



**From Digital to  
Smart Tourism**

# FROM DIGITAL TO SMART TOURISM

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## **SMART TOURISM**

**PRACTICE MANUAL**



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INTERNATIONAL WORLD EVENTS

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## 1. INTRODUCTION

The tourism universe is at a crucial juncture, driven by two key driving forces: digitalization and sustainability. At the heart of this dynamic evolution, this manual entitled "Smart Tourism Practice Manual" is presented as an essential guide for tour operators, SMEs and organizations in the sector eager to successfully navigate the complex intertwining of digital and sustainable.

Entering the pages of this manual, we will embark on an exploratory journey of the forces that are redefining the tourism landscape. We will start with an in-depth analysis of the combined impact of digitalization and sustainability, two drivers of change that are shaping the future of the industry. We will take a close look at the priorities of the European Union, which is committed to promoting a digital and sustainable revolution in tourism. With an eye to the future, we will try to give concrete meaning to smart, digital and sustainable tourism, laying the foundations for a clear and shared vision.

Next, we'll dive into the unique realities of Italy, Spain, and Turkey. We will explore the unique challenges and brilliant opportunities that emerge in these destinations, highlighting how digitalization and sustainability are intertwined in the tourism fabric of each country. Through a relational analysis of national needs, objectives and challenges, we will design common strategies to develop a more digital and sustainable tourism.

Finally, we will address key topics such as the methodology for identifying good practices in sustainable tourism, the digital tools available and the challenges related to the development and use of digital technologies, responding to the specific needs of tour operators. With this handbook, we aim to provide a practical guide for those who wish to embrace modern, digitalized and sustainable tourism.

## 2. Digitalization and Sustainability in Tourism

Sustainable tourism refers to the practice of traveling responsibly and sustainably, while minimizing environmental and cultural impact. Digitalization and sustainable tourism are two important topics in the tourism sector. Digitalization can help tourist destinations improve the efficiency of their processes and personalize the visitor experience. In addition, digitalization can also contribute to the fight against climate change and the protection of the environment.

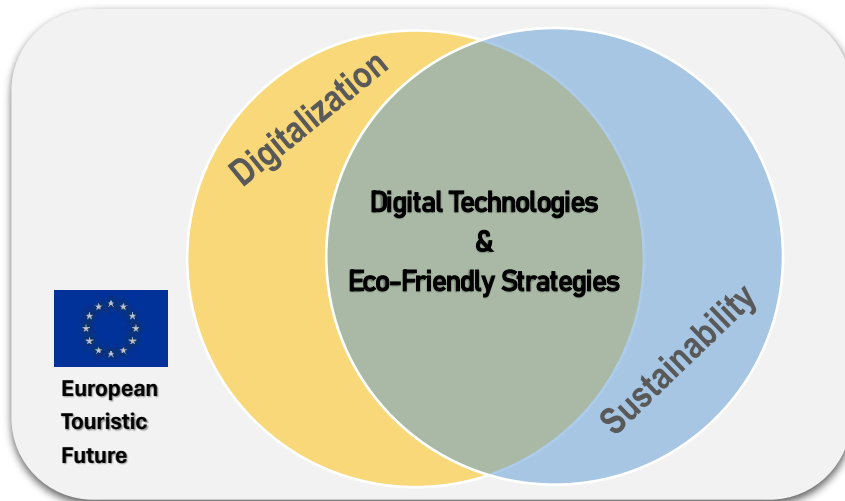
**Digitalization in** tourism is about the extensive use of digital technologies to improve the management of tourism activities, the enjoyment by travelers, and the promotion of destinations. This includes implementing online booking systems, mobile apps, artificial intelligence, virtual reality, and other digital solutions to streamline the traveler experience and optimize the operations of tourism businesses.

**Sustainability in** tourism is a critical response to environmental and social concerns related to the tourism industry. In this context, we try to minimize the environmental and social impact of tourism activities by promoting responsible and sustainable practices. This includes adopting eco-friendly strategies, supporting local communities, preserving cultural heritage, and sustainably managing natural resources.

Digitalisation and sustainability in Tourism reflects the current trend in Europe towards the increasing incorporation of digital technologies in the tourism sector, in parallel with the urgent need to promote more sustainable practices. This combination represents a response to the challenges and opportunities that modern tourism presents in the digital age, with the aim of improving the efficiency, safety and environmental impact of the tourism industry.

### 3. Interconnection between Digitalization and Sustainability.

#### *Digitalization Vs. Sustainability in Tourism Sector*



Source: Own Processing, 2023

The intersection of digitalization and sustainability in tourism involves using digital technologies to improve the overall sustainability of the sector. For example, digitalization can foster the smart management of resources, the promotion of sustainable behaviors by travelers, and the creation of tourism experiences that respect the environment and local culture.

In Europe, this topic is at the heart of discussions and initiatives, as the European Union and tourist destinations seek to embrace digital transformation to improve efficiency while at the same time adopting more sustainable practices to preserve heritage and the environment. Projects and policies that integrate digitalisation and sustainability into tourism are crucial to shaping a more innovative, responsible and environmentally friendly European tourism future.

### 4. Digitalization and Sustainability in the Tourism Sector: EU Priorities.

The European Union (EU) has placed particular emphasis on integrating digitalization and sustainability into the tourism sector. The EU's priorities in this context are:

#### **4.1. Digitalization for Innovation.**

The EU promotes research and adoption of emerging technologies in tourism, such as artificial intelligence to personalise the customer experience and machine learning to analyse traveller behaviour patterns.

It incentivizes the development of integrated digital platforms that enable travel booking, access to local information, and direct interaction with tourism services, thereby improving operational efficiency and customer experience.

#### **4.2. Environmental and Social Sustainability.**

The EU works to implement sustainable land management policies, promoting the conservation of natural resources and the protection of sensitive areas, such as national parks and nature reserves. In addition, it is committed to encouraging socially responsible practices in the tourism sector, working with businesses to ensure that workers' rights are respected and that local communities are involved in decisions affecting tourism.

#### **4.3. Promotion of Local and Regional Tourism.**

The EU supports initiatives that promote tourism at local and regional level, encouraging the diversification of tourism offerings to include authentic and sustainable experiences. It fosters projects that contribute to the economic development of local communities through tourism, reducing dependence on mass tourism activities.

