional development.

Entrepreneurial: They generally agreed with the trainers' suggestions and emphasized the importance of specific tools to address various operational and strategic needs. They also add the management of tools like canvas in order to build a visual identity of the enterprise. Additionally, they reported that

efficient management of reservation and booking systems has proven highly beneficial for time management and overall operational efficiency.

They believe that a well-trained staff is crucial and plan to pursue training and certifications for themselves while also investing in seminars to enhance their team's skills. However, they find it challenging to find staff already familiar with overall with all these competencies.

Sectorial: They highlighted that, in their experience, digital skills such as managing POS systems, using reservation applications, and maintaining an up-to-date digital infrastructure are extremely useful. They observed that the demand for digital skills is continually increasing, making it more challenging to keep pace with industry standards. They believe that obtaining certifications in these digital competencies is crucial for their future career growth and inclusion in the evolving restaurant and hospitality sector.

3.2. Green skills

Educational:

- a) **Students/Learners:** They believe that green skills are crucial for enhancing the sector's reputation, attracting eco-conscious customers, and complying with environmental regulations. The most needed green skills, according to the students, include knowledge of waste reduction techniques, and the ability to implement energy-saving practices. They stressed the growing demand for certifications in green practices, such as those offered environmental management programs, to ensure employees are well-versed in eco-friendly practices.
- b) **Teachers/Trainers:** Teachers in the focus group underscored the importance of integrating green skills into the curriculum for tourism and hospitality management. They noted that essential green skills nowadays include understanding sustainable development goals, implementing green technologies, and promoting environmental awareness among staff and guests in hospitality sector. They highlighted that green skills are vital for reducing the sector's environmental footprint, enhancing operational efficiency, and meeting regulatory requirements and modern EU environmental practices. The most needed green skills include training in sustainable waste management, energy-efficient building practices, and knowledge of green certification standards.

Entrepreneurial: Entrepreneurs in the focus group emphasized the strategic value of green skills in driving business growth and enhancing brand reputation. They highlighted that essential skills for employees include knowledge of sustainable business practices, the ability to implement eco-friendly technologies (exploitation of solar power, green buildings, paperless documentation), and expertise in green marketing. They believe that green skills are critical for attracting environmentally conscious customers, reducing operational costs, and transmitting a more friendly and social profile for their business. The most needed green according to entrepreneurs include proficiency in sustainable supply chain management, energy management systems, and compliance with environmental standards. They stressed the importance of certifications such as EU Ecolabel Certification, which validate the business's commitment to sustainability, enhance its competitive edge in the market and offer a sense of environmental secure to their customers.

Sectorial: Workers in the focus group pointed out that practical green skills are becoming increasingly important in their day-to-day operations. They identified essential skills such as the ability to manage waste effectively, promote energy conservation, and adopt sustainable practices in food and beverage service. They noted that green skills are crucial for enhancing customer satisfaction and complying with environmental regulations. The most needed green skills for employees include training in recycling programs, sustainable food sourcing, and the use of energy-efficient equipment (solar panels,

LED lighting etc). Additionally, they highlighted the value of certifications from local environmental organizations (WWF Greece offers certifications for sustainable tourism) to demonstrate commitment to sustainability and improve career prospects.

3.3. Social and cultural skills

Educational:

- a) **Students/Learners:** For students in the focus group the most important social skills in this sector are effective communication and adaptability. They emphasized that social and cultural skills are crucial for providing excellent customer service, enhancing guest experiences, and fostering inclusivity. The most needed social and cultural skills according to students include multilingualism, understanding and respecting the cultural sensitivities.
- b) **Teachers/Trainers:** Teachers identified essential skills for employees, including empathy, cultural intelligence (understand, respect, and adapt to cultural differences which facilitates cross-cultural communication), and conflict resolution. They repeated that social and cultural skills are vital for creating inclusive environments, improving customer satisfaction, and enhancing team dynamics. In the end, they highlighted the importance of certifications in hospitality and cultural training, such as those from recognized hospitality schools like the Institute of Hospitality and cultural competence workshops offered by local tourism boards, to enhance their professional development and service quality in the sector

Entrepreneurial: Entrepreneurs in the focus group emphasized the strategic value of social and cultural skills in enhancing business integrity, creating a secure atmosphere for customer and customer loyalty. They identified the most essential skills is networking for establishing and growing the business. Entrepreneurs believe that social and cultural skills are critical for attracting and retaining customers, improving brand image. The most needed social and cultural skills for employees include proficiency in handling multicultural clientele, understanding global market trends, and promoting inclusive practices or diverse hiring practices. They stressed the importance of certifications in cultural competence and leadership training, to ensure that those working in the sector can effectively navigate and excel in diverse and dynamic environments.

Sectorial: Workers in the focus group highlighted the practical importance of social and cultural skills in their daily interactions with customers and colleagues. They identified essential skills for employees, such as patience, and active listening. Workers noted that social and cultural skills are crucial for building rapport with guests, handling diverse customer needs, and fostering a positive work environment. The most needed social and cultural skills for employees, according to the workers, include training in customer service excellence and teamwork often among intercultural groups.

4. References

1. Achmad, F., Prambudia, Y., & Rumanti, A. A. (2023). Improving tourism industry performance through support system facilities and stakeholders: The role of environmental dynamism. *Sustainability*, 15(4), 4103. <https://doi.org/10.3390/su15054103>
2. Adeyinka-Ojo, S., Lee, S., Abdullah, S. K., & Teo, J. (2020). Hospitality and tourism education in an emerging digital economy. *Worldwide Hospitality & Tourism Themes*, 12(2), 113–125. <https://doi.org/10.1108/WHATT-12-2019-0075>
3. Alt, R. (2021). Digital transformation in the restaurant industry: current developments and implications. *Journal of Smart Tourism*, 1(1), 69–74. <https://doi.org/10.52255/smarttourism.2021.1.1.9>
4. Amoiradis, C., Velissariou, E., & Stankova, M. (2021). Tourism as a socio-cultural phenomenon: a critical analysis, *Journal of Social and Political Sciences*, 4(2), 10–21. <https://doi.org/10.31014/aior.1991.04.02.271>
5. Antontio, C., & Rita, P. (2021). COVID 19: The catalyst for digital transformation in the hospitality industry? *Tourism and Management Studies*, 17(2), 41–46. <https://doi.org/10.18089/tms.2021.170204>
6. Baum, T. (2008). The social construction of skills: A hospitality sector perspective. *European Journal of Vocational Training*, 44(2), 74–88. Retrieved from <https://www.cedefop.europa.eu/en/publications-and-resources/publications/ejvt-44-20082>
7. Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism Management*, 29(4), 609–623. <https://doi.org/10.1016/j.tourman.2008.01.005>
8. Carlisle, S., Ivanov, S., & Dijkmans, C. (2023). The digital skills divide: evidence from the European tourism industry. *Journal of Tourism Futures*, 9(2), 240–266. <https://doi.org/10.1108/JTF-07-2020-0114>
9. Cochran, C., Goulbourne, E., Hunt, C., & Veza, A. (2018). Restaurant food waste action guide 2018. *Rethink Food Waste Through Economics and Data (ReFED)*.
10. Dujmovic, M., & Vitasovic, A. (2022). Importance of social interaction and intercultural communication in tourism. *Sustainable Tourism*, 256, 77–83. <https://doi.org/10.2495/ST220071>
11. Eurostat (2020). *Employment in tourism industries in the EU*, available at: <https://ec.europa.eu/eurostat>
12. Garcia, R.M.R. and Ruiz, J.A.C. (2020), “Professional training in tourism for the fourth industrial revolution”, in Cardoso Espinosa, E.O. (Ed.) *Management Training Programs in Higher Education for the Fourth Industrial Revolution: Emerging Research and Opportunities*, IGI Global, pp. 62–78.
13. Jang, Y.J., Kim, W.G., & Bonn, M.A. (2011). Generation Y Consumers’ Selection Attributes and Behavioral Intentions Concerning Green Restaurants. *International Journal of Hospitality Management*, 30, 803–811. <https://doi.org/10.1016/j.ijhm.2010.12.012>
14. Herath, R. B., Tham, J., Khatibi, A., & Azam, S. M. F. (2023). Implementation of green and sustainable practices by hotel managers in the Western province of Sri Lanka, *Journal of Law and Sustainable Development*, 11(11), 1–34. <https://doi.org/10.55908/sdgs.v11i11.1753>

15. Hernández-Garrido, R., Orts-Cardador, J., & Pérez-Calañas, C. (2023). The role of management in sustainable tourism: A bibliometric analysis approach. *Sustainability*, 15(12), 9712. <https://doi.org/10.3390/su15129712>
16. Im, U. L. (2011). Literature Review on Turnover - To Better Understand the Situation in Macau. *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 1149. <http://dx.doi.org/10.34917/2523523>
17. INSETE. (2023). Sustainability in the Greek tourism market: Paving the way for sustainable tourism growth. Deloitte Central Mediterranean. Retrieved from https://insete.gr/wp-content/uploads/2023/07/INSETE_Sustainability_Report.pdf
18. Kamis, A., Alwi, A., & Yunus, F. A. (2017). Integration of green skills in sustainable development in technical and vocational education. *International Journal of Engineering Research and Applications*, 7, 2248-962208. <https://doi.org/10.9790/9622-0712030812>
19. Kasim, A., & Ismail, A. (2012). Environmentally friendly practices among restaurants: Drivers and barriers to change. *Journal of Sustainable Tourism*, 20(4), 551–570. <https://doi.org/10.1080/09669582.2011.621540>
20. Kusa, R., Suder, M. & Duda, J. (2023). Impact of greening on performance in the hospitality industry: moderating effect of flexibility and inter-organizational cooperation. *Technological Forecasting and Social Change*, 190, 122423. <https://doi.org/10.1016/j.techfore.2023.122423>
21. Martin-Martin, D., Garcia, J. M. Romero, I. (2022). Determinants of digital transformation in the restaurant industry. *Amfiteatru Economic Journal*, 24(60),430-446, <https://doi.org/10.24818/EA/2022/60/430>
22. Martinez-Fernandez, C., Ranieri, A., & Sharpe, S. (2013). *Greener Skills and Jobs for a Low-Carbon Future*. OECD Green Growth Papers. Paris: OECD Publishing.
23. Menegaki, A. N., Agiomirgianakis, G. M., & Arvanitaki, E. (2021). The tourism sector in Greece: A sociological perspective and review. *Tourismos: An International Multidisciplinary Journal of Tourism*, 14(1), 67-95. Retrieved from <https://www.cedefop.europa.eu/en/publications-and-resources/publications/ejvt-44-20082>
24. Ministry of Tourism of Greece. (2021). Report on the digital skills of the tourism workforce in Greece: Crucial issues and policy responses. General Directorate for Tourism Policy, Directorate for Research, Department for Research Studies and Documentation.
25. Misso, R., Andreopoulou, Z., Cesaretti, G. P., Hanna, S. S., & Tzoulis, I. (2018). Sustainable development and green tourism: New practices for excellence in the digital era. *Journal of International Business and Entrepreneurship Development*, 11(1), 65-74.
26. Morozov, M. & Morozova, N. (2019). Innovative staff training strategies for the tourism and hospitality industry. *Advances in Economic, Business and Management Research*, 110, 393-396. <https://doi.org/10.2991/aebmr.k.191225.069>
27. Mu, W., Spaargaren, G., & Lansink, A. O. (2019). Mobile apps for green food practices and the role for consumers: A case study on dining out practices with Chinese and Dutch young consumers. *Sustainability (Switzerland)*, 11(5), 1–19. <https://doi.org/10.3390/su11051275>
28. Nissen, R., Simonsen, D., & Vejlgård, H. (2024, June 6). Social skills required for exercising the role of host: a qualitative study. *2_Vejlgård_et_al_EuroChrie20_Difference-between-service-and-hosting_final.docx.pdf* (eviden.dk)
29. Oktadiana, H. & Djauhar, R., H. (2011). The importance of understanding cultural awareness for managers in the hospitality industry (in Indonesia). *Binus Business Review*, 2(1), 230-243. <https://doi.org/10.21512/bbr.v2i1.1131>

30. Saseanu, A. S., Ghita, S. I., Albastroiu, I., & Stoian, C.-A. (2020). Aspects of digitalization and related impact on green tourism in European countries. *Information*, 11(11), 507. <https://doi.org/10.3390/info11110507>
31. Trafialek, J., Czarniecka-Skubina, E., Kulaitienė, J., & Vaitkevičienė, N. (2019). Restaurant's multidimensional evaluation concerning food quality, service, and sustainable practices: A cross-national case study of Poland and Lithuania. *Sustainability*, 12(1), 234. <https://doi.org/10.3390/su12010234>
32. Tziora, N., Giovanis, N., & Papacharalabous, C. (2016). The role of foreign languages in hospitality management. *International Journal of Language Translation and Intercultural Communication*, 4(1), 89-97. <https://doi.org/10.12681/ijltic.10353>
33. van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2010). Measuring internet skills. *International Journal of Human-Computer Interaction*, 26(10), 891–916. <https://doi.org/10.1080/10447318.2010.496338>
34. Vona, F., Marin, G., Consoli, D., & Popp, D. (2018). Environmental regulation and green skills: an empirical exploration. *Journal of the Association of Environmental and Resource Economists*, 5(4), 713 –753. <https://doi.org/10.1086/698859>

Annex D - Country Report of Italy



**GreenHost – Vocational Excellence, Police and Enterprise
United for Hospitality Management Skills adapted on
Environmental Footprint Methods**

**WP2/A1: Current situation and needs analysis of target
groups**

Country: Italy



**Co-funded by
the European Union**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project n° 10144003-GreenHost-ERASMUS-EDU-2023-PEX-COVE

Contents

1. Theoretical Background	2
1.1. Digital Skills	2
1.2. Green Skills	3
1.3. Social and Cultural Skills	3
2. Survey Analysis	4
2.1. Sociodemographic characterisation	4
2.2. Current situation analysis	4
2.2.1. Digital Skills	4
2.2.2. Green Skills	5
2.2.3. Social and Cultural Skills	5
2.3. Future needs analysis	5
2.3.1. Digital Skills	5
2.3.2. Green Skills	6
2.3.3. Social and Cultural Skills	6
3. Focus Group Analysis	7
3.1. Digital skills	7
3.2. Green skills	8
3.3. Social and cultural skills	9
4. Conclusions	11
5. References	11

1. Theoretical Background

The tourism sector in Italy has undergone significant transformation in recent years. Given tourism's crucial role in the Italian economy, it is a focal point of the National Recovery and Resilience Plan (PNRR), particularly in Mission 1, which emphasizes digitization, competitiveness, culture, and tourism. This mission allocates €2.4 billion towards enhancing cultural and tourism heritage through digitalization, including initiatives like a digital tourism hub and funds to boost business competitiveness.

Additionally, the tourism industry is increasingly focusing on data management and cybersecurity, alongside the growing adoption of contactless solutions like mobile payments and virtual assistants. Sustainability has also become a key aspect of tourism in Italy and an asset for competitiveness, leading to the development of new professions centered on sustainable tourism. The Tourism Strategic Plan 2023/27, developed by the Ministry of Tourism, emphasizes the digitization of services, retraining of human capital, and catering to tourists interested in authentic and exclusive experiences.

Literature identifies 3 pillars of sustainability - social, environmental and economic - which need to be developed equally to reach a holistic approach to sustainable tourism. While the environmental dimension is acquired in both practices and legislation, the social pillar is less developed, related to aspects such as social inclusion, gender equality, workers with migrant backgrounds, as well as the relationship between tourists and local communities/residents.

Social and cultural skills play a vital role in the Italian tourism sector, fostering positive interactions between locals and visitors while preserving cultural heritage. Multilingual tourism professionals and the integration of modern technology, such as virtual and augmented reality, enhance the tourist experience by offering deeper engagement with Italy's rich cultural context.