#### **4.4. Standardization and Certifications.**

The EU promotes the use of eco-labels and environmental certifications in the tourism sector, encouraging businesses to comply with high environmental standards and empowering travellers to make informed choices.

#### **4.5. Education and Awareness.**

It implements educational programs for industry professionals and travelers, focusing on sustainable practices, environmental and social impacts of tourism, and encouraging responsible behavior. It promotes clear and transparent communication on the sustainable practices adopted by tourism businesses, helping to raise awareness among travellers and raise awareness.

#### 4.6. Transnational collaboration.

It fosters the continuous exchange of good practices between member countries, allowing for closer collaboration and the adaptation of successful solutions to different contexts. It offers funding and incentives for transnational projects that address common challenges, stimulating collaboration and co-creation of innovative solutions.

These insights highlight how the EU is comprehensively and integratedly addressing digitalisation and sustainability in the tourism sector, addressing the challenges and seizing opportunities for a more resilient, smart and sustainable European tourism.

#### 5. Tourism: smart, digital and sustainable.

In the post-pandemic phase, there is a need to re-evaluate and reinvent the tourism sector. The key to survival seems to lie in renewal and adaptation to new realities, to the new world context. Inspired by the idea of "renew or die", it highlights that technological transformation is essential to revitalize tourism.

Digitalization and sustainability emerge as key pillars for the future of the industry. Tourism intelligence, supported by data analysis and a deep understanding of the traveler's needs, is an essential tool. In addition, the acceleration of digital transformation through smart technologies, such as live streaming e-commerce, virtual reality and artificial intelligence, is conceived as the path to a better and more interactive tourism experience<sup>1</sup>.

Sustainability is positioned as a third crucial tool, supported by government strategies and the implementation of smart tourism destinations. For example, in Spain, a comprehensive strategy for sustainable tourism is being developed<sup>2</sup>, and the certification of smart tourism destinations is based on criteria such as governance, sustainability, accessibility, innovation and technology.

It is important to take a bold attitude towards technology in the tourism sector. Technological transformation is the solution needed to save tourism<sup>3</sup>. Yes, digitalization and emerging technologies, such as virtual reality, robotization, contactless technology and virtual assistants, present themselves as powerful allies to drive the recovery of the

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<sup>1</sup> European Commission, Shaping Europe's digital future, 19 February 2020.

<sup>2</sup> <https://www.ilgiornaleditalia.it/news/lavoro/564823/turismo-la-spagna-punta-a-strategia-di-meta-sostenibile-anche-per-il-2024.html>

<sup>3</sup> <https://www.techeconomy2030.it/2023/09/27/il-futuro-sostenibile-del-turismo-passa-dalla-trasformazione-digitale/>

tourism sector in favor of sustainability and process efficiency. Not only do these technologies help combat climate change, but they also play a crucial role in protecting the environment; Without sustainability, there is no future for tourism.

## 6. European Tourism Model

The European tourism model is a set of principles and guidelines that aim to make tourism in Europe sustainable, resilient, digital, global and social<sup>4</sup>. According to the Council of the European Union, tourism is a cross-cutting economic and social activity with a broad impact on regions' economic growth, employment and sustainable social and environmental development, contributing to the preservation and promotion of European values and cultural heritage.

The European Tourism Agenda<sup>5</sup> 2030 is the document that sets out the main milestones in terms of sustainability and digitalization that Europe is committed to undertaking to equip the sector with more tools and thus achieve a more resilient tourism ecosystem by 2030. This Agenda, which is the result of a process of reflection with Member States, is accompanied by a multiannual EU work plan with concrete voluntary actions for States, relevant public authorities, the Commission and other stakeholders in the tourism ecosystem, providing strategic guidance to monitor the progress of the Agenda in five priority areas<sup>6</sup>:

Enabling governance framework. Ensure collaborative destination management and have an EU Tourism Scorecard that provides indicators and statistics at national, regional and local levels.

Green transition: improving the circularity of tourism, reducing the carbon footprint of tourism by promoting circularity and efficient use of resources.

Digital transition: promoting the digitalisation of SMEs in the tourism sector and creating frameworks for sharing tourism data.

Resilience and inclusion: increasing the accessibility of tourism services and increasing the capacity of destinations and businesses to withstand future crises.

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<sup>4</sup> <https://www.simtur.it/simtur/consiglio-unione-europea-turismo-in-europa-nel-prossimo-decennio/>

<sup>5</sup> <https://www.consilium.europa.eu/en/press/press-releases/2022/12/01/new-european-agenda-for-tourism/>

<sup>6</sup> <https://data.consilium.europa.eu/doc/document/ST-15441-2022-INIT/en/pdf>



Human capital: developing new skills of workers to ensure they are adapted to the future needs of the tourism sector.

## 7. DIGITAL & SMART TOURISM: ITALY

### **Digitalization Initiatives:**

Italy has taken several initiatives to embrace digitalization in the tourism sector. These initiatives include the development of digital platforms for tourism promotion, the implementation of online booking systems, and the use of digital marketing strategies to attract visitors.

### **Promotion of Smart Destinations:**

There is a growing interest globally in smart tourist destinations that leverage technology to improve the overall visitor experience. In Italy, innovative solutions were explored to improve the accessibility, connectivity and sustainability of tourist destinations.

### **Sustainability Practices:**

As part of a global trend, Italy has placed more and more focus on sustainable tourism practices. This includes efforts for the preservation of natural and cultural heritage, responsible waste management, and the involvement of local communities.

### **Government Initiatives:**

The Italian government, through the Ministry of Cultural Heritage and Activities and Tourism, has a key role in shaping the digital and sustainable tourism landscape. Policies and initiatives have been developed to promote responsible tourism and the adoption of digital technologies.

### **Pandemic and Digital Response:**

In Italy, technologies that support health and safety measures, such as contactless payments, digital health certificates, and online booking systems, have been implemented during and even after the pandemic.

## 7.1. New Tourism Trends

Digital is the least common dominator of the changes taking place in the Italian tourism industry. There are several innovative trends that promise to relaunch the sector and respond to the new needs of consumers, after years of uncertainty and restrictions.

Relatively new and potentially disruptive issues are emerging, such as sustainability and so-called neverending tourism. Experiential services find new life in digital and relaunch the idea of a more authentic and unique Proximity Tourism, capable of safeguarding a heritage of very small local realities, largely suffocated by the growing homogeneity resulting from globalization. There are also important additions from complementary sectors, such as Fintech and Innovative Payments, which contribute to spreading a greater "culture of data" and other collateral benefits. Discover all the main trends in the travel market.

Numerous Italian and international players are riding these innovative trends not only to heal the wounds caused by the pandemic, but also (and above all) for their enormous future potential<sup>7</sup>.

**Neverending Tourism.** Tour operators offer services to broaden the tourist experience before and after the trip, with solutions such as virtual visits to museums or cities, cooking classes or eCommerce platforms for purchasing local products.

**Holiday Working.** More and more smart workers are working remotely in a location other than their own, even far from traditional tourist destinations, which promotes work-life balance and contributes to the enhancement of the territories even in the low season.

**Sustainable Tourism.** On the one hand, more and more travelers are also willing to pay a premium in order to travel sustainably, on the other hand, many accommodation facilities are implementing solutions aimed at respecting the environment.

**Proximity Tourism.** After the pandemic restricted travel, there has been a rediscovery of nearby destinations, with a growth in the market for experiences, especially in the open air.

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<sup>7</sup> [https://blog.osservatori.net/it\\_it/trend-turismo-principali-tendenze-mercato-viaggi](https://blog.osservatori.net/it_it/trend-turismo-principali-tendenze-mercato-viaggi)

## 7.2. Tourism, the situation in Italy<sup>8</sup>

The pandemic, as is well known, has inflicted serious damage and injuries on this sector, perhaps more than on any other, in some cases irreparable. The climate of uncertainty persists, although there are encouraging signs. 2021 was a year of consistent recovery of the world economy and even the Tourism market, although still far from 2019 levels, has resumed growth compared to the previous year.

The recovery of the sector was driven in particular by digital, with hospitality eCommerce in Italy even exceeding pre-pandemic values. According to the numbers of the Digital Innovation in Tourism Observatory, in 2021, the overall Travel market in Italy (online + offline) grew both in the Accommodation component (9.5 billion euros, close to pre-pandemic levels) and in the Transport component (8.5 billion, +33% on 2020 but still far from the pre-Covid 18 billion).

These faint glimmers of light are not enough to erase a more than negative two-year period for Italian tourism. The darkest scenario is that of organized tourism, with tour operators and travel agencies grappling with huge drops in turnover. The data on foreign tourist presences in Italy are also not very comforting: according to ISTAT estimates, in 2020 they decreased by more than 54% compared to the previous year, with a consequent drop in tourist spending, only partially cushioned by domestic tourism. In addition to the sectors of the Travel market, destinations also pay: according to Confesercenti estimates, the great cities of art, the driving force of Italian tourism, and municipalities with a strong historical and cultural vocation record a gap in attendance compared to pre-pandemic periods of more than 65%.

As for tourist flows, the most recent statistics from ISTAT show us that in Italy the recovery of tourism has been consolidated during 2022, although there is still a difficulty for domestic tourism compared to that of foreign origin. Non-resident customers (i.e. foreign tourists) who visited our country, after a drastic drop in 2021 compared to 2019, increased in 2022 to over 196 million stays, still below the levels of 2019 when presences were over 220.6 million. In comparison with other European Union countries, Italy ranks fourth in terms of the number of presences in 2022, equal

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<sup>8</sup> Digital Innovation Observatories of the School of Management of Politecnico di Milano, 2022.

to 14.5% of the presences recorded in the entire European Union in the reference period, behind Spain (16.6%), France (16.3%) and Germany (14.7%).<sup>9</sup>

In the field of technology, digital tourism in Italy is experiencing a phase of slight growth and innovation, with a weak increase in online bookings but with a growing interest in cultural heritage. In fact, during 2023, according to the Ministry of Tourism, only 21% of Italian accommodation facilities were booked on the Internet.

Faced with this context, it is important to give priority to technology and innovation, involving both the public sector, for promotional activities, and the private sector, for example, with regard to the methods of marketing/distribution of the product to draw attention to our uniqueness and stimulate visitor experiences that are as engaging as possible. In this context, in fact, the offer of the Italian market is extremely fragmented into a multiplicity of portals, sites and apps whose effectiveness is still not sufficiently adequate, often disconnected from the real market demand much more dynamic and, above all, with conversion rates far from the potential ones.

Finally, the Italian government's 2023-2027 Tourism Plan has proposed to give top priority to Innovation, providing for the implementation of the process of digitization of both internal and external services to strengthen digital tourism<sup>10</sup>.

### 7.3. The digital travel market.

The answer and resistance to the crisis in tourism, as we have seen, passes through digital. Let's then go into detail about the eCommerce of Italian Tourism, i.e. the transaction deriving from online purchases by end users on sites operating in Italy and offering the service also in Italian.

After years of double-digit growth, 2020 was also an annus horribilis for the digital travel market. In line with the overall market data and statistics, the eCommerce of services related to travel by Italians has suffered a collapse, more marked in the field of Transport than in Hospitality due to a greater resilience of proximity tourism (with owned means of transport). As far as digital intermediation is concerned, OTAs (Online Travel

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<sup>9</sup> <https://rivista.microcredito.gov.it/opinioni/archivio-opinioni/1020-il-settore-del-turismo-in-italia-verso-la-sostenibilit%C3%A0-verde-e-digitale.html>

<sup>10</sup> <https://www.senato.it/service/PDF/PDFServer/BGT/01375440.pdf>

Agencies) have suffered heavy losses, while direct contact channels between customer and supplier have strengthened.

In 2021, Travel eCommerce in Italy started to grow again, reaching 10.8 billion euros (+51% compared to 2020). However, the gap with the pre-pandemic period, when the sector was worth 16.3 billion euros, still remains very wide.

#### **7.4. From Tourism to Digital Tourism<sup>11</sup>.**

From the data and trends analyzed, it emerges that it is impossible to talk about Tourism and Travel without talking about Digital Innovation. When we talk about "digitalization of travel" and digital innovation in tourism, we refer to the whole set of service and process innovations that have an economic-organizational impact on the activity of tour operators.