1.1. Digital Skills

The changes that have affected this sector in recent years are numerous⁷. Digitalization, with the advent of eCommerce, reservations online and online reviews, has substantially changed the way Tourism is done. Precisely because of the importance of Tourism to the Italian economy, the sector is at the center of a major reform plan within the National Recovery and Resilience Plan (so-called PNRR). In particular, Mission 1 of the plan is dedicated to "Digitization, competitiveness, culture and tourism" and provides for the allocation of 2.4 billion euros in favour of a strategy to support and revitalize Tourism based on the enhancement of cultural and tourism heritage and digitization⁸. Among the interventions planned for the five-year period 2021-2026 are the creation of a digital tourism hub and a series of integrated funds to boost business competitiveness⁹.

Just as in other industries, data valorisation is becoming central in tourism and the cultural sector in order to collect, manage and use data strategically. Cybersecurity and data protection solutions are also emerging in this area, which are now indispensable for any business. Contactless solutions are

⁷ <https://www.italiadomani.gov.it/en/il-piano/missioni-pnrr/digitalizzazione-e-innovazione.html>

⁸ <https://www.italiadomani.gov.it/en/strumenti/documenti/archivio-documenti/national-recovery-and-resilience-plan.html>

⁹ <https://www.italiadomani.gov.it/en/news/il-polo-digitale-che-collega-il-mondo-del-turismo.html>

also growing, for example: payment options from mobile (Apple Pay, Google Pay) or remote (Pay-by-link), home automation devices, virtual assistants or self check-in systems.

1.2. Green Skills

In recent years, sustainable tourism has gained importance in Italy. Increasing attention to land conservation and the environment has led, in particular, to a great emphasis on sustainable tourism. A cultural shift that has led to the emergence of new tourism-related professions, each with a unique and significant role in ensuring a travel experience that is not only comfortable and unique, but also ethically sound.

Precisely for these reasons, the same Tourism Strategic Plan 2023/27¹⁰ elaborated last year by the Ministry of Tourism insists, among others, on the implementation of the digitization process of both internal and external services to strengthen a digital tourism (Innovation pillar), on the retraining and training of human capital engaged in the tourism sector (Training pillar), on the expansion of the demand served, intercepting both new segments interested in a more authentic and sustainable way of enjoying destinations, and tourists seeking exclusivity, declined in multiple tourism formulas (Sustainability pillar).

1.3. Social and Cultural Skills

In Italy, the application of social and cultural skills in tourism is vital for fostering positive interactions between locals and visitors, preserving the country's rich cultural heritage and traditions, and enhancing the overall tourist experience. Moreover, the Italian culture of hospitality is widely recognized, with Italians often displaying a warm and welcoming attitude towards tourists, enhancing their overall travel experience.

Tourism professionals, including guides and hotel staff, are often multilingual, proficient in languages such as English, French, German, and Spanish. This capability bridges communication gaps, facilitating smoother interactions with tourists¹¹. In addition, the tourism sector places a strong emphasis on preserving cultural landmarks, traditions, and art. Guides and institutions educate visitors on the significance of respecting historical sites and local customs, which is essential for maintaining cultural integrity¹².

Lately, museums and historical sites are incorporating virtual and augmented reality to provide immersive experiences¹³ and apps and online platforms are increasingly being used to offer tourists cultural insights, language tips, and historical context. Such an integration of modern technology helps tourists engage more deeply with the cultural context and understand the significance of what they are experiencing.

¹⁰ <https://www.simtur.it/download/piano-strategico-del-turismo-2023-27/#>

¹¹ "Multilingualism in Italy's Tourism Sector," *Language and Intercultural Communication*, 2021

¹² "Cultural Heritage and Tourism: A Strategic Partnership," *Tourism Review*, 2023

¹³ "Virtual Reality and Cultural Tourism in Italy," *Heritage Science*, 2021

2. Survey Analysis

Context

Population	Students, professionals, and teacher.
Data Collection Period	June/July 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	both online and physical survey
Total Samples Collected	26 of students 31 of professionals 25 of teachers

6.1. Sociodemographic characterisation

1. Demographic Information

- Age Range: The respondents are divided into six age groups: 18-24, 25-34, 35-44, 45-54, 55-64, and 65+. The largest group is the 18-24-year-olds, followed by those aged 55-64.
- Gender: The survey has more female respondents (52) compared to male respondents (30).

2. Tourism Sector Activity

The dataset includes a question specifically for those working in the tourism sector. The sector activity is categorized as follows:

- Hospitality (Ricettività): 18 respondents are engaged in hospitality services.
- Catering (Ristorazione): 10 respondents work in the food service industry.
- Tour Operating/Travel Agencies (Tour operating / Agenzie di viaggio): 10 respondents are involved in travel agency or tour operating.

The sample includes a diverse age range, with a significant portion of young adults (18-24 years) and older adults (55-64 years).

The gender distribution is skewed towards female respondents.

2.1. Current situation analysis

2.1.1. Digital Skills

Regarding current digital skills applied to tourism, the target group claiming to be most qualified is **teachers**, with an average score of 5.2 out of 8. For this group - on average - the competencies on

which more expertise is present are Use of office applications; Secure information processing; Digital privacy and ethics; Use of digital marketing systems and communications platforms; Digital business analysis, business intelligence, data-driven decision making; while the competency for which the score is lowest (below 4) concerns the Use of robots.

The other two target groups - tourism operators and students - present an average of 4.5 and 4.2 points out of 8 on their current digital skills, respectively.

For the first group - **tourism operators** - the skills on which more expertise is present are Secure information processing; Use of office applications; Use of digital marketing systems and communications platforms; Digital privacy and ethics; Digital business analysis, business intelligence, data-driven decision making; and Use of digital technologies to create guest experiences while the competencies for which the score is lowest (below 4) concern Use of robots; Use of generative AI applications; Web & app development & programming.

For the second group - **students** - the competencies on which more expertise is present are Secure information processing; Use of office applications; Use of digital marketing systems and communications platforms; Digital privacy and ethics; and Use of generative AI applications; while the competencies for which the score is lowest (below 4) concern Digital business analysis, business intelligence, data-driven decision making; Use of robots; Use of digital technologies to create guest experiences; and Web & app development & programming.

2.1.2. Green Skills

In green skills, the average distribution with respect to the 3 target groups also follows the same order as for digital skills: the most competent group is teachers (5.5/8), followed by tourism operators (4.9/8) and students (4.5/8).

For the **teachers'** group, the self-assessment of green skills always achieves a good score, between 4.7 and 6.3 on average. More basic scores are recorded for **tourism operators** (between 4.1 and 5.6) and **students** (between 3.3 and 5.8). It seems interesting to note that for the 3 target groups, one of the areas on which lower scores are recorded concerns the Adoption of environmental certifications and management systems.

2.1.3. Social and Cultural Skills

Overall, the 3 target groups have higher scores on average for social and cultural competencies: teachers and tourism operators have scores of 6.4 and 6.8 out of 8, respectively, while the student group has slightly lower scores (5.9/8). In any case, for none of the 13 social and cultural competencies do the 3 groups score lower than 4/8 on average. The competency with lowest scores on average is Communicating effectively with guests in their native language (5.8/8 for tourism operators; 5/0 for students; 5.8/8 for teachers).

2.2. Future needs analysis

2.2.1. Digital Skills

Regarding future digital skills, the average for **teachers** is slightly higher (5.9/8) than for **students** and **tourism operators** (both groups with 5.3/8). For all 3 groups, the lowest value is averaged for the competency related to the Use of robots. In contrast, the competencies registering higher values are the same for teachers and tourism operators (Secure information processing and Use of office

applications) while for students are Use of office applications and Use of digital marketing systems and communications platforms.

2.2.2. Green Skills

As regards future skills in the green field, the average for teachers is slightly higher (6.2/8) than that of students (5.5/8) and tourism operators (5.7/8).

The lowest values are recorded on average for the group of **teachers** for the competence relating to Green marketing and product development, for the group of **tourism operators** for the competence relating to the Adoption of environmental certifications and management systems and for the group of **students** for the competence relating to the Use of technology to speed up the green transition

The skills that instead record higher values (at least 6/8) are for teachers: Efficient use of resources (e.g. energy, water, materials); Promotion and encouragement of sustainable practices among guests; Understanding of environmental laws and regulations; Communication about the organization's efforts towards a green economy; Measurement and management of Waste and Measurement and management of CO2 emissions; for tourism operators they are

Efficient use of resources (e.g. energy, water, materials); Promotion and encouragement of sustainable practices among guests and Communication about the organization's efforts towards a green economy; for students they are Efficient use of resources (e.g. energy, water, materials) and Understanding of environmental laws and regulations.

2.2.3. Social and Cultural Skills

As regards future skills in the social and cultural field, the average for teachers is slightly higher (6.8/8) than that of tourism operators (6.7/8). On average, students recorded a value of 6.3 out of 8.

Overall, the values on average are higher than those relating to the other 2 areas of competence: for the group of teachers no value on average is lower than 6/8, for the group of tourism operators no value on average is lower than 6,2/8, while for the student group no average value is lower than 5.9/8.

3. Focus Group Analysis

Context

Participants	Sectoral, educational, entrepreneurial
Data Collection Period	July 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education and entrepreneurship.
Data Collection Method	2 physical focus groups (02/07/2024, 04/07/2024)
Total Samples Collected	8 of sectoral 4 of educational 6 of entrepreneurial

3.1. Digital skills

When dealing with digitalisation and digital skills, the fundamental premise is to consider the **generational phase**: situations, particularly when they pertain to the use of digital technology, are experienced differently between generations (an example is the self check-in phase upon arrival at a hotel).

Sectoral

Continuous effort is necessary to identify new skills that **simplify procedures and enable continuous learning**, as digital skills cannot be considered stable and already learned (as an example, consider the evolution of domotics). Digital skills also require constant **innovation**, for example to meet **security standards** in the IT sector. It's vital to pay attention to the use of technology in the execution of tasks: in some instances, the complexity of the work in the tourism sector prevents **standardisation**, and it's important to acknowledge the significance of **human interaction** when welcoming and raising awareness of guests and visitors. **Digital skills in creating websites and using platforms**, as well as online booking tools, can facilitate the accessibility of isolated locations or off traditional tourist circuits (e.g. inland areas), but constant attention must be paid to homogenisation, which may result from an excessive simplification, and to depersonalisation. The tourism sector requires digital tools that are specific and not borrowed from other industries or mechanisms.

Competences in **digital communication tools as videos and podcasts**: these resources are nowadays valuable and effective tools for touristic promotion, for companies, public administrations and sectoral

actors, as they allow to tell and get to know stories around a territory via channels that are used also for leisure activities and, therefore, attractive for the public. Some of the most useful digital competences identified as essential are: **guests registration** and **accounting management tools**.

Another aspect emerged focused on the **use of digital skills to ensure accessibility for people with different types of disabilities**, taking into account digital accessibility and online communication. When creating websites and digital platforms, easy navigation and accessible languages are necessary for the full usability of the territory by people with different types of disabilities.

Educational

Competences in **social media management** are nowadays fundamental to communicate activities and values of a facility or touristic offer to a vast public. Training courses should have a specific focus on the **language used to convey information** (accessibility of contents, quality of information for all kinds of public, targeting and taking into consideration special needs) and how to **build the online presence** of a sectoral operator or company, maximising the outreach while maintaining a human contact with users and customers.

Entrepreneurial

For entrepreneurial actors, digitalization is a valid tool both externally and internally, as it allows the optimization of workflows (less waste of time and resources) and the creation of a path of generation of well-being of employees and their possible consequent greater involvement.

Digital skills in the use of **platforms, e-commerce and management programmes** are essential for the visibility and development of businesses. **Digital and offline marketing** and **communication** became essential to convey what the added value of a touristic offer, service or profession is, to communicate the uniqueness of the experience and offer. Digital competences, nowadays, must also concern sectors such as **IT security and personal data protection** and processing according to GDPR.

3.2. Green skills

Sectoral actors

Green skills represent an area for development, as well as opportunities for savings for the structure (e.g. in terms of energy) and opportunities for the attractiveness of tourism experiences within visitors and guests. In order to identify the skills needed to implement environmental sustainability measures, it is first of all essential to be aware of the facility in which one operates (strengths, weaknesses, constraints related to the architectural structure, location and context, function, ...), in order to apply feasible green measures and alternatives.

In Reggio Emilia, there is still a need to develop skills on **sustainable mobility** (for example, by exploiting small railways), untying tourism from car use.

In the field of the organisation of cultural events, it is essential to develop skills and knowledge on the **compensation of events** (e.g. exhibitions) through collaboration with partners also outside the tourism sector (e.g. collaboration with the Apennine National Park): compensation has to do not only with visitor awareness and travel options, but also with aspects such as the impact of artwork's transports (consisting often in road transport).

Awareness-raising of users and customers on sustainable behaviour: the management team needs to adopt sustainable behaviour in the running of the facility, and then be able to transfer this behaviour to the customers.

In the creation of services and tourist packages for the territory, it is necessary to be able to **create relationships with local green operators** in order to create sustainable supply chains. This includes knowledge of the territory, the operators and their activities, but also a **knowledge of existing certifications and requirements for the certification path**.

Educational

Training actors involved in focus groups have stressed the importance of raising awareness not only of children and young people during educational activities, but also of the training of educators and teachers. Responsible practices and promotional activities represent a way of caring for the territory, also through the **development of small practices** that allow operators, companies and citizens to take care of what is around us. That is why a different approach is required: not just training on competences and tools, but an **approach to valuing what surrounds us**, focusing on getting students passionate about the sector in order for them to continue their career path and inspire other young people and possible colleagues.

Entrepreneurial

Entrepreneurs confirm that we are living a **phase of evolution** in the world of tourism towards green practices, as it is always more frequently recognised as an added value by guests and travellers. Anyway, they also remarked that green practices are **challenging** for staff members to implement, especially when it comes to young staff members. Entrepreneurial actors underlined the necessity to make customers feel that they are part of the actions taken to promote sustainability.

Certifications are a useful tool to start evaluations and reflections on the means of transports, energy and resources employed. The certification paths raise awareness and improve quality and work processes. Certifications need to cover the entire supply chain and are recognizable to both operators in the sector, and to customers and users of facilities and services. This allows a collaboration between operators of the sector aimed at creating packages and tourist offers completely sustainable and with low environmental impact. The information provided on the certifications must be useful and essential, and proof of compliance with the standards is required in the exercise of the activities.

The opinions gathered on certifications in the focus groups were divergent: from the point of view of hotel chains in Reggio Emilia, especially when it comes to hotel and reception facilities, certifications are mostly imposed by the hotel chain, but they are not rewarding the structure and they also have low influence in the choice of a facility. Other actors stated that environmental certifications are not compulsory for the tourism sector, but they can represent an advantage in procurement tenders or for tax reductions. Tour operators especially emphasized the added value of labels and certifications as incentives for specific kinds of responsible travels and travellers.

An example of recognisable certification is the **CETS - European Charter for Sustainable Tourism** (with 3 levels), which requires different sectoral professionals to comply with standards and guidelines. It is a participatory governance method to promote sustainable tourism and structure the activities of protected areas in the field of tourism, compatible with the needs of biodiversity protection.

3.3. Social and cultural skills

A fundamental cross-cutting competence for all subjects and sectors involved in the focus groups is the **ability to cooperate**, also through the construction and further development of local, national and international networks. Cooperation also means **networking skills** to generate value with different actors, from the non-profit as well as the business world. This allows the optimal use of time and resources, as well as the sharing of costs.

Sectoral

It is necessary for sectoral actors to be able to **adapt to the available resources, make connections** and **find opportunities to work with actors active on the territory**.

In order to make certain tourism-related professions sustainable over time, particularly tourism with a close connection to the environment (e.g. the figure of nature and walking guides, “Guide ambientali escursionistiche - GAE”), it is necessary to combine the main activity with related activities, such as youth work and environmental education.

The discussion between actors in the field revealed the lack of specific qualification courses in Italy for certain professions (e.g. tourist guides), causing a shortage of professional figures compared to the demand in the country and the lack of new concepts for the promotion of the territory.

It is therefore necessary to provide a **continuous training**, offered by different kinds of actors (not only public ones, but also associations for example), to acquire new skills on emerging aspects of the territory. The contribution of operators in the sector active in the accessibility of tourism has allowed to focus further professional skills for tourism operators, skills that can respond to the needs of customers with special needs in the field of tourism. Through training, it is required to build a new culture for people with special needs (motor disabilities, sensory, psychic difficulties), reversing the disability paradigm. A work on the competences of tourism operators and environmental education operators is required on the themes of accessibility and disability.