The competitiveness of the sector in Italy is in fact increasingly influenced by the use of digital technologies, both in the relationship with tourists and in the management of services. Digital Tourism is therefore defined within these areas: the new needs of the tourist, the spatio-temporal extension of the journey, the different modes of interaction between the actors and the integration of experiential tourism services.

*So what are the main digital solutions at the service of Tourism? As in other industries, data valorisation is becoming central in tourism and the cultural sector in order to collect, manage and use data strategically. In this area, cybersecurity and data protection solutions are also emerging, which are now essential for any business. Contactless solutions are also becoming more and more numerous, accelerated above all by the need for social distancing, for example: mobile (Apple Pay, Google Pay) or remote (Pay-by-link) payment options, home automation devices, virtual assistants or self-check-in systems.*

It is not only tourism that has become digital, but also and above all tourists. After rattling off the salient numbers of the Travel market and the main innovations, let's delve into how the so-called "digital tourists" behave, from inspiration to post-trip. After the advent of the pandemic, the journey has become even more digital thanks to the adoption of further innovative solutions, both because the most forward-looking

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<sup>11</sup> Digital Tourism: numbers, trends and market prospects. 2023 © Digital Innovation Observatories - Politecnico di Milano.

players want to seize the opportunities of technology, and because the demand among consumers is changing radically.

The journey of digital tourists includes different channels, online and physical, but it is above all the use of the Internet that is the predominant element in all phases, from the moment of inspiration to the return home.

**Inspiration and search for information** - Mainly on search engines.

**Booking & Purchase** - Accommodation and Transportation Services.

**Activities and services in Travel** - Experiences, mobility.

**Activities carried out on the return** - Sharing of the experience, purchase of products related to the place visited.

## 7.5. Tourism startups

In this context of innovation, startups play an important role. The ecosystem of tourism startups in Italy is lively, even if characterized by problems of financial sustainability and growth difficulties, especially after the hard blow caused by the pandemic. Moreover, although there are success stories both among startups specializing in specific niches and targets (e.g. event trips for millennials), and among those that have been able to respond to the pandemic by leveraging digital (e.g. with neverending tourism solutions such as gamification or eCommerce platforms), the national landscape is still fragmented and limited in terms of internationalization and scalability.<sup>12</sup>

## 8. DIGITAL & SMART TOURISM: SPAIN

### Digitalization Initiatives:

Spain has implemented several initiatives to embrace digitalization in the tourism sector. This includes the development of digital platforms for tourism promotion, the adoption of innovative technologies to improve the visitor experience, and the use of digital marketing tools.

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<sup>12</sup> <https://www.economyup.it/innovazione/digitale-e-open-innovation-2024-quali-le-nuove-sfide-per-impres-e-startup/>

## Destinations

### Intelligent (DTI):

Spain has invested in the transformation of some destinations into Smart Tourist Destinations. This involves the use of advanced technologies such as the internet of things (IoT), sensors, mobile apps, and other digital tools to improve operational efficiency and the visitor experience.

### Environmental Sustainability:

As part of a global trend, Spain has increased its focus on sustainable tourism practices. This includes efforts for the sustainable management of natural resources, heritage conservation and the adoption of environmentally friendly tourism practices.

### Pandemic and Digital Response:

In Spain, there have been efforts to implement technologies that support the safety and health of tourists, such as digital health certificates and the use of apps to trace contacts.

### Government Policies:

The Spanish government, through the Ministry of Industry, Trade and Tourism, has played an active role in promoting digital and sustainable tourism. Policies have been developed to stimulate innovation in the sector and ensure that digitalisation contributes to sustainability.

### Local Tourism:

In Spain, there is a growing interest in promoting local and regional tourism as part of an overall sustainability strategy. This can help to more equitably distribute the positive impacts of tourism, support local economies, and preserve the culture and environment of destinations.

Tourism in Spain has been a key pillar of its economy for decades, contributing significantly to the Gross Domestic Product (GDP) and generating employment for millions of people in the country. With a consolidated leadership worldwide, the Spanish tourism sector has evolved over time, moving from the image of "sun and

beach" to a constant search for quality. Today, however, it faces challenges that require a renewed vision and the adoption of innovative strategies to sustain its success<sup>13</sup>.

Before the arrival of Covid-19<sup>14</sup>, world tourism was experiencing remarkable growth, becoming an important global driver of economic growth and diversification. Data from the World Tourism Organization (UNWTO) indicates that, in 2019, tourism reached 1,500 million international travelers and accounted for 11% of total global GDP.

In Spain, tourism has remained one of the pillars of the economy and an important driver of economic and social development. In 2019, Spain was, for seven consecutive years, the second most visited country in the world after France, registering 83.7 million tourists (which was also the seventh consecutive year of record figures in the country). It was also the second country in the world with the most revenue generated by tourism for the eighth consecutive year, after the United States.

On the other hand, in the same year, Spain ranked first among 140 countries in the Travel and Tourism Competitiveness Index published every two years by the World Economic Forum. He also held this position in 2015 and 2017.

At the same time, the tourism sector has been immersed in a digital revolution that has disruptively influenced all production and consumption processes in the sector. Online bookings already accounted for 50% of total global travel bookings, growing twice as fast as the tourism market as a whole.

Similarly, the mobility revolution has also been mainly digital in nature, leading to an exponential increase in tourism services delivered by mobile devices. The market share of online travel bookings grew from 9% in 2015 to 35% in 2017, a growth of 288% in just two years. At the same time, 83% of global travelers were already traveling with their mobile device, making it an essential element at all stages of the journey.

However, many saw this continued growth in tourism activity as an unchecked threat due to its negative impact on residents, who have been displaced to their cities, and because of its impact on the environment. Thus, we have seen the emergence of

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<sup>13</sup> <https://ibero.news/noticias/hacia-el-futuro-la-estrategia-2030-para-un-turismo-sostenible-en-espana>

<sup>14</sup> Antonio López de Ávila Muñoz, Global Manager, Tourism for Rural Development Programme of the World Tourism Organization (UNWTO)



"tourism phobia" movements in many countries. Groups that, with more or less well-founded arguments, criticized and rejected the tourist activity.