Educational

Activities, including training ones, need to increase the awareness of youngsters and adults on what tourism is, beyond the purely entertainment component. Educational activities and touristic offers must convey **responsibility** for the territory and environment.

Industry professionals and entrepreneurs reported the problem of finding personnel. From the comparison with local high schools that have specialised courses in the tourism sector, a low percentage of students expressed a desire to continue their career in the tourism, hotel or restaurant sector after their studies. Problems are identified in **how training is delivered** and before that in how to **orient** young people in choosing a school and career path, setting up the right expectations. The school system is required to **build pathways** that can engage young people and give them skills to identify opportunities that their environment and territory can provide for future employment.

In professional training offers, teachers and educators need to shift their perspective, involving students in the construction and development of their own training activities, starting from their needs and desires.

Entrepreneurial

For companies in the sector, it is essential to take into account the component of **responsibility, as an element of attractiveness** of a company, regardless of their size.

Networking is nowadays a fundamental skill in which to train and invest, especially if the touristic offer becomes a way of restoring the socio-economic fabric of a territory, making it visible and promoting it for its uniqueness (e.g. the Valle dei Cavalieri Community Cooperative). Networking cannot only be based on the voluntary action of operators, but must be a strengthened and qualified skill. Operators indicate the **need for qualified people** who can follow the development of sustainable tourism paths, and external figures specialized in the sector to follow and support the promotion and development of a project.

**

Needed certifications concern primarily gender equality, safety and security and other dimensions not strictly linked with tourism. The Italian school system includes and provides for both technical and professional courses linked to tourism, the same can be said for the world of vocational training for adults. There are diplomas and professional qualifications linked to the world of tourism, but on the one hand these courses struggle to keep up with the new requirements of the tourism world, and on

the other hand the young people who attend these courses are not always motivated to work in this field once they have finished their studies.

4. Conclusions

Tourism is a complex subject. On one hand it is an individual cultural practice, linked to pleasure, leisure, and the desire to get to know the world. On the other, it is a true modern industry, although tourism is not a sector in its own right but cuts across other sectors. The tourism experience occurs through interaction between people. The availability of staff with specific skills and capabilities for each type of tourism product and experience is crucial. Managers and operators in the tourism sector must therefore be able to adapt to new technological requirements and possess adequate language skills, as well as the flexibility to meet the ever-changing needs of customers. In order to maximize the long-term potential of tourism and to better meet the needs of the tourism industry, it is crucial that Italy develops and improves its tourism education and training offer. At the moment, education and training provision in Italy is lacking in both quality and quantity. Although university courses dedicated to tourism have increased rapidly in recent years, the number of students has decreased. The demand for skills from higher education is also very weak; furthermore, courses are not sufficiently market-oriented and tourism enterprises play an active role in defining course content. It seems necessary to increase the transfer of knowledge from the education sector to businesses and to develop an integrated approach, actively involving regions, the private sector and education and training institutions.

A specific focus should be carried out on the topic of accessible tourism, with a business-oriented perspective instead of a social assistance one, as people with disabilities are tourists, guests and customers with their own specific demands, like any other customer. In recent years, attention to the issue of accessible tourism, or tourism for all, has grown considerably and its value has been recognised not only in terms of economic benefits for different countries, but also as a tool for social inclusion for people with disabilities and special needs. However, despite the progress made in this field and the multiplication of increasingly accessible tourism initiatives and products, there are still many difficulties that people with special needs encounter when traveling and holidaying, and just as many people who say they are unable to travel for tourism due to their physical and health conditions. Crucial in this regard will be to provide training opportunities on professional skills to meet these specific needs, including working on the parameters that define the quality of tourism offerings and creating a new culture that overturns the disability paradigm. As the topic evolves, we increasingly speak in this sense of environmental well-being rather than tourism accessibility, as the definition includes not only the services offered, but also the relationships created in the experience.

5. References

Please list the references according to the APA style 7th edition (<https://apastyle.apa.org/style-grammar-guidelines/references/>).

- Italia Domani. (n.d.). Digitalization and innovation. <https://www.italiadomani.gov.it/en/il-piano/missioni-pnrr/digitalizzazione-e-innovazione.html>
- Italia Domani. (n.d.). National Recovery and Resilience Plan. <https://www.italiadomani.gov.it/en/strumenti/documenti/archivio-documenti/national-recovery-and-resilience-plan.html>
- Italia Domani. (n.d.). *The digital hub that connects the world of tourism*. <https://www.italiadomani.gov.it/en/news/il-polo-digitale-che-collega-il-mondo-del-turismo.html>

- SIMTUR. (n.d.). *Piano strategico del turismo 2023-27*.
<https://www.simtur.it/download/piano-strategico-del-turismo-2023-27/#>
- *Multilingualism in Italy's tourism sector*. (2021). *Language and Intercultural Communication*.
- *Cultural heritage and tourism: A strategic partnership*. (2023). *Tourism Review*.
- *Virtual reality and cultural tourism in Italy*. (2021). *Heritage Science*.

Annex E - Country Report of Portugal



GreenHost – Vocational Excellence, Police and Enterprise

United for Hospitality Management Skills adapted on

Environmental Footprint Methods

WP2/A1: Current situation and needs analysis of target

groups

Country: Portugal



**Co-funded by
the European Union**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

Contents

1. Theoretical Background	v
1.1. Digital Skills	4
1.2. Green Skills.....	6
1.3. Social and Cultural Skills.....	8
2. Survey Analysis	10
2.1. Sociodemographic characterisation	10
2.2. Current situation analysis	18
2.2.1. Digital Skills.....	18
2.2.2. Green Skills.....	19
2.2.3. Social and Cultural Skills.....	20
2.3. Future needs analysis.....	21
2.3.1. Digital Skills.....	21
2.3.2. Green Skills.....	22
2.3.3. Social and Cultural Skills.....	23
3. Focus Group Analysis.....	25
3.1. Digital skills.....	25
3.2. Green skills.....	26
3.3. Social and cultural skills	28
4. Conclusions.....	30
5. References.....	32

1. Theoretical Background

A balance between environmental sustainability and economic growth it is crucial to create a more resilient and sustainable world, and this can be accomplished through learning skills that promote green technologies and behaviours. In the light of the fast digital transition, it is crucial to create skills that support social inclusion as well as environmental sustainability. Concerning this prompt digital transformation, lifelong learning is essential, not only regarding digital skills, but also green, social and cultural skills that provide wellbeing and a sustainable future. To build the green skills needed for new industries and jobs, as well as to adapt to new technology, people need ongoing education and training. Not only promotes social inclusion, but also reduces digital disparities, as all the people have access to digital opportunities and education. It is mandatory a comprehensive strategy to expertise development that not only promotes social inclusion and environmental sustainability, but also give people the opportunities and challenges of the digital age.

1.1. Digital Skills

Digital talents include a wide range of technological competencies related to computer hardware, digital devices, software and applications. All the digital tools are used by industries and employees can benefit from knowing how to use them to communicate, manage, and analyse crucial data, as firms continue to leverage digital technology to fulfil essential job operations. To Livingstone, Mascheroni & Stoilova (2021) digital skills are increasingly essential for people to thrive in the modern world and acquiring these skills can lead to improved educational performance, better job prospects, and enhanced social connectivity. Nosratabadi, Atobishi and Hegedus (2023) defend that to achieve these goals, governments should focus on policies for promoting digital literacy, social safety nets, and ensure equitable access to digital technologies. To Gilli, Lettner & Guettel (2023) digital skills are increasingly for leaders to navigate the complexities of modern organizations and to leverage technology for innovation and efficiency. Considering the economy and the region's growth to Santoalha, Consoli & Castellacci (2021) areas with higher levels of digital skills are better positioned to diversify into green industries as digital competencies facilitate innovation, adaptation and the development of green sectors, which are crucial for the economic and environmental transformation, moving the region toward a more sustainable industry. Nosratabadi, Atobishi and Hegedus (2023) emphasizes that digitalization affects social sustainability, including aspects such as employment, social inclusion, and inequality. Digitalization creates new job opportunities in tech-related fields, but it also leads to job displacement in traditional sectors, contributing to social challenges and social inequalities, with disadvantaged groups being more likely to be excluded from the benefits of digital transformation. To Gilli, Lettner & Guettel (2023) it is fundamental the continuous learning and development as digital technologies evolve, leaders must remain lifelong learners, continually updating their digital skills while also refining their leadership qualities to meet new challenges. According to Santoalha, Consoli & Castellacci (2021) digital skills and relatedness are key drivers of green diversification in European regions. By enhancing digital competencies and fostering industrial connections, regions can better position themselves for a sustainable and prosperous future. In summary, while digital transformation offers significant opportunities for social progress, it also poses challenges to social sustainability. Addressing these challenges requires targeted policies and strategies to promote digital inclusion and equity.

1.2. Green Skills

Vona, Marin, Consoli & Popp (2015) define green skills as those necessary to adapt and to contribute to environmental sustainability, such as skills related to energy efficiency, pollution reduction, and resource conservation. The demand for green skills is rising, particularly in sectors directly affected by environmental regulations and sustainability initiatives. It is crucial to address skill gaps to ensure that workers can thrive in a green economy, with policies and training programs that equip the workforce with the necessary green competencies. This aspect is defended by Auktor, (2020) that claims that *“the need to transition towards more environmentally sustainable modes of production and consumption has become an imperative both for developed as well as for developing countries.”* (pp. 9). To Auktor (2020) it is necessary concerted efforts from governments, industries, and educational institutions to create training programs that meet the demands of a green economy. Effective policy frameworks, public-private partnerships, and international cooperation are essential to ensuring that all are prepared for the challenges and opportunities of a sustainable industrial future. To Vona, Marin, Consoli & Popp (2015) to develop green skills, is necessary to include the alignment of training programs with industry needs, and the provision of lifelong learning opportunities to keep pace with technological advancements. According to the Global Green Skills Report (2022) there is a growing demand for green skills across multiple industries as businesses and governments strive to meet sustainability targets. According to this report, the demand for green skills is reshaping the job market, leading to the creation of new roles and the transformation of existing ones. The Global Green Skills Report (2022) underscores the critical role of green skills in the global transition toward a sustainable economy and the importance of education, policy support, and industry collaboration to ensure that the workforce is equipped to meet the needs of a greener world. In summary, the demand for green skills is rising, considering the transition toward a greater environmental sustainability, and the education, the policy support, and the industry collaboration is fundamental to ensure that the human resources meet the needs of a greener world.

1.3. Social and Cultural Skills

The abilities or skills required for social interaction are known as social competencies. To fit in with a group, to find a job and live in harmony with others, we should possess social competencies such as efficient communication, sensitive language, and empathy. Therefore, behaviours that allow connections and engagement with other people are referred as social skills. It also entails adapting to social norms, which vary based on the setting and culture. In a world of constant change and accelerated digital transformation it is necessary to acquire a wide range of talents. Employees need success in both personal and professional spheres, and they must have the capacity to develop and apply their abilities. Both hard and soft skills must be developed and maintained for them to succeed, as employers look for the perfect match. According to Herrity (2019) everyday interactions with others involve the application of social skills for verbal, nonverbal, written, and visual communication. Humans use social skills whenever they engage in interpersonal interaction, that allows them to establish and preserve fruitful relationships both personally and professionally with the aid of strong social skills. To Tankovic, Kapeš, & Benazić (2022) professional knowledge is essential for work efficiency, but technical skills has become scarce to meet the duties of today's business environment. Employers are no longer concerned in individuals who have only specific hard skills but also soft skills, referring to interpersonal skills, dealing with people and attitudes, which enhance business

efficiency and interpersonal relations. In their study Aghion, Bergeaud, Blundell & Griffith (2024) concluded that special for employees with lower formal qualifications there is an important role for skills such as teamwork and effective communication that contributes to individual wage growth, which shows the importance of soft skills in professional success. In summary, social competences are acquired throughout development and are fundamental for adapting to different contexts and situations throughout life, and well-developed competences allow you to adapt correctly to professional and personal life.

2. Survey Analysis

Context

Population	Students, professionals, and teachers.
Data Collection Period	May - June 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	Online survey
Total Samples Collected	85 of students 32 of professionals 33 of teachers

2.1. Sociodemographic characterisation

Our sample had 150 participants, 101 (67%) and 49 male (33%). Most of our participants were between 18-24 years (n=83, 55%), 29 participants were between 45-54, and 24 participants were between 25-34 years old. Most of our participants had higher education (n=103, 69%): 61 had undergraduate courses, 31 had master's, and 10 had PhD. Regarding their professional status, 85 students, 32 professionals, and 33 trainers. More than 80% (n=119) had professional experience. The average of their professional experience is 12,35 years. When analyzing their activity sector, 81 (54%) were from the hospitality sector, 34 (23%) were from the tourism sector, and 16 (11%) were from the restaurant sector. Nineteen participants were from other activity sectors such as education, management, and psychology.

2.2. Current situation analysis

2.2.1. Digital Skills

Students: According to our participants the digital skills that they had, on average, more developed were "Use of office applications" (5,51), "Secure information processing" (4,65), and "Use of digital marketing systems and communications platforms" (4,66). On the other hand, the skills that they considered less developed were "Use of robots" (3,25), and "Web & app development & programming" (3,52).

Trainers: Our participants considered having more developed the following skills "Use of office applications" (6,22), "Secure information processing" (5,25), and "Digital privacy and ethics" (4,97). As

less developed digital skills were “Use of robots” (3,41), “Web & app development & programming” (3,44), and “Use of generative AI applications” (4,0).

Professionals: Our participants considered to have more developed the digital skills “Use of office applications” (5,61), “Secure information processing” (5,18), and “Digital privacy and ethics” (4,85). On the other hand, the less developed digital skills were “Use of robots” (2,82), and “Web & app development & programming” (2,42).

2.2.2. Green Skills

Students: According to our participants the green skills that they had more developed were “Efficient use of resources (e.g. energy, water, materials)” (6,09), “Promotion and encouragement of sustainable practices among guests” (5,84), and “Communication about the organization’s efforts towards a green economy” (5,41). On the opposite, the green skills that were considered less developed were “Measurement and management of CO2 emissions” (4,12), and “Green procurement and greening the supply chains” (4,16),

Trainers: Our participants considered to have more developed the green skills “Efficient use of resources (e.g. energy, water, materials)” (5,79), “Promotion and encouragement of sustainable practices among guests” (5,53), and “Communication about the organization’s efforts towards a green economy” (5,07). On the other hand, the less developed skills are “Measurement and management of CO2 emissions” (4,09), “Green procurement and greening the supply chains” (4,09), and “Adoption of environmental certifications and management systems” (4,47).

Professionals: According to our participants the most developed green skills were “Efficient use of resources (e.g. energy, water, materials)” (5,58), “Promotion and encouragement of sustainable practices among guests” (5,33), and “Communication about the organization’s efforts towards a green economy” (4,58). On the other hand, the less developed green skills were “Green procurement and greening the supply chains” (2,70), and “Measurement and management of CO2 emissions” (2,94).

2.2.3. Social and Cultural Skills

Students: According to our participants all the social and digital skills were highly developed with a mean average higher than six for all the skills. Additionally, the skills more developed were “Support diversity, equality and inclusivity” (7,09), and “Provide excellent customer service” (7,06). On the other hand, the less developed social and cultural skills were “Foreign languages” (6,09), “Analytical skills” (6,47), and “Resolve conflicts” (6,53).

Trainers: According to our participants all the social and cultural skills were highly developed with a mean average higher than six for all the skills. Moreover, the most developed social and cultural skills are “Learning-oriented” (6,82), “Support diversity, equality and inclusivity” (6,76), and “Communicate effectively with guests in their native language” (6,71), and “Work effectively in a team” (6,71).

Professionals: Our participants considered to have all the social and cultural skills developed at an advanced level. More specifically, the most developed skills were “Support diversity, equality and inclusivity” (6,64), “Critical thinking” (6,48), and “Learning-oriented” (6,45).