For this reason, sustainability was already considered an essential tool in any tourism development model and was one of the main axes of the Smart Tourist Destination model launched by the Ministry of Tourism through SEGITTUR in 2012. This has made Spain the first country in the world to have a tourism development model and methodology in which Sustainability, in all its facets, has been considered the center of any strategy, as well as Accessibility, combined with Technology and Innovation to implement Governance models based on indicators and data. which would make it possible to achieve and maintain sustainable models over time, respectful of people and the environment ("Smart Tourist Destinations: building the future", SEGITTUR, 2015).

At the moment, profound changes are observed in tourism consumption patterns, where a highly digitized tourist predominates, demanding with the information he consumes, very concerned about the health conditions of destinations and their impact on the environment. And, for their part, brands are increasingly aware that they must align themselves with these principles and not only reduce their environmental impact, but also generate greater ecological value for society.

We are therefore facing a new era of management, planning and investment in green and responsible tourism in which new public policies are needed to accompany this necessary change in model. A tourism model at the service of the social, cultural, economic and environmental development of each of the territories in which the activity takes place. A model that goes from being a voracious consumer of the environment to being a creator of ecological and social capital, a point of reference for other production sectors globally.

**A new Era of Sustainable Tourism is opening up right now.** This new era must be based on a model of respect and enhancement of the ecological and social capital of destinations and on a governance model of effective co-management between the public sector, at all levels, and the private sector. And this model will undoubtedly have to integrate the technology necessary to be able to measure, control and generate trust in the correct application of sustainability policies. And, on the other hand, it must stimulate as much as possible dialogue with local society and the productive ecosystem in order to achieve the necessary social cohesion.

In this sense, if Spain wants to continue to lead tourism activity in the coming years, destinations, companies and tourist boards will be recognized and/or rewarded in the coming years in three ways:

**Governments and institutions that, through new public policies, recognize sustainable development models**, many of which are based on public-private cooperation, and that provide tax incentives for this new model of tourism sustainability (or punish those who do not comply).

**Consumers who are very aware of the social and environmental impact of tourism activity.**

**Existence of companies and institutions that want to collaborate only with those who already work in this line.**

In summary, we can talk about three fundamental principles for implementing leading and sustainable models for the near future:

**The public sector needs to modernise its policies and create** the necessary infrastructure to facilitate the transition to a Paris-compliant economy, encouraging digitalisation, investment in R+D, etc.

**The tourism industry is expected to become the largest generator of green capital in the world.** To get to a "zero emissions" world we need industries that create green capital, that create natural solutions for carbon sequestration (which is the easiest and most viable thing to do). The tourism industry must play this role of value creation, far beyond economic and social generation. We are talking about value creation for the economy as a whole.

**The necessary digitalization of all processes within the company or destinations.** To do this, it is necessary to acquire and analyze the data that helps us achieve our goals and know if our management is in line with the principles and values that we defend and that our customers seek.

**And technology**, without a doubt, will be an essential factor in any strategy based on a sustainable management model. A model in which tourism is not seen as an invasive activity, but as a creator of ecological capital and social cohesion.

In this sense, if we consider technology as the basic tool for the digitization and sustainability of tourism, we see, in recent times, an accelerated convergence of technologies (such as Artificial Intelligence and Machine Learning, 5G communications,

blockchain technology, Greentech and the Internet of Things) called upon to become important allies to manage profound changes in the configuration of the market and tourist territories. These technologies open up a multitude of opportunities to properly manage the reactivation phase of tourism, reinforcing not only the concepts of health safety, but also those of environmental and social sustainability in destinations, so as not to return to certain models of massive tourism development, pre-pandemic and predatory of the environment and local societies (tourismphobia).

Therefore, if even before the pandemic the situation required tourism businesses to adapt technologically and to be able to be competitive in a sustainable way, the context generated by Covid-19 has exacerbated and accelerated this need.

On the other hand, there are different challenges and opportunities depending on the geographical environment in which they are located. Urban destinations and tourism businesses located in cities can benefit from easier access to digital infrastructure and have more opportunities for business partnerships than those located in rural/natural or remote areas. For this reason, there is a need for public policies to invest in the creation of digital infrastructure in rural and sparsely populated areas.

It is a matter of defining the strategy and drawing up a joint action plan that takes into account the following elements: **Define measures and indicators for environmental management and social impact** that include the management of elements such as: energy, water, recycling, waste, circular economy, zero waste policies, mobility, management of forest areas, coasts and marine environments, agriculture and livestock, quality employment, inclusion and accessibility policies, schooling and level of education, cultural activity, health, etc.

**Digitization of information.** Have a digital tool in which the data of all the activities carried out at the destination are processed and displayed. This data must be cross-referenced with information from all sectors: tourism, transport, urban planning, mobility, culture, health, economy, etc.

**Specific measures to reduce and offset CO2 emissions.** Measuring, reducing and offsetting CO2 emissions is already an obligation for many companies. The European Union aims to drastically reduce emissions in member countries by 2030 and, to this end, plans to develop a policy of high taxation for polluting companies. And so it will be for companies and tourist destinations.

*In short, in order to accelerate the reactivation of the sector in Spain and ensure its leadership and future profitability, it is necessary to design a very clear "data-driven" management strategy, hand in hand with technology, which considers all levels of companies and territories. Only in this way will we continue to lead tourism activity in the world in the coming years<sup>15</sup>.*

## 9. DIGITAL & SMART TOURISM: TURKEY.

**Digitalization initiatives:** Turkey has made efforts to integrate digital technologies into its tourism sector. This includes the adoption of digital platforms for information dissemination, online booking systems, and the use of digital marketing strategies to promote tourist destinations.

**Smart Destination Strategies:** There is a global trend towards smart destinations, which leverage technology to improve the overall visitor experience. Turkey has been exploring the concept of smart tourism destinations, incorporating digital innovations to improve accessibility, connectivity, and sustainability.

**Sustainability Practices:** The importance of sustainability in tourism has been recognized globally, and Turkey is no exception. Efforts are being made to promote sustainable tourism practices, including natural and cultural heritage conservation, waste management, and community involvement.

**Government Initiatives:** Government bodies, such as the Ministry of Culture and Tourism in Turkey, play a crucial role in shaping the digital and sustainable tourism landscape. Policies and initiatives are being developed to

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<sup>15</sup> Antonio López de Ávila Muñoz, Global Manager, Tourism for Rural Development Programme World Tourism Organization (UNWTO)

encourage responsible tourism and the integration of digital technologies.