2.3. Future needs analysis

2.3.1. Digital Skills

Students: According to our participants all the digital skills will need an advanced level of proficiency in the future. Therefore, they consider more important to have in the future are “Use of office applications” (6,75), “Digital privacy and ethics” (6,25), and “Digital business analysis, business intelligence, data-driven decision making” (6,25). On the other hand, the digital skills considered by the students less important in the future are “Use of robots” (5,31), “Web & app development & programming” (5,69), and “Use of generative AI applications” (5,72).

Trainers: Our participants consider that all the digital skills will be needed, at least, an advanced level of proficiency in the future. Moreover, the most valued skills are “Digital privacy and ethics” (6,15), “Use of office applications” (6,03), and “Use of digital marketing systems and communications platforms” (6,0).

Professionals: Our participants consider that all the digital skills will be needed, at least, an advanced level of proficiency in the future. The most valued will be “Use of office applications” (6,24), “Secure information processing” (6,18), and “Digital privacy and ethics” (6,09).

2.3.2. Green Skills

Students: According to our participants the green skills more valued in the future are “Efficient use of resources (e.g. energy, water, materials)” (6,75), “Promotion and encouragement of sustainable practices among guests” (6,59), and “Communication about the organization’s efforts towards a green economy” (6,41). On the other hand, the less valued green skills in the future are “Measurement and management of CO2 emissions” (5,88), “Green procurement and greening the supply chains” (5,88), and “Adoption of environmental certifications and management systems” (5,88).

Trainers: Our participants considered that, in the future, all the green skills will be needed, at least, at an advanced level of proficiency. More specifically, the most valued skill will be “Efficient use of resources (e.g. energy, water, materials)” (6,32), “Promotion and encouragement of sustainable practices among guests” (6,32), and “Use of technology to speed up the green transition” (6,26).

Professionals: Our participants considered that, in the future, all the green skills will be needed, at least, at an advanced level of proficiency. The most valued will be “Promotion and encouragement of sustainable practices among guests” (6,55), “Efficient use of resources (e.g. energy, water, materials)” (6,39), and “Communication about the organization’s efforts towards a green economy” (6,21).

2.3.3. Social and Cultural Skills

Students: According to our participants all the social and cultural skills will be very important in the future with a mean higher than seven. Additionally, the more valued skills are “Provide excellent customer service” (7,56), “Support diversity, equality and inclusivity” (7,53).

Trainers: Our participants considered that all the social and cultural skills will be needed at a Highly specialized level in the future. The more valued skills will be “Learning-oriented” (7,26), “Support diversity, equality and inclusivity” (7,18), “Work effectively in a team” (7,18), and “Critical thinking” (7,18).

Professionals: Our participants considered that all the social and cultural skills will be needed at a Highly specialized level in the future. More specifically, the most valued skills will be “Communicate effectively with guests and colleagues” (7,24), “Learning-oriented” (7,21), and “Adaptability to change and handle unexpected situations” (7,21).

3. Focus Group Analysis

Context

Participants	Sectoral, educational, entrepreneurial.
Data Collection Period	June 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	Physical focus group
Total Samples Collected	3 of sectoral 4 of educational 2 of entrepreneurial

The focus group began with a reflection on the importance of competencies for sustainability, in its environmental, economic and social aspects, for the tourism, hotel and restaurant sector. The participants were unanimous in recognizing its importance, even more than that, being an imperative area to implement for the subsistence of the sector, with 4 categories being essentially highlighted: (1) **sense of belonging**: the sense of belonging is related with the company's connection to the community, from knowing its suppliers, all its products and resources, namely endogenous and seasonal ones, the history and culture of the region, including the processes and customs of the community. Essentially, the company naturally includes and integrates itself into the community in which it is based; (2) **business imperative**: in the sense of an imperative for the business to become attractive within the market in which it operates, as well as being forced to implement sustainability strategies, especially environmental ones, due to pressure from competitors, the business's financial backers and customers; (3) **re-educate**: the need to re-educate people and society about the function of each resource at their disposal and its proper use, particularly food, and thus promote its conscious and proper use, taking advantage of its full potential; (4) **challenge**: implementing sustainable practices in any business is a major challenge because, although it is imperative for the business to improve its quality and positioning in the market, it requires the commitment and involvement of the companies' human resources, customers, suppliers and society in general. This commitment and involvement are fundamental on a day-to-day basis, in the actions carried out, in the willingness to learn and acquire new skills and ways of doing things that can enhance sustainable practices.

In the subsections below, we are going to present the categories that arise from the discussion related with digital, green and social and cultural skills.

3.1. Digital skills

The digital skills identified can be grouped into 8 categories:

- (1) Use of productivity tools, such as spreadsheets, word processors, email, etc.
- (2) Use of digital communication tools, such as the web, social networks and cell phones, knowing how to make the most of their potential.
- (3) Using tools for searching, selecting, organizing and managing information, such as web search engines and specific information management and dissemination software
- (4) Use and implement collaborative platforms that foster teamwork and knowledge sharing, and the management of processes and tasks.
- (5) Use interactive digital technologies, such as host manuals and task execution procedures that promote the sharing of knowledge and experiences.
- (6) Digital security, namely recognizing the importance of computer systems security, data security and the application and use of GDPR standards and guidelines, as well as in terms of cybersecurity, adopting preventive behaviors when using the internet that do not expose business systems to external attacks.
- (7) Use and implement gamification tools: for example, with a system of achievements that can promote the commitment of teams to more environmentally friendly behaviors, and likewise be able to use these tools to encourage these same behaviors in customers.
- (8) Learn about artificial intelligence technologies, particularly their potential for business, as well as the boundaries of their use.

3.2. Green skills

The green skills identified by participants are the following:

- (1) Analyzing business processes, i.e. knowing the beginning, middle and end of the process to analyze and decide on the best, most sustainable and environmentally friendly way of using the products and resources involved in that process.
- (2) Applying innovation in business processes to optimize them, reducing time and effort in carrying out tasks, improving the quality of life of employees in the company, and the reuse of materials and resources.
- (3) Applying storytelling strategies to business process innovation, i.e. analyzing and understanding the history and motivation for using a resource to define and support new ways of using the same resource.
- (4) To know and use strategies to raise awareness and educate customers about the need for environmental sustainability, for example in individual water consumption and the use of towels.
- (5) To apply concepts of change management, since adopting new practices and ways of doing things involves changing ingrained habits, which, to be successful, requires the commitment and involvement of everyone involved, both employees and customers.
- (6) To know the main concepts and principles of environmental sustainability.
- (7) To apply critical thinking to analyze work processes and implement strategies to use products and resources more efficiently, making the most of their potential.

- (8) Master the concepts and practices of environmental sustainability in order to be able to define strategies and actions for their application in real business situations.
- (9) Know strategies and practices that promote the consumption of plastic and water, particularly when buying products in bulk and selecting suppliers that only use biodegradable packaging.
- (10) To know the legislation in the business area in order to be able to use sustainability strategies and practices that comply with the current legislation.
- (11) Apply collaboration and innovation strategies in production processes: promoting collaboration between companies to produce more sustainable resources, for example, producing napkins or towels with more attractive designs, dimensions and compositions that promote their reuse and life cycle, as well as reducing water consumption when washing them.

About the need for certification, the participants stated that they only arise regarding the environmental component, essentially because most companies see this component as a means of communicating with their customers. In this sense, it was also mentioned that they often feel it is already a requirement imposed by tour operators.

It should be noted that although the more marketing and customer communication role of environmental certification was highlighted, this component can also play an educational role and introduce good environmental practices in companies, especially those that have no experience in adopting this type of practices.

Finally, the financial investment involved in certification was also highlighted, without often translating into a return in terms of adopting effective and more sustainable practices.

3.3. Social and cultural skills

In terms of social and cultural competencies, everyone highlighted the need to be committed to the community where the business is based, from knowing its culture, history, habits and particularities, to the suppliers and producers in the region, as well as the products and resources it offers.

In this sense, it is necessary to think about processes from the perspective of the place and the community where the business operates. Carry out historical research into the products, resources, processes, habits and customs of the region, critically analyzing these elements to define how they can be integrated and enhance the business.

It is also essential to use communication and collaboration tools with the surrounding community, as well as among the company's employees.

In the same vein, it is important to have the patience, time and curiosity to welcome customers so that they also feel that they are an integral part of the community in which the business operates.

These issues highlight the need for a critical spirit and resilience on the part of employees, i.e. knowing how to think to know how to do, and thus know how to be.

The commitment and involvement of employees with the company's activities, as well as with the surrounding community, will promote collaboration, dialogue and the sharing of experiences, and thus teamwork to the detriment of individualism and competition, and a healthier company and community.

They also stressed the need for a culture and education for service, integrating business and community into a single element.

Finally, the integration of people with diversity and special needs was highlighted. People who assume that they have a disability show a greater level of humility, collaboration and curiosity, which can help to create a spirit of collaboration within the whole team.

4. Conclusions

Portugal aspires to be a place where people come to visit, to invest and to live. It is an open, welcoming, diverse, and original nation, with a growing global position as a tourist destination of excellence. But, for Portugal's tourism industry to achieve all its goals, it needs to improve and develop the main 3 skills-digital, green and social-cultural. Digital transition leads to the necessity of Human Resources to be endowed with digital capabilities and skills to keep up with this ever-changing market. On the other hand, these days, caring for the environment sustainability is not only fashionable, but also very essential for the survival of the world, the economy and the future generations. Given the shift toward increased environmental sustainability, there is a growing need for people with "green" talents. To complement this, social-cultural skills are fundamental to maintaining one of the characteristics that tourists praise so much – hospitality - and maintain fruitful relationships both personally and professionally. Social competences are crucial for adjusting to various circumstances and settings throughout life, and to achieve excellent services in tourism sector skills like responsibility, team spirit, empathy and adaptability are mandatory.

Regarding our quantitative diagnosis, we can conclude that students, professionals, and trainers value digital, green, and social and cultural skills. Referring to digital skills, all of them consider having a good level of proficiency in the skills “Use of office applications”, “Secure information processing”, and “Use of digital marketing systems and communications platforms”. The less developed skills are “Use of robots” and Web & app development & programming”. For the future, all of them consider it important to have a good level of proficiency in “Use of office applications” and “Digital privacy and ethics”. For the green skills, all of them consider having a good level of “Efficient use of resources (e.g. energy, water, materials)”, and “Promotion and encouragement of sustainable practices among guests”. In the future, all of them recognise the need to have “Efficient use of resources (e.g. energy, water, materials)”, and “Promotion and encouragement of sustainable practices among guests”. Regarding the social and cultural skills, all the participants consider having a good level of proficiency of these skills. In the future, the skills more valued will be “Support diversity, equality and inclusivity”, “Communicate effectively with guests and colleagues”, and “Learning-oriented”.

5. References

- Aghion, P., Bergeaud, A., Blundell, R. W., & Griffith, R. (2024). Social Skills and the Individual Wage Growth of Less Educated Workers. *Social Science Research Network*. <https://doi.org/10.2139/ssrn.4774931>
- Auktor, G. (2020). *Green Industrial Skills for a Sustainable Future*. https://www.unido.org/sites/default/files/files/2021-02/LKDForum-2020_Green-Skills-for-a-Sustainable-Future.pdf
- Eizenberg, E., & Jabareen, Y. (2017). Social Sustainability: a New Conceptual Framework. *Sustainability*, 9(1), 68. <https://doi.org/10.3390/su9010068>
- Gilli, K., Lettner, N., & Guettel, W. (2023). The future of leadership: new digital skills or old analog virtues? *Journal of Business Strategy*, 45(1). <https://doi.org/10.1108/jbs-06-2022-0093>
- Herrity, J. (2019, March 15). *Social skills: Definition and examples*. Indeed.com. <https://www.indeed.com/career-advice/career-development/social-skills>
- Lamri, J., & Lubart, T. (2023). Reconciling Hard Skills and Soft Skills in a Common Framework: The Generic Skills Component Approach. *Journal of Intelligence*, 11(6), 107–107. <https://doi.org/10.3390/jintelligence11060107>
- LinkedIn. (2022). *Global green skills report 2022*. <https://www.linkedin.com/reports/global-green-skills-report-2022/>
- Livingstone, S., Mascheroni, G., & Stoilova, M. (2021). The outcomes of gaining digital skills for young people's lives and wellbeing: A systematic evidence review. *New Media & Society*, 25(5), 146144482110431. <https://doi.org/10.1177/14614448211043189>
- Nosratabadi, S., Atobishi, T., & Hegedűs, S. (2023). Social Sustainability of Digital Transformation: Empirical Evidence from EU-27 Countries. *Administrative Sciences*, 13(5), 126. <https://doi.org/10.3390/admsci13050126>
- Santoalha, A., Consoli, D., & Castellacci, F. (2021). Digital skills, relatedness and green diversification: A study of European regions. *Research Policy*, 50(9), 104340. <https://doi.org/10.1016/j.respol.2021.104340>
- Tankovic, A. C., Kapeš, J., & Benazić, D. (2022). Measuring the importance of communication skills in tourism. *Economic Research-Ekonomska Istraživanja*, 36(1), 1–20. Tandfonline. <https://doi.org/10.1080/1331677x.2022.2077790>
- Vona, F., Marin, G., Consoli, D., & Popp, D. (2015). *Green Skills*. National Bureau of Economic Research. <http://www.nber.org/papers/w21116>

Annex F - Country Report of Slovenia



**GreenHost – Vocational Excellence, Police and Enterprise
United for Hospitality Management Skills adapted on
Environmental Footprint Methods**

**WP2/A1: Current situation and needs analysis of target
groups**

Country: Slovenia



**Co-funded by
the European Union**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project n° 10144003-GreenHost-ERASMUS-EDU-2023-PEX-COVE

Contents

1. Theoretical Background	3
1.1. Digital Skills	4
1.2. Green Skills.....	4
1.3. Social and Cultural Skills.....	5
2. Survey Analysis	6
2.1. Sociodemographic characterisation	6
2.2. Current situation analysis	7
2.2.1. Digital Skills.....	7
2.2.2. Green Skills.....	8
2.2.3. Social and Cultural Skills.....	9
2.3. Future needs analysis.....	10
2.3.1. Digital Skills.....	10
2.3.2. Green Skills.....	11
2.3.3. Social and Cultural Skills.....	12
3. Focus Group Analysis.....	13
3.1. Digital skills.....	14
3.2. Green skills.....	14
3.3. Social and cultural skills	128
4. Conclusion	130
5. References.....	132

1. Theoretical Background

Sustainable tourism, also known as **sustainable or responsible tourism**, is a form of travel that strives for the long-term preservation of nature, the protection of cultural heritage, promotion of economic development in local communities, and ensures positive experiences for both visitors and local residents. Similar to sustainable development, sustainable tourism is based on three aspects of development. Sustainable and gastronomic tourism are two important branches of tourism increasingly valued by both local residents and tourists worldwide. Sustainable and gastronomic tourism often interwine, as sustainable development also involves respecting local culinary traditions, promoting local food production, and using seasonal ingredients.

We focus on the concept of sustainable development, sustainable tourism, and gastronomic tourism, which are becoming increasingly important in the modern world. Sustainable development emphasizes the need for a balance between economic, social, and environmental aspects to meet the needs of current generations while caring for future generations.

We recognize the importance of educating young generations about the impact of their decisions on the environment and society, and we promote the development of their critical thinking and responsible behavior. Young people play a crucial role in shaping the future, so it is important for them to develop an understanding and awareness of sustainable practices from a young age and actively engage in their implementation.

The World Commission on Environment and Development precisely defined sustainable development as a manner of human development where resources use aims to meet human needs while preserving the environment, so that these needs can be met not only today but also for future generations. The report of the World Commission on Environment and Development (WCED) represents a document that laid the foundations for the contemporary understanding of sustainable development. It was led by Gro Harlem Brundtland, former Prime Minister of Norway. The report, officially titled "Our Common Future," was published in 1987 and remains one of the most influential documents on sustainable development (summarized by Sustainable Development Goals & Knowledge Platform, 2024).