**Pandemic and Digital Response:** Turkey, like many other countries, has increased its focus on technologies that support health and safety measures, such as contactless payments, digital health certificates, and online booking systems of all kinds.

Turkey has a favorable environment to promote the Travel & Tourism (T&T) sector, but it faces several sustainability challenges. The travel and tourism sector is an important economic pillar in Turkey. It contributes 11% to the country's gross domestic product (GDP) and 9.2% to total employment.<sup>16</sup>

In 2019, tourism generated 2.6 million jobs in Turkey, boosting regional and rural development. By the end of 2023, international tourism demand is expected to fully recover. However, tourism in Turkey has been hit hard by the COVID-19 pandemic. Official figures indicate a 69% drop in visitors and a 65% loss in tourism revenue in 2020 compared to the previous year.

In this context, Turkish T&T (travel & tourism) stakeholders have had to re-evaluate the sector's development and the country's competitiveness strategies to stimulate growth, including rethinking the future of tourism and basing future growth on sustainability. The Turkish Ministry of Culture and Tourism has already initiated this change, revising its strategy in 2020 in light of the new developments caused by the COVID-19 pandemic by focusing on competitiveness and sustainability. The government aims not only to create a tourism sector that is competitive, sustainable and inclusive, including by improving the environmental performance of the sector, but also to enable the use of tourism as a tool for regional development and ensure that all visitors have full access to tourism products and services. To this end, the Ministry of Culture and Tourism is collaborating with various local, national and international stakeholders and academic institutions to redesign sustainable tourism policies and initiatives in Turkey.

A better understanding of the strengths and challenges of the T&T economy, including those related to T&T sustainability, can help inform strategies such as the Tourism Master Plan. The World Economic Forum's Travel & Tourism Development Index (TTDI)

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<sup>16</sup> Leading the development of travel and tourism in Türkiye. CARTE BLANCHE. September 2023. World Economic Forum.

2021 is a useful tool to help identify the strengths, challenges and opportunities for improvement of T&T in Turkey. The results of the 2021 index underlined the need for the T&T sector to rebuild in an inclusive, sustainable and resilient way after the pandemic, so that the sector can maximise the benefits for local communities. In addition, the TTDI has three pillars specifically focused on T&T sustainability: Environmental sustainability; resilience and socio-economic conditions; and T&T Demand Pressure and Impact.

Despite the negative impact of the COVID-19 pandemic, TTDI results indicate that Turkey's ability to enable the development of T&T has improved in recent years, with its index rising from 49th place in 2019 to 45th in 2021. Turkey outperforms the upper-middle-income countries that are its global economic counterparts and approaches the average of the Mediterranean basin economies, to which Turkey belongs.

### **9.1. The challenges of T&T sustainability in Turkey<sup>17</sup>**

The results of the Travel & Tourism Development Index (TTDI) indicate that Turkey faces several challenges when it comes to T&T sustainability; Addressing them will be crucial for the long-term competitiveness and development of the sector.

These challenges are mostly related to environmental sustainability, tourism demand management, and the need to improve the T&T sector's capacity to drive inclusive economic development.

### **9.2. Environmental sustainability<sup>18</sup>.**

The long-term prosperity of the T&T sector in Turkey depends on addressing and building resilience in the face of climate change, pollution and environmental degradation. The country has a diverse and rich ecosystem, exemplified by a large number of ecoregions (13th), which contribute to generating a strong demand for nature-based tourism, as indicated by the increasing number of online searches for the country's natural assets and related activities (from 38th place in 2019 to 21st in 2021). However, by ranking 102nd, the economy scores below average for the TTDI's environmental sustainability pillar. As a result, the economy's destinations and its tourism-generating natural resources are most at risk. For example, Turkey scores more

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<sup>17</sup> Leading the development of travel and tourism in Türkiye. CARTE BLANCHE. September 2023. World Economic Forum.

<sup>18</sup> Leading the development of travel and tourism in Türkiye. CARTE BLANCHE. September 2023. World Economic Forum.

than 20% below the index average for water stress, with most of its Aegean and Mediterranean coasts under high stress and at medium to high risk of water depletion. This is a significant concern as climate change and human development put pressure on the freshwater resources of the country's popular beach destinations. Deforestation, drought, wildfires, and air pollution (which exceed World Health Organization recommendations) create additional risks for nature tourism. TTDI results indicate that deforestation has accelerated in recent years (from 41st place in 2019 to 43rd in 2021). Below-average perceptions of nature protection (98th) and the impact of businesses on the environment and nature (82nd) may also indicate scope for improving nature conservation efforts. Inclusive development and demand management The TTDI highlights that the use of the potential of the T&T sector to achieve widespread economic benefits can be further improved. Excessive growth in tourism can lead to problems such as overcrowding, damage to resources, straining infrastructure, rising housing prices, and reduced livability for residents. If left unaddressed, such issues can lead to a backlash from residents against tourism, reduce visitor satisfaction, and reduce the overall attractiveness of the destination.<sup>17</sup> Turkey's TTDI ranks 103rd for the demand pressure and impact pillar, indicating risks of overcrowding and demand volatility. The country is grappling with challenges such as high seasonality (96th), short length of stay (65th) and risks of overcrowding, with perceptions suggesting the need for better geographical dispersion (96th) and a reduction in urban centre crowding (80th). For example, while international tourist arrivals increased by more than 60% from 2010 to 2019, much of the sector's concentration resides in a few regions. Antalya and Istanbul alone account for nearly 50% of all tourists and 80% of international visitors, leading to a concentration of tourism infrastructure, with these destinations occupying 48% of hotel beds.

Turkey also scores below average for the pillar of resilience and socio-economic conditions (77th). Challenges such as the workforce's low perception of equal opportunities (100th), gender inequality (59th), workers' rights (83rd) and above-average rates of young people not in employment, education or training (86th) reduce the T&T sector's access to skilled and productive labour, reducing the sector's dynamism and resilience to potential future shocks.<sup>19</sup> In particular, The nation's need to increase the participation of its female workforce is evident. with women accounting for only 23.1% of employment in the T&T sector, far below the G20 average of 46.4%.<sup>20</sup> As a result, the sector is deprived of an important source of labour, while simultaneously limiting its potential for socio-economic development. Support for micro, small and medium-sized enterprises (MSMEs) is also key to ensuring an inclusive and resilient T&T

sector. Most T&T-related businesses are MSMEs and therefore do not have the means to survive prolonged declines in tourism demand and closures, making them disproportionately at risk from the impact of headwinds such as COVID-19.