Sustainable development is a comprehensive approach to progress that seeks to fulfill present needs without compromising the ability of future generations to meet their own needs. It encompasses economic, social, and environmental aspects and strives for a balance among these three pillars.

Economic aspect. This includes promoting economic growth and development while creating long-term prosperity. It involves promoting innovation, potential investments in infrastructure, and creating opportunities for decent work and entrepreneurship while ensuring efficient resource use.

Social aspect. Social sustainability focuses on promoting equality, social cohesion, and quality of life for all members of society. It addresses issues such as poverty, inequality, access to education and healthcare, and promotes cultural diversity and social inclusion.

Environmental Perspective. The environmental perspective emphasizes the conservation and responsible use of natural resources, as well as the minimization of pollution and waste. It includes protecting biodiversity, mitigating climate change, promoting the development of renewable energy sources, and adopting sustainable practices in agriculture, industry, and urban development.

Achieving sustainable development requires cooperation and coordination among governments, businesses, civil society, and individuals. It involves integrating sustainable aspects into decision-making processes across all sectors and at all levels of society (adapted by the United Nations Development Programme, 2024).

1.1. Digital Skills

The intersection of digital skills, sustainable development, and tourism is an exciting and critical area of focus. Digital skills can greatly enhance sustainable development and tourism, promoting more efficient, eco-friendly practices, and improving the overall experience for tourists while benefiting local communities and environments.

- **Data Analysis and Management:**
 - Collecting and analysing data on tourist behaviour can help manage visitor flow, reducing overcrowding and the associated environmental impact.
 - Data can be used to monitor the environmental impact of tourism activities and develop strategies to mitigate negative effects.
- **Digital Marketing:**
 - Promoting sustainable tourism options through social media and other online platforms can raise awareness and attract eco-conscious travellers.
 - Virtual tours and augmented reality experiences can offer tourists a preview, helping them make more informed and sustainable travel choices.
- **E-commerce and Online Booking Systems:**
 - Streamlining the booking process for eco-friendly accommodations and activities encourages sustainable travel choices.
 - Online platforms can also highlight the importance of sustainability in tourism and provide information on responsible travel practices.
- **Geographic Information Systems (GIS) and Mapping:**
 - GIS technology can be used to map and manage tourist destinations, ensuring that tourism development is well-planned and sustainable.
 - Interactive maps can guide tourists to sustainable attractions and services.

By integrating digital skills with sustainable development practices, the tourism industry can become more efficient, eco-friendly, and beneficial to both tourists and local communities. This holistic approach ensures that tourism contributes positively to the environment, economy, and society (by the Official Journal of the European Union, L394; pages 13-18).

1.2. Green Skills

Green skills are essential for advancing sustainable development and mitigating environmental challenges. By integrating these skills across various sectors, individuals and organizations can contribute to a more sustainable future. Education and training, industry collaboration, and supportive government policies are key to developing and promoting green skills effectively.

1.3. Social and Cultural Skills

Social and cultural skills are essential for fostering understanding, cooperation, and inclusivity in a variety of settings. By developing these skills, individuals and organizations can create more harmonious, effective, and culturally rich environments. Education, experiential learning, mentorship, and continuous self-improvement are key to enhancing these vital skills.

2. Survey Analysis

Context

Population	Students, professionals, and teachers
Data Collection Period	May, 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	online survey
Total Samples Collected	(45 of students) (32 of professionals) (38 of teachers)

2.1. Sociodemographic characterization

In Slovenia, **115** people were surveyed **online** for digital, green, and social/cultural skills, of which **45** students, **32** professionals and **38** teachers.

SURVEYED STUDENTS

64% of **surveyed students** were aged between 18 and 24 years, and 36% were between 25 to 34 years. 76% of students were females. Most of students – 62%, study in the field of tourism, whereas other 38% study for working in hospitality and restaurant business. 67% of students go to high school, other 33% are undergraduate students. All surveyed students are single, with no professional experience.

SURVEYED TEACHERS

61% of **surveyed teachers** are aged between 25 and 44 years, 39% of teachers are older than 45 years of age. 74% of teachers are female, 26% are male. A bit less than 80% of teachers teach in the sector of tourism, and around 20% of them in hospitality sector. 89% of teachers have Master's degree, 11% of teachers have finished PhDs. 79% of teachers are married, the others are single (13%) or divorced (8%). All of the teachers have professional experience, minimum 3, maximum 24 years; the average 11,5 years of professional experience.

SURVEYED ENTREPRENEURS

Most of the **surveyed entrepreneurs** (59%) are aged between 45 and 54 years of age, 19% are 35 to 44 years old, 16% are 55 to 64 years old and only 2 participants were 25 to 34 years old. Two thirds of them are female and one third is male. 56% of professionals work in restaurant sector of activity, 25% work in hospitality sector and 19% work in tourism business. 69% of them have undergraduate academic status and 31 % have finished Master's degree. It is interesting that 56% of professionals are still single, 31% are married and 13% are divorced. All of surveyed entrepreneurs have professional experience, from minimum 4 years, to maximum 32 years; the average 13 years of professional experience.

2.2. Current situation analysis

We surveyed all three groups (**students, teachers, professionals**) concerning the current situation of their digital skills, green skills and social /cultural skills. We placed the range of their knowledge in an eight-level scale (Basic Level 1; Basic Level 2; Intermediate Level 3; Intermediate Level 4; Advanced Level 5; Advanced Level 6; Highly Specialized Level 7; Highly Specialized Level 8).

2.2.1. Digital Skills

SURVEYED STUDENTS

Most of the **surveyed students** (71%) claim to have advanced and highly specialized level of secure information processing knowledge. Their knowledge of the use of office applications and digital marketing systems and communication platforms are divided equally, from basic to highly specialized level. Most of them have basic to advanced level of digital privacy and ethnics knowledge. 73% of students have advanced to highly specialized level of digital business analysis, business intelligence and data-driven decision making. Their knowledge of the use of robots is equally divided, from basic to highly specialized level. 60 % of students have basic to intermediate level of knowledge considering the use of digital technologies to create guest experiences. Only 40% of students claim to have advanced and highly specialized level of knowledge for the use of generative AI applications. The knowledge of web and app development & programming seems to be advanced to highly specialized - almost 64% of students claim to have it. All in all, the level of students' knowledge of current digital skills is intermediate to advanced.

SURVEYED TEACHERS

The knowledge of secure information processing and the use of office applications seems to be equally divided between the **surveyed teachers**, from basic to highly specialized level. Half of them have only basic to intermediate knowledge of the use of digital marketing systems and communication platforms. Their knowledge of digital privacy and ethnics, as well as digital business analysis, business intelligence and data-driven decision making is advanced to highly specialized. 79% of teachers only have basic to intermediate knowledge of the use of robots. Only about 26% of teachers have advanced to highly specialized knowledge of the use of digital technologies to create guest experiences and the use of generative AI applications. 84% of them have only basic to intermediate knowledge of web and app development & programming. Considering the analysis, the level of teachers' knowledge of current digital skills is intermediate.

SURVEYED ENTREPRENEURS

Most of the **surveyed entrepreneurs** (75%) have basic to intermediate knowledge of secure information processing, but advanced to highly specialized level of the use of office applications. The use of digital marketing systems and communication platforms is equally divided, from basic to highly specialized level. Approximately 81% of professionals have advanced to highly specialized level of digital privacy and ethnics' knowledge. 81% of them have only basic to intermediate level of knowledge considering digital business analysis, business intelligence and data-driven decision making, and also the use of robots. Their knowledge of the use of digital technologies to create guest experiences and the use of generative AI applications is mostly basic to intermediate. The knowledge of web and app development & programming is somehow equally divided, from basic to highly specialized level. All things considered, the level of current digital skills for entrepreneurs is mostly basic to intermediate.

2.2.2. Green Skills

SURVEYED STUDENTS

The knowledge of efficient use of resources and of promotion and encouragement of sustainable practices among guests is equally distributed among the **surveyed students**, from basic to highly specialized level. It is interesting that around 56% of them have very poor to medium knowledge of understanding the environmental laws and regulations. Their knowledge of communication about the organization's efforts towards the green economy, measurement and management of waste, as well as measurement and management of CO2 emissions is somehow equally divided, from basic to highly specialized level. 60% of students have only basic to intermediate knowledge considering adoption of environmental certifications and management systems. Most of them also have basic to intermediate knowledge about green procurement and greening the supply chains, green marketing and product development, as well as the use of green technology to speed up the green transition.

SURVEYED TEACHERS

Interestingly, most of the **surveyed teachers** have only basic to advanced knowledge of green skills. Considering advanced to highly specialized level of knowledge, only 26% of teachers know well about the efficient use of resources, 29% of them about promotion and encouragement of sustainable practices among guests, and about 24 % of them about understanding the environmental laws and regulations, as well as communication about the organization's efforts towards the green economy. Most of them have only basic to intermediate knowledge of measurement and management of waste (79%), measurement and management of CO2 emissions (84%), adoption of environmental certifications and management systems (82%), green procurement and greening the supply chains (82%), as well as green marketing and product development (82%). Only 24% of teachers have advanced to highly specialized knowledge considering the use of green technology to speed up the green transition.

SURVEYED ENTREPRENEURS

The level of current entrepreneurs' knowledge about green skills is intermediate. Most of the **surveyed entrepreneurs** have intermediate to advanced level of knowledge about the efficient use of resources and promotion and encouragement of sustainable practices among guests. 53% of them have only basic to intermediate knowledge of understanding the environmental laws and regulations. Their knowledge of communication about the organization's efforts towards the green economy (63%) and

measurement and management of waste (81%) is quite high. On the other hand, their knowledge about the measurement and management of CO2 emissions is mostly basic to intermediate (69%). 69% of professionals have advanced to highly specialized knowledge of adoption of environmental certifications and management systems. About 38% of them have high knowledge about green procurement and greening the supply chains. However, about 38 % of them have basic to intermediate knowledge of green marketing and product development and more than 53% about the use of green technology to speed up the green transition.

2.2.3. Social and Cultural Skills

SURVEYED STUDENTS

58% of **surveyed students** have basic to intermediate knowledge about providing excellent customer service. Mostly, they also have basic to intermediate knowledge regarding communication and interaction with people from different cultural and social backgrounds (62%), in supporting diversity, equality and inclusivity (60%), and in communicating effectively with guests and colleagues (60%). Their knowledge about adaptability to change and handle unexpected situations is equally divided. In communicating effectively with guests in their native language (62%) and in resolving conflicts (58%) their knowledge is mainly basic to intermediate. Students' knowledge of understanding the cultural setting of their own destination and sharing this information with guests is equally distributed. They have basic to intermediate knowledge of working effectively in a team (58%), in analytical skills (60%), in critical thinking (60%), and in learning-oriented work (58%). Interestingly, students think that their knowledge of foreign languages is mostly advanced to highly specialized (56%).

SURVEYED TEACHERS

Most **surveyed teachers** have basic to intermediate level of knowledge for mainly all social and cultural skills: providing excellent customer service (79%), communication and interaction with people from different cultural and social backgrounds (82%), supporting diversity, equality and inclusivity (79%), communicating effectively with guests and colleagues (82%), adaptability to change and handle unexpected situations (63%), communicating effectively with guests in their native language (76%), resolve conflicts (79%), understand the cultural setting of their own destination and share this information with guests (61%), work effectively in a team (74%), use analytical skills (71%), use critical thinking (68%), and learning-oriented work (84%). Their knowledge of foreign languages is mainly on low intermediate to advanced level (84%).

SURVEYED ENTREPRENEURS

Surveyed entrepreneurs have basic to intermediate knowledge in providing excellent customer service (94%) and in supporting diversity, equality and inclusivity (91%). They claim to have advanced to highly specialized knowledge in communicating and interacting with people from different cultural and social backgrounds (94%), as well as in communicating effectively with guests and colleagues (75%), in adaptability to change and handle unexpected situations (81%), in communicating effectively with guests in their native language (69%), and in learning-oriented work (75%). They have basic to intermediate knowledge in resolving conflicts (53%), understanding the cultural setting of their own destination and sharing this information with guests (69%), working effectively in a team (69%), using analytical skills (81%), using critical thinking (75%), and surprisingly, in their knowledge of foreign languages (75%).

2.3. Future needs analysis

We surveyed all three groups (students, teachers, professionals) concerning the future needs of their digital skills, green skills and social /cultural skills. We again placed the range of their knowledge in an eight-level scale (Basic Level 1; Basic Level 2; Intermediate Level 3; Intermediate Level 4; Advanced Level 5; Advanced Level 6; Highly Specialized Level 7; Highly Specialized Level 8).

2.3.1. Digital Skills

SURVEYED STUDENTS

The results of the **surveyed students** considering their digital skills in the future are somehow equally distributed. Their answers about future knowledge considering secure information processing knowledge, the use of office applications and digital marketing systems and communication platforms, digital privacy and ethics, use of robots, and the use of digital technologies to create guest experiences are divided equally, from basic to highly specialized level. Many students think they only need basic to advanced level of knowledge in digital business analysis, business intelligence and data-driven decision making (58%), as well as in the use of generative AI applications (58%), and in web and app development & programming (60%).

SURVEYED TEACHERS

Many **surveyed teachers** think that their future knowledge of secure information processing (79%), the use of digital marketing systems and communication platforms (74%), digital business analysis, business intelligence and data-driven decision making (82%), the use of robots (84%), the use of digital technologies to create guest experiences (87%), and the use of generative AI applications (84%) needs only basic to intermediate level of knowledge. They think they need the knowledge of the use of office applications on intermediate to advanced level (76%). Many teachers think their knowledge of digital privacy and ethics should be on advanced to highly specialized level (74%). 61% of teachers think they need only basic to intermediate level of knowledge regarding web and app development & programming, whereas 34% of them think they would need highly advanced level of that knowledge.

SURVEYED ENTREPRENEURS

Many **surveyed entrepreneurs** think that in the future they would need only basic to intermediate knowledge of secure information processing (75%), digital business analysis, business intelligence and data-driven decision making (81%), the use of robots (81%), the use of digital technologies to create guest experiences (69%), the use of generative AI applications 56(%), and the knowledge of web and app development & programming (56%). They think they will need more advanced to highly specialized level of knowledge for office applications (75%), the use of digital marketing systems and communication platforms (56%), as well as the use of digital privacy and ethnics (81%).

2.3.2. Green Skills

SURVEYED STUDENTS

In general, the **surveyed students** think that in the future their green skills' knowledge will be equally divided on all levels, from basic to highly specialized level, considering the efficient use of resources, the promotion and encouragement of sustainable practices among guests, understanding the environmental laws and regulations, communication about the organization's efforts towards the green economy, measurement and management of CO2 emissions, the adoption of environmental certifications and management systems, green procurement and greening the supply chains, and the use of green technology to speed up the green transition. However, they think that in the future they will only need basic to intermediate level of knowledge for measurement and management of waste (60%), as well as for green marketing and product development (58%).

SURVEYED TEACHERS

Interestingly, many of the **surveyed teachers** think that in the future they will need a lot of green skills on advanced to highly specialized level of knowledge, such as the efficient use of resources (84%), the promotion and encouragement of sustainable practices among guests (66%), communication about the organization's efforts towards the green economy (87%), measurement and management of waste (84%), measurement and management of CO2 emissions (84%), adoption of environmental certifications and management systems (76%), green procurement and greening the supply chains (87%), as well as green marketing and product development (84%). On the other hand, 84% of teachers think they will need basic to intermediate knowledge considering the understanding of environmental laws and regulations, and 66% of them for the use of technology to speed up the green transition.

SURVEYED ENTREPRENEURS

Many of the **surveyed entrepreneurs** still think that in the future they will need only the basic to intermediate level of knowledge considering green skills, especially the promotion and encouragement of sustainable practices among guests (75%), communication about the organization's efforts towards the green economy (75%), measurement and management of waste (75%), measurement and management of CO2 emissions (75%), adoption of environmental certifications and management systems (88%), as well as green marketing and product development (87%). On the contrary, they think they will need efficient use of resources (75%), understanding the environmental laws and regulations (72%), green procurement and greening the supply chains (88%), and the use of green technology to speed up the green transition (87%) on the advanced to highly specialized level of knowledge.

2.3.3. Social and Cultural Skills

SURVEYED STUDENTS

The vast majority of **surveyed students** think that in the future they will only need basic to intermediate knowledge regarding their social and cultural skills, such as providing excellent customer service (60%), communicating and interacting with people from different cultural and social backgrounds (62%), supporting diversity, equality and inclusivity (64%), communicating effectively with guests and colleagues (62%), adaptability to change and handle unexpected situations (53%), communicating effectively with guests in their native language (58%), resolving conflicts (58%), understanding the cultural setting of their own destination and sharing this information with guests (58%), working effectively in a team (58%), using analytical skills (53%), using critical thinking (58%), learning-oriented work (60%), learning foreign languages (62%).

SURVEYED TEACHERS

Interestingly, **surveyed teachers** think that in the future they would need mainly intermediate to advanced level of knowledge for many social and cultural skills, such as providing excellent customer service (58%), communicating and interacting with people from different cultural and social backgrounds (58%), supporting diversity, equality and inclusivity (50%), communicating effectively with guests and colleagues (68%), adaptability to change and handle unexpected situations (63%), using analytical skills (71%), using critical thinking (66%), and also learning-oriented work (58%). Many think they only need basic to intermediate level in the knowledge of communicating effectively with guests in their native language (61%), understanding the cultural setting of their own destination and sharing this information with guests (63%), and working effectively in a team (61%). Surprisingly, they think that in the future the knowledge of foreign languages (58%) and resolving conflicts (58%) should be on advanced to highly specialized level.

SURVEYED ENTREPRENEURS

Surprisingly, **surveyed entrepreneurs** think that in the future many social and cultural skills will satisfy basic to intermediate level of their knowledge, such as providing excellent customer service (75%), supporting diversity, equality and inclusivity (75%), adaptability to change and handling unexpected situations (81%), understanding the cultural setting of their own destination and sharing this information with guests (69%), learning-oriented work (56%), and learning foreign languages (63%). They think they would need intermediate to advanced level of their knowledge for communicating and interacting with people from different cultural and social backgrounds (59%), communicating effectively with guests in their native language (56%), resolving conflicts (53%), and also using critical thinking (56%). They think they will need advanced to highly specialized level of knowledge in communicating effectively with guests and colleagues (81%), working effectively in a team (69%), as well as using analytical skills (59%).

3. Focus Group Analysis

Context

Participants	Sectoral, educational, entrepreneurial.
Data Collection Period	May, 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	online focus group
Total Samples Collected	(3 of sectoral) (2 of educational) (3 of entrepreneurial)

3.1. Sociodemographic characterization

In Slovenia, **8** people were surveyed / interviewed **online** for digital, green, and social/cultural skills, of which **3** sectoral (working in management, information service, monitoring – environmental protection), **2** educational (working in secondary school / university) and **3** entrepreneurial (working in tourism / hospitality / catering sector).

ENTREPRENEURIAL GROUP

In entrepreneurial group, 2 males and 1 female were interviewed, all aged between 25 to 54 years of age. One is an undergraduate, whereas the other two have Master' s degree. They work as a Head of information service, another as a Hotel manager, and as an Expert Associate for Monitoring-Environmental protection and Ecotechnological hospitality.

EDUCATIONAL GROUP

In educational group, 1 male and 1 female were interviewed, aged between 35 to 54 years of age. They both have Master' s degree. One works at the Secondary school for tourism and catering Maribor, the other at the Faculty for tourism "Turistica Portorož".

SECTORAL GROUP

In sectoral group, 1 male and 2 females were interviewed, aged between 35 to 64 years of age. One is an undergraduate, whereas the other two have Master' s degree. They work as a waiter in a restaurant, another as a Tourist information officer, and as a Housekeeper in hospitality business.

3.2. Digital skills

ENTREPRENEURIAL GROUP

The interviewed entrepreneurs think that the most important skills in their sector of activity are communication and high level of expertise in the field they cover at work, cooperation, ingenuity, flexibility, hospitality, patience, knowledge of languages, digital skills, as well as good general knowledge. They think that digital skills for their work are very important. They say that knowledge of Word, Excel, MS Office, etc., as well as advanced computer literacy, use of social networks, knowledge of project applications (like ema, jems, etc.) and promotion in the digital world (seo optimization, social networks, e-mail marketing, etc.) are most needed digital skills for employees. They also think that certifications for digital skills are necessary, at least basic ones.

EDUCATIONAL GROUP

The interviewed teachers / professors think that the most important skills in their sector of activity are teamwork, adaptation, knowledge, communication, patience, and joy when working with people. They think that digital skills nowadays are considerably important. The most needed skills in their opinion are those related to teaching and imparting knowledge, as well as sending e-mails, mastering communication platforms (like zoom, teams), the use of MS office and social networks. They say that certifications for digital skills are for now not necessary, but advisable.

SECTORAL GROUP

The interviewed sectoral group claims that the most important skills in their sector of activity are knowledge, proactivity, reliability, cooking, serving, communication with guests, teamwork, knowledge of foreign languages, joy of working with people, ingenuity, collaboration, digital skills and hospitality. They think that digital skills are getting more and more important for their work. They say that mastering reservation systems, knowledge of social networks, e-communication, cash register, accounting programs, the knowledge of basic programs (word, excel, outlook, etc.), invoicing, and translation applications are important in their field of work. They think that certifications for digital skills are not really needed.

3.3. Green skills

ENTREPRENEURIAL GROUP

The interviewed entrepreneurs think that the knowledge of green skills in their sector of activity is getting more and more important. In their opinion, the most needed green skills for their employees are the awareness of the importance for ensuring long-term sustainability – both in one's own work activities and in project results, understanding the green scheme and ecological awareness, sustainable management of resources, recycling, the use of digital brochures instead of printed versions, ability to solve problems and consider sustainability in everyday operations. They think that the green skills certification needs are becoming more and more important.

EDUCATIONAL GROUP

The interviewed teachers / professors think that the environmental awareness is important. The most needed green skills for their employees are teaching and imparting sustainability knowledge, recycling, using digital brochures instead of printed versions, ability to solve environmental problems, saving energy, and caring for our clean environment. They say that green certifications are so far not needed for their jobs.

SECTORAL GROUP

The interviewed sectoral group thinks that green skills in their sector of activity are important and that its importance is increasing. The most needed green skills for their employees are waste separation, supplying as much local food as possible, recycling, paperless business, using digital communication tools as a substitute for live meetings, critical and analytical thinking about our environment. They think that green certifications will be more and more important in the future.

3.4. Social and cultural skills

ENTREPRENEURIAL GROUP

The interviewed entrepreneurs think that social and cultural skills are of great importance for their sector of activity. They say that the most important social and cultural skills for their employees are the ability to recognize the needs of others and solve them, team work, understanding cultural differences when working in international teams, cultural dialogue, communication skills, patience, kindness, professional attitude, and in general all behaviours that promote effective communication and satisfy relationships between people. They say that for now they do not need any certifications for mentioned skills.

EDUCATIONAL GROUP

The interviewed teachers / professors think that social and cultural skills are medium to highly important skills for their jobs. The most important social and cultural skills in their opinion are the ability to cooperate, resolve conflicts, work in a team, to listen, have the ability to make new contacts, also accept other cultures, respect people, have empathy, as well as self-confidence. They say that certifications for social and cultural skills are not needed so far.

SECTORAL GROUP

The interviewed sectoral group thinks that social and cultural skills are really very important for their sector of activity. They state that the most important social and cultural skills for their employees are teamwork, conflict resolution, knowledge of foreign languages, communication skills, fondness of working with people, good communication, resourcefulness, friendliness, hospitability, patience, and professional attitude. They think they do not need any certifications for those skills.

4. Conclusion

Slovenia is an EU country where sustainability plays a great role in people's everyday lives. In Slovenian Tourism Organization, sustainable tourism is today the only possible way to promote our country. We try to include all five senses to perceive Slovenia – sight, taste, type, hearing, smell, and we develop sustainable tourism that appreciates economy, society and environment. In 2022, 90% of all tourist arrivals were covered destinations with the Slovenia Green symbol, and 79% of all funds were intended for the promotion of Slovenia as one of green tourist destinations. In March, 2022 we had 192 bearers of the Slovenia Green sign.

Our survey shows that all surveyed groups are aware of the importance of digital skills and literacy, social and cultural skills, as well as the increasing importance of green skills. Mostly all participants are prepared to learn more in the areas where their knowledge is weaker and would like to improve all the mentioned skills in the future.



5. References

- Sustainable development goals & knowledge platform. (2024). Report of the World Commission on Environment and Development - Our Common Future. Acquired 20. 4. 2024, by <https://sustainabledevelopment.un.org/milestones/wced>
- United Nations Development Programme. (2024). What are the Sustainable Development Goals? Acquired 29. 4. 2024, by <https://www.undp.org/sustainable-development-goals>
- United Nations Development Programme. (2024). Acquired 29. 4. 2024, by <https://sdgintegration.undp.org/#>
- Recommendation of the European Parliament and of the Council on key competences for lifelong learning (2006/962/ES). (2006). Official Journal of the European Union, L394; pages 13-18.

Annex G - Country Report of Spain



GreenHost – Vocational Excellence, Police and Enterprise

United for Hospitality Management Skills adapted on

Environmental Footprint Methods

WP2/A1: Current situation and needs analysis of target

groups

Country: Spain



**Co-funded by
the European Union**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project n° 10144003-GreenHost-ERASMUS-EDU-2023-PEX-COVE

Contents

1. Theoretical Background	2
1.1. Digital Skills	2
1.2. Green Skills.....	3
1.3. Social and Cultural Skills.....	3
2. Survey Analysis.....	5
2.1. Sociodemographic characterization	5
2.2. Current situation analysis	7
2.2.1. Digital Skills	7
2.2.2. Green Skills.....	8
2.2.3. Social and Cultural Skills.....	9
2.3. Future needs analysis.....	10
2.3.1. Digital Skills	10
2.3.2. Green Skills.....	11
2.3.3. Social and Cultural Skills.....	12
3. Focus Group Analysis	14
3.1. Digital skills.....	14
3.2. Green skills	15
3.3. Social and cultural skills	16
4. Conclusions	17
5. References.....	19

1. Theoretical Background

According to the Spanish Statistics Institute (INE, 2023), Spain closed 2023 with record tourism figures. A total of 85.1 million international travellers visited our country between January and December. It points out that the pending per tourist grew even more exponentially in 2023. Foreign exchange increased by 24.7% compared to 2022 and by 18.2% compared to 2019. Non-resident tourists in Spain currently spent 108.662 billion euros in Spain last year.

Due to this current situation, the tourism model faces three major challenges of the 21st century: environmental, economic, and social sustainability (UNWTO, 2023). Sustainable tourism has shifted from being an aesthetic and commercial option to an ethical necessity and an opportunity for integrated development (Martínez-Puche et al., 2019). In this new scenario we face, the dual green and digital transition and the Sustainable Development Goals of the 2030 Agenda point us toward a common horizon and new global challenges. The implementation of new technologies will facilitate a digital transition, presenting a unique opportunity to transform and modernize the country's economic and social foundations. It will also become a fundamental tool for environmental transformation, enabling Spain to achieve a leadership position in the international context (Secretaría de Estado de Turismo, 2024).

One of the fundamental pillars of this transition is promoting the education. Moreover, the academic training of the tourism industry workers is essential to enhance their green and digital skills. This training must facilitate to maintain the competitiveness of the sector but transforming it into a more sustainable sector with a more efficient resources use. Thus, training is considered a key factor for achieving a social and economic development of the Spanish tourism sector (Gobierno de España, 2022).

1.1. Digital Skills

Technological, commercial, and job changes make digital competence a need for tourism professionals. It is not only due to the technical manoeuvres, but encompasses a full range of knowledge, abilities and attitudes that integrate cognitive and technological processes to solve problems and make decisions (Martínez-Puche, et al., 2019). For example, the report of the Secretaría de Estado de Turismo (2024) emphasizes the importance of integrating in the Spanish tourism sector emerging technologies that range from computerization and data literacy, communication and cooperation, digital content creation to digital safety, among others. Even more, digitalization is one of the areas where there is considerable room for improvement, as Spain ranks 27th in “ICT readiness” according to the World Economic Forum's report on tourism competitiveness (World Economic Forum, 2019).

The digital transition must be approached from two perspectives. The first one is focused on the need to promote and accelerate the digital transformation of all stakeholders in a sustainable and inclusive manner. The second one emphasizes the fact of ensuring a fair digital transformation process, paying attention to the design of all the necessary measures, to address the transition period and to generate confidence in the future (SEGITTUR, 2023).

Within this context, there are many professionals who need to be competent in digital skills in the tourism sector. In Spain, different professionals fulfil these requirements such as: system architect, Internet of things (IoT) expert, data scientist, and data literacy; communication and collaboration; blockchain expert, digital content creation expert; cybersecurity and data protection expert; and computer troubleshooting expert, full-stack developer, digital analyst, digital strategist, AI expert,

cloud computing expert, big data manager, e-governance manager, digital and marketing manager, augmented reality expert, and intelligent touristic destinations manager, among others (SEGITTUR, 2023). The need for these profiles reflects the ongoing digital transformation and the emphasis on sustainability within the tourism sector (UNWTO, 2023).

1.2. Green Skills

The environment becomes a competitive factor to provide value and a differentiated territorial brand (Martínez-Puche et al., 2019). The transition to a green economy impacts the required competencies, needing both for the creation of new professions and the adjustments in task distribution within the job roles, with specific requirements related to in company training (Cedefop, 2021).

Ecological transition of the tourism sector is directly related to the STEM areas. This implies a group of professionals with cross-cutting abilities to comprehend scientific knowledge and advancements, serving as a theoretical foundation for innovation and decision-making in the tourism sector. Technical and engineering skills are essential for research and development (R&D) projects that aim at moving forward to the green transition through actions, such as: mitigating climate change, establishing risk prevention plans, improving the energy efficiency on heating, ventilation, and air conditioning (HVAC), using thermal shells, providing efficient lighting, and facilitating renewable energy systems, among others (Ministerio de Industria, Comercio y Turismo, 2022).

Skills in operations management are also crucial for decarbonizing the tourist sector and foster sustainable mobility. It is essential for the implementation of digital systems related to a better carbon footprint management and the reduction of CO2 emissions. Moreover, the acquisition of new skills and the subsequent implementation of the new practices requires the need to provide legal standards and criteria, essential to obtaining adequate certifications, such a Carta Europea de Turismo Sostenible (CETS), Eco-Management and Audit Scheme (EMAS), European Tourism Indicators System (ETIS), among others (Ministerio de Industria, Comercio y Turismo, 2022).

These new practices represent an opportunity for the sector. According to the diagnosis from the State Secretary of Tourism (SEGITTUR, 2022), companies that have implemented sustainable practices have seen a 15% increase in their profitability. These practices include waste reduction and the use of renewable energy, which benefit the environment at the same time they improve the operational efficiency and revenue.

1.3. Social and Cultural Skills

The Recommendation of the European Parliament and of the Council of 18 December 2006 on Key Competences for Lifelong Learning identify and define the eight key competences, two out of them refer to social and civic competence and the cultural awareness and expression (Diario Oficial de la Unión Europea, 2006). The first one on social skills includes personal, interpersonal and intercultural communication and covers all forms of behaviour that equip individuals to participate in an effective and constructive way. The second one on cultural awareness is essential to understand the cultural and linguistic diversity in Europe and other regions of the world. In Spain, these competences gain in importance since it receives visitors from more than 100 different countries. Therefore, the development of social skills and cultural awareness is a fundamental issue that is still not being given particular attention. The tourism degrees at various Spanish universities barely include specific training in their curricula to improve these competencies (Ministerio de Industria, Comercio y Turismo, 2022; Sariego & Mazarrasa, 2020).