### 9.3. Efforts to address T&T's sustainability challenges<sup>19</sup>

As already mentioned, the Turkish government has integrated T&T's sustainable development into its Tourism Master Plan 2028, launching several strategies and initiatives that aim to address T&T's sustainability challenges. Turkey is home to the third largest number of Blue Flag beaches in the world, demonstrating a focus on the conservation of natural resources. Beaches certified by the Blue Flag recognition system, managed by the Foundation for Environmental Education, meet strict environmental standards such as regular water analysis for health risks and protection of the natural environment.<sup>22</sup> To help ensure that the benefits of tourism development are shared more widely, the Tourism Promotion and Development Agency of Turkey (TGA) has established the Promotion and Development Program. The initiative includes participants from government, the private sector, academia and civil society and aims to improve the tourism potential of all 81 provinces of Turkey, ensuring more effective promotion of destinations nationally and internationally to increase the digital visibility of destinations and strengthen branding processes through synergy in provincial promotion.

To help address labor shortages, promote youth employment, and enhance inclusive development, the Ministry of Culture and Tourism and the Ministry of National Education have signed a protocol requiring students studying in the accommodation and travel services, food services, and entertainment sectors to undertake training and internships in T&T enterprises.<sup>23</sup> The Tourism Agency of Turkey, it also launched the Sustainable Tourism Program. Designed in partnership with the Global Sustainable Tourism Council (GSTC), this initiative encourages T&T accommodations, travel agencies, tour operators and destinations to obtain sustainable tourism verification and certification, which covers the internationally recognised standards for sustainable tourism set by the GSTC.

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<sup>19</sup> Leading the development of travel and tourism in Türkiye. CARTE BLANCHE. September 2023. World Economic Forum.



As part of the multi-phase implementation of the program, all accommodation facilities in Turkey should have obtained the first-stage sustainable tourism verification, which means that they will comply with 30% of the determined standards, by the end of 2023.

The second phase is expected to be completed in 2025, with accommodation facilities meeting 70% of the standards and finally 100% of the standards met by the facilities by the end of the third phase in 2030. Following this implementation, it is expected that all of Turkey's approximately 22,000 hospitality properties will monitor, measure, improve and manage their sustainability performance, with the data provided integrated into dashboards that will allow policymakers, investors and businesses to monitor and compare sustainability performance.

As Turkey's T&T sector recovers, the use of big data will help guide the nation towards a sustainable future in tourism. The recovery of Turkey's T&T sector from COVID-19 and its vital role in the economy underscore the need for sustainable development. The country's policymakers have recognized this in the Tourism Master Plan 2028 and initiatives such as Turkey's Sustainable Tourism Program. Big data provides new solutions to measure and monitor the economic, social and environmental impacts of T&T, helping to inform policies and maximise the sector's potential to generate prosperity for the country. However, realising this potential requires more attention and investment in areas such as ICT infrastructure, skills, regulatory frameworks and data privacy.

In addition, the complex and fragmented nature of tourism and the diversity of the data ecosystem require continuous multi-stakeholder collaboration. Policymakers need to work with multiple agencies, companies, international organizations, academia, and local communities to create and align T&T's sustainability strategies and efforts to harness the full potential of big data.

## 10. Smart & Sustainable Tourism – Challenges and Opportunities.

To better understand the situation of digitalization in the tourism sector in each country analyzed (Italy, Spain and Turkey), we have identified 10 important aspects for the integral assessment of the challenges and opportunities for Smart and sustainable tourism in Italy, Spain and Turkey. These are:

1. Dependence on seaside tourism (diversification of tourism),
2. Market dependence (market diversification),
3. Seasonality and urban saturation (mass tourism),
4. Outdated holiday destinations (innovative and resilient tourism),
5. Potential of rural tourism (eco-sustainability),
6. Digital Divide and Working Conditions (Digital Training),
7. The challenges of digitalisation (innovative channels),
8. Emerging technologies (technological innovation),
9. Public-Private Sector Coordination (synergies and partnerships),
10. Disparities in digital innovation (funding seeking).

### 10.1. ITALY

#### a. Dependence on the sun and seaside tourism:

Italy has a significant reliance on sun and beach tourism, especially along its coastal regions. Diversifying the tourism offer beyond this segment is crucial for sustained growth.

#### b. Market Dependence:

The Italian tourism sector is heavily dependent on key markets such as the United States, Germany and the United Kingdom. Economic and geopolitical factors in these regions can have a significant impact on the Italian tourism industry.

#### c. Seasonality and urban saturation:

Seasonal fluctuations and urban saturation, particularly in cities such as Rome and Venice, are major challenges in Italy. The management of these aspects is fundamental for a balanced and sustainable tourism model. Online bookings have greatly facilitated waiting times and consequently saturation during peak seasons.

**d. Outdated holiday destinations:**

Italy is facing challenges in maintaining the competitiveness of historic tourist destinations. Conservation efforts and innovation are needed to keep these sites attractive and relevant, many of which are experiencing obvious deterioration due to mass tourism.

**e. Potential of rural tourism:**

Despite the growth of rural accommodation facilities, Italy must work to establish rural tourism as a viable economic alternative, contributing to the development of inland territories and not only coastal areas. Food and wine tourism is also an important resource for local development.

**f. Digital Divide and Working Conditions:**

SMEs in Italy may also face challenges in the digital space, impacting visibility and the ability to meet the demands of connected customers. Attention to digital training and working conditions, especially for women, is crucial.

**g. The challenges of digitalization:**

While customer interactions may show high levels of digitalization, Italy still faces major challenges in terms of technology capital, investment in R&D, and workforce readiness.

**h. Emerging Technologies:**

Lagging adoption of emerging and expanding technologies can hinder innovation in the Italian tourism sector. Encouraging the incorporation of technical profiles is critical to advancement.