Related to the social skills, the Spanish tourism sector also agrees upon that they differ according to the different professionals. Nevertheless, some of the most cross-cutting skills are related to adaptability, flexibility, change management, intercultural communication, friendliness, teamwork, and emotional intelligence. Furthermore, language skills are also highlighted, especially in non-English speaking countries. In this sense, having these skills is essential to providing customers with memorable tourist experiences (Next Tourism Generation Skills Alliance, 2019). Education plays an important role in the tourism sectors and the curriculum must integrate the need to contribute to human capital that, both socially and professionally, ensure interactions that promote inclusion, and respect of local culture, heritage, and solidarity (Sariego & Mazarrasa, 2020).

In conclusion, in addition to the technical and cross-cutting competencies essential to attract and train new profiles within the tourism industry, there is an increasing recognition of the importance of interpersonal competencies. These are crucial not only for ecological competencies but also for overall “future competencies” including those needed for the fourth industrial revolution. Particularly essential are competencies related to design thinking, creativity, adaptability, resilience, and even empathy (Rivas, et al., 2019).

2. Survey Analysis

Context

Population	Students, professionals, and teachers.
Data Collection Period	May-June 2024
Objective	To do an analytical mapping of the digital, green, and social/cultural skills for the sectoral, education and entrepreneurial current situation. To identify the future digital, green, and social/cultural skills needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	Online survey
Total Samples Collected	26 students 41 professionals 39 teachers

2.1. Sociodemographic characterization

The Spanish sample considered for this study is composed of 106 individuals, out of them 24.5% are students, 36.8% are teachers, and 38.7% are professionals. Regarding their age, most of the students are between 18 and 24 years old. However, teachers and professionals are older, being the age range more frequently comprised between 45 and 54 years old (Table 1).

Table 1: Age

	18-24	25-34	35-44	45-54	55-64	+65	Total
Students	69.2%	26.9%	3.8%	0.0%	0.0%	0.0%	100%
Teachers	2.6%	20.5%	20.5%	38.5%	12.8%	5.1%	100%
Professionals	0.0%	12.2%	22%	46.3%	19.5%	0.0%	100%

Source: Own elaboration.

Regarding gender, differences between the groups are observed, considering the profile of the individuals who answered the questionnaire. In this case, most of the students are female, whereas in the case of the professionals, it is the opposite. For the group of teachers, gender responses are more balanced, with males slightly higher (Table 2).

Table 2: Gender

	Female	Male	Total
Students	80.8%	19.2%	100%
Teachers	43.6%	56.4%	100%
Professionals	22.0%	78.0%	100%

Source: Own elaboration.

The results regarding the participants' marital status show that most of the students are single, whereas teachers and professionals' results are similar in both single and married (Table 3).

Table 3: Marital status

	Single	Married	Divorced	Widow	Total
Students	88.5%	11.5%	0.0%	0.0%	100%
Teachers	46.2%	46.2%	5.1%	2.6%	100%
Professionals	41.5%	51.2%	7.3%	0.0%	100%

Source: Own elaboration.

Concerning the sector activity of participants, the tourism sector is the most frequent one for the three groups. The hospitality and restaurant sectors have been chosen less frequently for the three groups. Moreover, in the case of teachers and professionals, it is relevant to mention the selection of other sectors. Professionals mention working in tourism education, consultancy, music, and trading. On the other hand, teachers indicate tourism education, languages, and logistics (Table 4).

Table 4: Sector activity

	Tourism	Hospitality	Restaurant	Others	Total
Students	61.5%	15.4%	23.1%	0.0%	100%
Teachers	46.2%	10.3%	17.9%	25.6%	100%
Professionals	46.3%	14.6%	22.0%	17.1%	100%

Source: Own elaboration.

In relation to the academic status of participants, it is remarkable that more than 50% of the students are undergraduates, while the second most chosen academic status is the master's level. In the case of teachers, more than 50% of them have a PhD, and almost 30% have a master's degree. In the case of professionals, the most chosen academic status is undergraduate, followed by the master's level. It is observed that the high school category is the highest one comparing to the other groups (Table 5).

Table 5: Academic status

	High school	Undergraduate	Master	PhD	Total
Students	3.8%	57.7%	38.5%	0.0%	100%
Teachers	5.1%	15.4%	28.2%	51.3%	100%
Professionals	17.1%	34.1%	29.3%	19.5%	100%

Source: Own elaboration.

Finally, regarding professional experience, it is remarkable that almost all the participants have it. The group composed of students shows a higher percentage without professional experience. Nevertheless, in the rest of the groups, some answers indicate that the participants do not have professional experience (Table 6). Furthermore, among the sample that indicate they have professional experience, the average year of experience is 3.68 for students, 20.43 for teachers, and 23.03 for professionals.

Table 6: Professional experience

	No	Yes	Total
Students	11.5%	88.5%	100%
Teachers	2.6%	97.4%	100%
Professionals	2.4%	97.6%	100%

Source: Own elaboration.

2.2. Current situation analysis

2.2.1. Digital Skills

In the current situation, the results indicate varying levels of proficiency in digital skills used among students, teachers, and professionals (Table 7). In the **secure information processing** variable, teachers rate with a high score than students and professionals. This suggests that they perceive themselves as more proficient in handling secure information compared to the other groups.

When examining the **use of office applications**, all groups show a high level of confidence. However, teachers score with a notable rating indicating strong proficiency. This disparity underscores a significant gap between teachers and the other groups, highlighting a potential area of strength for teachers. In the **context of digital marketing systems** and communications platforms, students rate higher than teachers and professionals, suggesting familiarity. This difference may reflect different levels of use among the groups, with students potentially benefiting from more recent training.

The categories of **digital privacy and ethics** and **digital business analysis, business intelligence, data-driven decision-making** show uniform ratings across all groups. This consistency suggests a general lower awareness of digital privacy, ethics and data decision making. The **use of robots** results reveal a clear deficiency in all groups and a common area of weakness, emphasizing the need of improving, and receiving further training in this area.

Students rate the variables of **use digital technologies to create guest experiences, use of generative applications** and the **Web & app development & programming** higher than teachers and professionals. This suggests that they might be more familiar with the emerging trends in customer experience technology. It could be also attributed to their adaptability to the new technologies, whereas teachers and professionals show less familiarity.

In summary, the results show that teachers struggle with newer technologies like generative AI and digital marketing. Students are confident in these new technologies but, like other groups, lack proficiency in robots and programming. Professionals show moderate proficiency across most areas. These insights emphasize the need for targeted training and development to improve digital literacy and technological skills across all groups.

Table 7: Current situation about digital skills

	Students	Teachers	Professionals
Secure information processing	4.58	5.13	4.85
Use of office applications	5.23	6.05	5.39
Use of digital marketing systems and communications platforms	5.15	4.49	4.78
Digital privacy and ethics	4.73	4.74	4.66
Digital business analysis, business intelligence, data-driven decision making	4.42	4.15	4.39
Use of robots	3.38	2.41	2.37
Use of digital technologies to create guest experiences	4.54	3.36	3.66
Use of generative AI applications	5.23	3.79	2.95
Web & app development & programming	3.42	2.74	3.39

Source: Own elaboration.

2.2.2. Green Skills

Regarding the current level of green skills (Table 8), the results show that teachers are the group with less command of the types of competencies. However, students and, especially, professionals, have a higher perception of their green skills level. Nevertheless, all the averages are lower than 6, so there is still room for improvement in these competencies.

Regarding the specific green skills, the **efficient use of resources** and the **promotion and encouragement of sustainable practices among guests** are the two competencies with the highest rate from participants, being specially mastered by professionals. **Understanding environmental laws and regulations** is more familiar for professionals than for students, maybe since professionals need to update their business models to meet legal requirements. This pattern is reproduced in **communication about the organisation's efforts towards a green economy**, which can probably be explained in terms of the daily practice of internal and external communication with real customers.

Measurement and management of waste is another skill that students and professionals mention to have acquired more differently than teachers. It happens the same with the **measurement and management of CO₂**, although the level of this skill is lower for all the groups compared to the previous competence level. Regarding the competences that are less achieved for the participants, it is found the **adoption of environmental certifications and management systems**, as well as the **use of technology to speed up the green transition**. This suggests the need for training in sustainable, but also digital competences. Finally, **green procurement and greening the supply chains** and **green marketing and product development** are perceived as two weaknesses in which it would be necessary to train the participants.

In summary, the results show that teachers have a lower level of green skills than the other groups. Professionals seem to be the most prepared group for the green transition, as they are probably facing the need to adapt the companies in their daily professional lives to be more sustainable. Nevertheless,

the level of green skills for all the groups should be higher, showing the need to be trained in these types of competences.

Table 8: Current situation about green skills

	Students	Teachers	Professionals
Efficient use of resources (e.g. energy, water, materials)	5.42	4.95	5.76
Promotion and encouragement of sustainable practices among guests	5.27	4.95	5.83
Understanding of environmental laws and regulations	4.69	4.51	5.41
Communication about the organization's efforts towards a green economy	4.65	4.79	5.46
Measurement and management of Waste	5.54	4.44	5.46
Measurement and management of CO2 emissions	4.46	3.54	4.8
Adoption of environmental certifications and management systems	4.38	4.1	4.46
Green procurement and greening the supply chains	4.15	3.62	4.32
Green marketing and product development	4.96	3.97	4.63
Use of technology to speed up the green transition	4.35	3.69	4.07

Source: Own elaboration.

2.2.3. Social and Cultural Skills

Based on the results (Table 9), it is showed that social skills are more achieved in comparison to the green and digital ones. However, students are the group with the lowest current level of social and cultural skills, which could be explained due to their initial training period.

On the one hand, the skills related to interculturality, such as **communication and interaction with people from different cultural and social backgrounds** and the **support for diversity, equality and inclusivity**, are rated with higher scores in comparison to other social competences. However, **understanding the cultural setting of one's own destination and sharing this information with guests** has been rated lower than the previous ones, even though they are also related to intercultural connexions. Moreover, all these skills are rated slightly higher by professionals.

The **effective communication with guests and colleagues** was scored similarly by professionals and teachers, demonstrating to have a more proficiency level than students. On the contrary, teachers show a lower average in **providing excellent customer service**. This could be because they do not interact directly with guests or tourists in their daily lives. Regarding **adaptability to change and handle unexpected situations**, students seem less prepared than the other groups, maybe due to their lack of professional background. They are still less competent in **solving conflicts**.

On the other hand, participants acquire fewer skills related to **communicating effectively with guests in their native language** and mastering **foreign languages**, being the students the group who would

need to improve in this area. Other soft skills that are more remarkable for teachers include **working effectively in a team, analytical skills, critical thinking**, and being **learning-oriented**.

In summary, it is important to remark that teachers show to be more proficient when contacting with the clients. The interculturality competence seem more integrated in all three groups. According to these results, there is a common need among students to improve their competences in foreign languages, and the same happen to the unexpected situations and conflict resolution skills.

Table 9: Current situation about social and cultural skills

	Students	Teachers	Professionals
Provide excellent customer service	6.27	5.95	6.66
Communicate and interact with people from different cultural and social backgrounds	6.46	6.51	6.85
Support diversity, equality and inclusivity	6.50	6.49	6.61
Communicate effectively with guests and colleagues	5.92	6.51	6.80
Adaptability to change and handle unexpected situations	5.85	6.56	6.71
Communicate effectively with guests in their native language	5.46	5.97	5.98
Resolve conflicts	5.50	6.21	6.32
Understand the cultural setting of the own destination and share this information with guests	6.04	6.13	6.56
Work effectively in a team	6.35	6.92	6.54
Analytical skills	6.19	6.56	6.29
Critical thinking	5.88	6.90	6.56
Learning-oriented	6.31	6.95	6.59
Foreign languages	5.50	5.79	5.34

Source: Own elaboration.

2.3. Future needs analysis

2.3.1. Digital Skills

In the future needs analysis of digital skills (Table 10) teachers score higher in **secure information processing** than the other two groups, indicating a greater awareness of secure data and information. Similar results are found in **use of office applications** in all three groups. This highlights the importance of being familiar with these applications in different working environments and emphasizes their fundamental role in digital literacy in the future.

Students show slightly high score in **use of digital marketing systems and communications platforms** than teachers and professionals. It might suggest that students are continuously exposure to technological trends and enhance their willingness on the use of communication platforms. In the

Digital business analysis, business intelligence, and data driven decision-making, both students and teachers score higher than professionals. This suggests that a trend towards incorporating them in the training and career stages.

The **use of robots** shows lower scores across all three groups, pointing to a need for improved training and knowledge in this area. Students rate the **use of digital technologies to create guest experiences** higher than teachers and professionals, suggesting the emphasis for this need. In the variable of **use of generative AI applications**, students and teachers score higher than professionals, reflecting a tendency towards more engagement with AI technologies in educational contexts. **Web and app development and programming skills** show similar results across all groups, indicating a uniform recognition of their importance in the future digital competences.

In summary, the results show that teachers struggle with new technologies like generative AI and digital marketing, whereas students show a more confidence attitude. However, as noticed in other groups, they show interest in gaining more competences in the use of robots and programming. Professionals show moderate proficiency across most areas without leading in any. These insights emphasize the need for training to improve digital literacy and technological skills across all groups in the future.

Table 10: Future needs about digital skills

	Students	Teachers	Professionals
Secure information processing	5.92	6.31	5.90
Use of office applications	6.08	6.85	5.98
Use of digital marketing systems and communications platforms	6.19	5.46	5.61
Digital privacy and ethics	6.46	6.36	5.90
Digital business analysis, business intelligence, data-driven decision making	6.23	6.05	5.56
Use of robots	5.42	4.95	4.05
Use of digital technologies to create guest experiences	6.00	5.79	5.46
Use of generative AI applications	6.27	6.56	4.98
Web & app development & programming	5.58	5.10	4.63

Source: Own elaboration.

2.3.2. Green Skills

Regarding the future needs analysis of green skills (Table 11), it is remarkable that participants have increased their level of rating in comparison to their current level of these competences. This shows an awareness regarding all the green skills proposed, as there are no remarkable differences in the rating across them. Nevertheless, all the averages are between 6 and 7, indicating that participants do not still give a high importance to green transition.

Regarding the **efficient use of resources** and the **promotion and encouragement of sustainable practices among guests**, all the participants agree upon that they are two of the most important skills to be acquired to face the challenges of the future. For the last one, professionals really value the important role of this skill in their professional life in the future.

In relation to **communication about the organization's efforts towards a green economy** and **understanding of environmental laws and regulations**, participants also assess these competences as relevant. Moreover, for the second skill, students consider it to be more important in comparison to the perception of the teachers and professionals. Similar situation happens with the **measurement and management of waste and CO2 emissions**. Students also think that they need these skills slightly more than the other groups.

Moreover, there are a set of skills that are less appreciated by participants as needed in the future. In fact, all groups show to be less competent nowadays, but also show no special interest in gaining it in the future. The **adoption of environmental certifications and management systems** and the **use of technology to speed up the green transition** are perceived less importantly. However, these are the only two competences which has been more demanded by teachers in comparison to the rest of the groups. Finally, the **green procurement and greening the supply chains** and the **green marketing and product development** are slightly more required by students, although all the groups do not perceive them as the most important skills.

In summary, the results show that students are the group that show more awareness of the fact that they need green skills in the future in comparison to the teachers and professionals. Nevertheless, differences among groups are not significant different. Furthermore, it is surprisingly observed that the skills they currently dominate are the same ones that they are also willing to use in the future.

Table 11: Future needs about green skills

	Students	Teachers	Professionals
Efficient use of resources (e.g. energy, water, materials)	6.62	6.62	6.46
Promotion and encouragement of sustainable practices among guests	6.35	6.56	6.76
Understanding of environmental laws and regulations	6.62	6.44	6.24
Communication about the organization's efforts towards a green economy	6.35	6.33	6.32
Measurement and management of Waste	6.38	6.18	6.20
Measurement and management of CO2 emissions	6.23	5.97	6.02
Adoption of environmental certifications and management systems	6.00	6.21	6.05
Green procurement and greening the supply chains	6.15	5.69	5.73
Green marketing and product development	6.12	6.00	6.05
Use of technology to speed up the green transition	6.19	6.21	5.98

Source: Own elaboration.

2.3.3. Social and Cultural Skills

In the results of the future needs of social and cultural skills (Table 12), higher scores are detected compared to the green and digital skills.

In the **provide excellent customer service** variable, professionals score higher than teachers and students. This suggests that professionals, due to their experience in the field, show the need of gaining more competences in this field. **Communication and interaction with people from diverse cultural and social backgrounds**, teachers show higher scores in comparison to the results obtained in students and professionals. This might indicate that teachers show the need of gaining more competences in communication and how to respect diverse cultural and social backgrounds. **Supporting diversity, equality, and inclusivity** and **communicating effectively with guests and colleague**, teachers show higher scores than the other groups. This might reflect their future educational roles and responsibilities when providing training actions.

Regarding the **adaptability to change and handle unexpected situations**, teachers and professionals obtained higher scores than students. It could be attributed to their need to constantly adapt to different teaching and working environments. **Understanding in the cultural setting of the own destination and sharing this information with guests**, they are scored by teachers higher than professionals and students. It might be due to the necessity of continuous adaptation to future trends, in terms of cultural and social. Regarding the soft skills: **resolve conflicts**, **work effectively in a team**, **analytical skills**, **critical thinking**, **learning-oriented** and **foreign languages**, teachers show higher scores (all above 7). This might suggest that soft skills are crucial for teachers in the future as they foster effective communication, adaptability, conflict resolution or critical thinking, which are essential in creating a learning environment and addressing diverse future learning needs.

In summary, teachers are more likely to gain competences on social and cultural. As observed communication, support to the diversity and adaptability are remarked by this group of participants and could be explained due to their important role as educators. However, students and professionals also show interest in obtaining these skills since the difference among the results are not very high.

Table 12: Future needs about social and cultural skills

	Students	Teachers	Professionals
Provide excellent customer service	6.96	7.08	7.15
Communicate and interact with people from different cultural and social backgrounds	7.08	7.41	6.98
Support diversity, equality and inclusivity	7.08	7.56	7.07
Communicate effectively with guests and colleagues	7.12	7.44	7.12
Adaptability to change and handle unexpected situations	6.88	7.46	7.05
Communicate effectively with guests in their native language	6.65	7.21	6.63
Resolve conflicts	6.85	7.46	6.88
Understand the cultural setting of the own destination and share this information with guests	6.69	7.13	6.98
Work effectively in a team	6.96	7.54	6.98
Analytical skills	6.81	7.44	6.85
Critical thinking	6.96	7.62	6.98
Learning-oriented	7.04	7.62	6.98
Foreign languages	6.85	7.15	6.54

Source: Own elaboration.

3. Focus Group Analysis

Context

Participants	Joan Ramon Blaya. <i>Professor and Director of Innovation at CETT and Academic Director of the Degree in Digital Business and Innovation in Tourism</i> (Educational) Elena Ridolfi. <i>Professor and Coordinator of the specialty of Responsible and Sustainable Tourism of the master's in business management at CETT.</i> (Educational) Enric Dotras. <i>Hotelier and President of the Lloret de Mar Hospitality Guild.</i> (Sectorial) Narcís Coll. <i>Hotelier, President of the Governing Council of the Montgrí Natural Park, Medes Islands and Baix Ter, and President of the Gaspar Espuña-CETT Foundation.</i> (Sectorial) David Cano. <i>Tourist experience guide in Besòs.</i> (Entrepreneur) Dani Gavalda. <i>CEO and Co-founder of Lueira.</i> (Entrepreneur)
Data Collection Period	12 June 2024
Objective	To perform an analytical mapping of digital, green, and social/cultural competences in the current situation of the sectorial, educational, and entrepreneurial sectors. To identify the future digital, green, and social/cultural competences needed for the tourism sector, education, and entrepreneurship.
Data Collection Method	Physical focus group
Total Samples Collected	2 of sectorial 2 of educational 2 of entrepreneurial

3.1. Digital skills

According to the participants of the focus group, digital skills, and technology in general, are crucial for the tourism business sector since they improve operational and strategic efficiency, as well as decision-

making in businesses. Furthermore, digital skills also have a positive impact on the experience and satisfaction of both internal and external customers: *“There are three business levels: digitization (moving from analogue to digital), digitalization (affecting company processes), and digital transformation (affecting the business model). In 90% of companies, everything that can be digitized and digitalized should be for efficiency and because it helps us make decisions because everything is simplified”*.

Therefore, technology needs to be brought closer to all stakeholders, including business owners, employees, and end-users. For this reason, tourism companies highlight the need for their professionals to have a minimum level of digital skills to help with the digital transformation of the companies themselves.

The results of the focus group also indicate that the current education system is already beginning to integrate these cross-cutting skills and digital tools in the different curriculum. However, there is still a need to empower teachers and students about the importance of digitalization in the workforce. The reality is that there are *“many professional profiles within companies with different levels of training in digital skills”*, which means that companies must take responsibility for training their employees to ensure they have a minimum level of digital competencies.

Unfortunately, many things still need to be reconsidered at a technological level. For example, it is noted that *“sometimes there is a lack of a stronger link between education and business”*, and it is even pointed out that *“university training programs do not adapt to the current reality. For instance, they do not allow the use of technologies that students have been using for years”*.

The current great challenge is the incorporation of artificial intelligence (AI): *“After the industrial revolution and the advent of the Internet, I would say that today, we are witnessing one of the greatest explosions of development in human history. Artificial intelligence will be one of the vectors that will direct the world in the coming years, and therefore it is easy to understand that we all need to get involved”*. Consequently, the educational and training system must be adapted to new technological trends such as AI, because professionals at all levels will need to have knowledge of these new competencies and digital tools.

In conclusion, while living with technology is essential, it is equally important to regulate its use *“there are no regulatory norms”*. Unfortunately, we find ourselves lagging behind *“we lack agility”*.

3.2. Green skills

According to the participants, it is crucial for companies to pursue green certifications since these bring improvements to the company and its operations: *“Certifications help, at the very least, to get organized internally if you have never done anything before”*. Moreover, these certifications require companies to invest in internal training at all levels: *“so that the worker can be trained and collaborate to ensure the entire company evolves in this direction”*.

Additionally, it has been observed that green practices lead to cost reductions, despite initially requiring a significant investment. In this regard, it is also noted that implementing preventive measures is always more economical than executing emergency measures: *“studies have shown that implementing preventive measures results in lower emergency management costs. Therefore, the perspective needs to change”*.

Cooperation is a driving force for developing green competencies, and a good example is the local or regional implementation of sustainability, as seen with the certification of Lloret de Mar as a tourist destination: *“it has helped many companies to step up their efforts, and we now have more than 50%*

of accommodation places certified. What is very good is that we have information about Lloret, without names, that everyone can see and track the progress of each company, motivating everyone to step up their game to improve, reduce electricity consumption, and address emissions issues. All of this has given us a very positive dynamic”.

Regarding the green challenges that tourism companies currently face, the participants of the focus group agree upon that *“the first actions were taken on electricity issues because electrical consumption was much more costly than water consumption. We have reacted to water issues more due to cost increases rather than awareness. The same applies to food.”* Specifically, it is pointed out that there is still much work to be done in managing and consuming water: *“We waste millions of litres of water every day, which is practically potable water. There are a whole series of things that if we tackled a bit, in a more sustainable way, we would consume 70% of the water we currently use”*. As mentioned, there is also the challenge of promoting the consumption of local food to reduce the carbon footprint and to support the local economy.

An example highlighted during the focus group related to the water challenge is that the Hospitality Guild of Lloret de Mar decided to acquire a mobile desalination unit to address drought during a state of emergency, allowing them to fill pools and allocate excess water for drinking.

Another challenge is involving the client in sustainable practices: *“statistics show that when we are away from home, we tend to consume more, and companies now have the responsibility to educate the client”*. Therefore, there is a recognized need to educate clients on green competencies: *“so, I don’t know how we should convey this without it feeling imposed, but rather, how we can amicably make the client our accomplice”*. For this reason, one proposal is to achieve this through incentive programs for clients who adopt sustainable practices: *“we give an award to the most sustainable client of the day or the week, the one who requests fewer changes of sheets or towels, you incentivize it and it yields results”*.

In conclusion, the introduction of sustainable practices falls on the private initiatives, far exceeding regulations and political involvement, in response to the current climate emergency and the lack of natural resources. Additionally, these actions can be extrapolated to any destination and/or tourism establishments: *“we have to challenge people, we have to challenge entrepreneurs and make visible how sustainable they are”*.

3.3. Social and cultural skills

On one hand, it is observed that companies have already integrated digitalization and sustainability transversally into their plans. However, *“there remains an essential, pending subject: the social dimension”*. These companies assert that *“there must be a governance model to support this change,”* indicating that there is still much progress to be made at the regulatory level.

On the other hand, it is observed that tourists increasingly value and seek sustainable practices in their travels, preferring destinations and establishments that respect the environment, promote local culture, and offer authentic and responsible experiences: *“there are many people willing to pay a little extra to go to level three sustainability companies (according to the sustainability scale used by booking), and this, for entrepreneurs is a competitive advantage”*.

Despite this, sustainability training must be maintained as it is essential for developing social and cultural competencies that promote a more conscious, equitable, and respectful society: *“we must work much more with education. We need to continue and work much more on training in sustainability issues, it is vital. There is still a long way to go.”*

4. Conclusions

The conclusions of the study are focused on the analysis of the theoretical framework, and the results obtained within the survey and focus group. Main findings are summarized as follows:

Starting with the **digital skills**, the analysis within the theoretical framework revealed that digital competence is crucial for tourism professionals due to the technological, commercial, and job changes in the industry. The Spanish tourism sector needs to integrate emerging technologies, including computerization, data literacy, and digital safety. The digital transition in tourism must be sustainable, inclusive, and fair. This transition requires a variety of digital skills across roles such as system architects, IT experts, data scientists, blockchain experts, and much more, reflecting the ongoing digital transformation. Survey results showed different digital skill levels among students, teachers, and professionals, with teachers excelling in secure information processing and office applications, while students in digital marketing systems and generative artificial intelligence (IT). Despite this, all groups showed lower proficiency in areas like robot usage and web/app development and highlighted the importance of gaining more competences focused on new technologies and emphasized the need of further training to improve them in the future. The results of the focus group also emphasized the importance of digital skills and technology in the tourism sector for enhancing operational and strategic efficiency, decision-making, and customer satisfaction. The participants stressed the need for employers, employees, and clients to be proficient in digital skills. While the education system is beginning to incorporate these skills into their curriculum, more efforts are needed to train the stakeholders of the tourism sectors on the importance of digitalization in the workforce. Additionally, they highlighted the lack of regulatory norms and the need for greater agility in adapting to technological advancements.

Regarding the **green skills**, desk research showed a big concern in the Spanish tourism industry. For example, some green certifications were created to encourage companies to be more sustainable. In the focus group, it was agreed upon that certifications help companies plan and implement actions. Nevertheless, the survey results revealed that all groups of participants seem to give less importance to adopting green certifications in the present and in the future, showing a lack of awareness on this issue. Another key idea is that being green should be an ethical duty for companies. However, they can also benefit from efficiency and the revenue that they can obtain. The participants of the focus group also indicated that implementing preventive measures may lead to more sustainable and cost reductions, although it requires an initial investment. In the survey's case, the measurement and management of waste and CO₂ are also considered necessary. To achieve green goals, desk research and focus group showed that tourism professionals need to be trained to acquire green skills, which sometimes are related to other sectors, such as engineering, electricity or water management, agri-food, among others. In the focus group, cooperation within different sectors was also highlighted. However, participants in the survey seemed to be unaware of the skills needed to adopt technology to transform the tourism sector environmentally. The Focus group also revealed the need to educate clients through incentive programs when travelling also emerged. This aspect was aligned with the survey results, which showed that participants appreciate the promotion of sustainable practices among guests both in the present and the future.

About **social skills**, desk research revealed the need for training of tourism students and professionals in this area. In this sense, interpersonal and intercultural communication have been identified as key in the tourism sector. Moreover, the results of the survey showed that the competence referred to the communication and the interaction with people from different cultural and social backgrounds was

one of the highest achieved and perceived as important in the future. Learning foreign languages was also highlighted as important in the desk research. The survey results showed that there was a room for improvement regarding the level of participants, although they recognized the importance of enhancing this area. Cultural awareness and respect for heritage have been also remarked in the desk research. In the survey, understanding the cultural setting of destination is not perceived as a relevant skill. However, they recognized the importance of gaining this skill in the future. Desk research also referred to other cross-cutting competences, such as flexibility, adaptability, emotional intelligence or empathy. Survey's participants indicated that their level of skills in adaptability, handle unexpected situations, analytical skills or critical thinking is lower than expected, indicating training needs. The focus group results indicated that companies have already incorporated digitalization and sustainability into their educational plans. However, the social dimension remained a crucial area that needs further attention. Tourists prioritize sustainable practices that promote local culture and offer responsible experiences. This preference was seen as a competitive advantage for the companies, with many tourists willing to pay more for high-level sustainability. Therefore, continuous training is relevant for developing social and cultural competences, promoting a more conscious, equitable, and respectful society.

5. References

- European Centre for the Development of Vocational Training (Cedefop) (2021). *Green skills and environmental awareness in vocational education and training*. Publications Office of the European Union. https://www.cedefop.europa.eu/files/5524_en.pdf
- Rivas, R. M., Cardoso, E. O., & Cortés, J. A. (2019). Proposal of Professional Competencies in Tourism from the employer's approach. *RIDE Revista Iberoamericana Para La Investigación Y El Desarrollo Educativo*, 9(18), 195–214. <https://doi.org/10.23913/ride.v9i18.418>
- Gobierno de España (2022). *Plan de modernización y competitividad del sector turístico*. https://turismo.gob.es/es-es/estrategia/02_doc_completo_pmcst_enero_2022_online.pdf
- Martínez-Puche, A., Amat, X., Hortelano, L. A., Iranzo, E., Palací, Q., Prieto, A. & Zúñiga, M. (2019). *Informe sobre el impacto del turismo y su incidencia en la sostenibilidad desde el punto de vista territorial*. https://www.segittur.es/wp-content/uploads/2020/07/INFORME_TURISMO-SOSTENIBLE.pdf
- Ministerio de Industria, Comercio y Turismo (2022). *Plan de modernización y competitividad del sector turístico*. https://turismo.gob.es/es-es/estrategia/02_doc_completo_pmcst_enero_2022_online.pdf
- Next Tourism Generation Skills Alliance (2019). *Executive Summary of the NTG Country Interview Reports on the Future of Digital, Green and Social Skills in Tourism*. https://pure.buas.nl/ws/portalfiles/portal/1000533/Koerts_NTG_Country_Interview_Report_Europe_Summary.pdf
- Recomendación del Parlamento Europeo y del consejo de 18 de diciembre de 2006 sobre las competencias clave para el aprendizaje permanente* (2006/962/CE). Diario Oficial de la Unión Europea § L394/10 (2006).
- Sariego, I., & Mazarrasa, K. (2020). Key competences for cultural awareness and social skills in the tourist industry. *Journal of Tourism and Heritage Research*, 3(1), 469-488.
- Secretaría de Estado de Turismo (2024). *Plan de formación en competencias digitales en el sector turístico*. https://www.mintur.gob.es/es-es/recuperacion-transformacion-resiliencia/Documents/Competencias_Digitales_DEF.pdf
- SEGITTUR. (2022). *Informe de digitalización de las pequeñas empresas y microempresas turísticas españolas*. https://www.pymeturisticadigital.es/media/pdfs/Informe_completo.pdf
- SEGITTUR. (2023). *Informe «Empleos de futuro para ciudades y destinos turísticos inteligentes»*. [Segittur.es. https://www.segittur.es/sala-de-prensa/informes/empleos_futuro_ciudades_destinos_turisticos_inteligentes/](https://www.segittur.es/sala-de-prensa/informes/empleos_futuro_ciudades_destinos_turisticos_inteligentes/)
- UNWTO (2023). *Tourism and Sustainability: Global Trends and Policy Responses*. <https://www.unwto.org/tourism-and-sustainability-report>
- World Economic Forum (2019). *The Travel & Tourism Competitiveness Report: Travel and Tourism at a Tipping Point*. https://www3.weforum.org/docs/WEF_TTCR_2019.pdf