**i. Public-Private Sector Coordination:**

Weak coordination between the public and private sectors can hinder the implementation of technological solutions in Italy's day-to-day tourism business. The Ministry of Tourism for this 2024 intends to strengthen strategic alliances<sup>20</sup> in the tourism sector throughout the country.

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<sup>20</sup> <https://www.ministeroturismo.gov.it/wp-content/uploads/2022/07/Piano-Performance-Def-6.6.22.pdf>

**j. Disparity in Digital Innovation:**

It is clear that large companies in Italy are driving digital innovation, while micro and small enterprises face challenges due to low digital knowledge and funding. It is important to promote the digital training of Italian tourism SMEs, in order to reduce digital disparities.

**10.2. SPAIN**

**a. Dependence on the sun and seaside tourism:**

Spain is facing a heavy reliance on sun and beach tourism, which is highly successful but needs to be strengthened to be more efficient in the face of the possibility of lost profit margins.

**b. Market Dependence:**

The heavy dependence on certain markets such as the United Kingdom, France and Germany, which account for more than 50% of international visitors, exposes Spain to the risks associated with economic or geopolitical changes in these countries.

**c. Seasonality and urban saturation:**

The high seasonality of consumption of the Spanish tourist offer, derived from the dependencies mentioned above, represents a challenge. In addition, the saturation of urban destinations due to the constant growth of tourist construction could negatively affect the tourist experience.

**d. Outdated holiday destinations:**

The obsolescence of some pioneering tourist destinations affects Spain's competitiveness in the sector. Conservation and innovation are essential to maintain the attractiveness of these places.

**e. Potential of rural tourism:**

Despite the increase in rural accommodation over the last 15 years, rural tourism in Spain is still struggling to establish itself as a viable economic alternative for many inland territories.

**f. Digital Divide and Working Conditions:**

The digital divide, which excludes many SMEs from tourism activity, either because they are not visible in the digital space or because they are unable to meet the demands of the new connected customer, is a challenge. In addition, the increasing precariousness of working conditions in the sector, which particularly affects women, is a growing concern.

**g. The challenges of digitalization:**

Although customer interactions show high levels of digitalization, Spain faces challenges in terms of technology capital, investment in R+D, and workforce readiness.

**h. Emerging Technologies:**

Failure to adopt emerging and expanding technologies could hamper innovation in the Spanish tourism sector.

**i. Public-Private Sector Coordination:**

Lack of coordination between the public and private sectors can hinder the proper implementation of technological solutions in the day-to-day tourism business.

**j. Disparity in Digital Innovation:**

Also in Spain, it is observed that the companies most committed to digital innovation tend to be large and multinational, while micro and small enterprises lag behind due to lack of knowledge and/or funding.

### 10.3. TURKEY

**a) Dependence on the sun and seaside tourism:**

Turkey, like Spain and Italy, relies heavily on sun and beach tourism, particularly along the Turkish Riviera. Efforts to diversify tourism offerings are essential for long-term sustainability.

**b) Market Dependence:**

Turkey's tourism sector depends on key markets, including Russia, Germany and the United Kingdom. Economic and geopolitical factors in these regions can have a significant impact on Turkey's tourism industry.

**c) Seasonality and urban saturation:**

Seasonal fluctuations and urban saturation, especially in cities like Istanbul, are challenges shared with Spain and Italy. The management of these aspects is fundamental for a balanced and sustainable tourism model.

**d) Outdated holiday destinations:**

Turkey faces challenges in maintaining the competitiveness of historic tourist destinations. Conservation efforts and innovation are needed to keep these sites attractive and relevant.

**e) Potential of rural tourism:**

Similar to Spain and Italy, Turkey needs to explore and promote its rural tourism potential, contributing to the economic development of inland territories.

**f) Digital Divide and Working Conditions:**

SMEs in Turkey may face challenges in the digital space, impacting visibility and the ability to meet the demands of connected customers. Attention to working conditions, especially for women, is crucial.

**g) The challenges of digitalization:**

While customer interactions may show high levels of digitalization, Turkey, like Spain and Italy, faces challenges in terms of technology capital, investment in R&D, and workforce readiness.

**h) Emerging Technologies:**

Lagging adoption of emerging and expanding technologies can hinder innovation in the Turkish tourism sector. Encouraging the incorporation of technical profiles is critical to advancement.

**i) Public-Private Sector Coordination:**

The lack of coordination between the public and private sectors can hinder the implementation of technological solutions in Turkey's day-to-day tourism business.

**j) Disparity in Digital Innovation:**

Similar to Spain and Italy, large companies in Turkey are at the forefront of digital innovation, while micro and small enterprises face challenges due to knowledge and financing constraints.

**11. Tour Operators Vs. Tourism Enterprises: Objectives and Needs.**

Finding the most suitable tools to achieve professional goals in the tourism sector can prove to be a complex challenge. An in-depth analysis of several variables is required, including the capacity and internal operational structure, the dynamics of one's tourism ecosystem, including other actors and competitors, potential collaborations, overall local and regional strategies and, last but not least, the needs of the consumer.

Obstacles such as financial or regulatory limitations, coupled with limited digital skills or capabilities, can make it difficult for professionals to fully understand the potential benefits and identify the best approach to kickstart the development of digital solutions. In some cases, the cost of the solutions will certainly be a key element in deciding which tools to adopt.

It is important to emphasize that each case must be evaluated individually to identify the most effective solution. Therefore, we only provide a brief overview of the different areas outlined as part of the methodology and implementation of digital tools to achieve various general objectives, but we want to make a distinction between national objectives and needs and those common in Italy, Spain and Turkey.

**11.1. National Objectives and Needs of Tour Operators**

Tour operators in Italy, Spain and Turkey face professional objectives and needs that reflect the specificities of each country and for this reason require distinct approaches. The following are some of the goals and needs in these three contexts:

### **11.1.1. Italy.**

In Italy, the priority is the promotion of rich cultural heritage through collaborations with cultural institutions, training on cultural marketing strategies and the adoption of digital technologies for effective promotion. Environmental sustainability is another key focus, with the need for sustainability training, access to funding for eco-friendly projects, and participation in green initiatives. The promotion of food and wine experiences requires collaborations with local producers, development of food and wine itineraries and specific training.

### **11.1.2. Spain.**

In Spain, the diversification of the tourist offer is at the heart of efforts to go beyond traditional mass tourism. Tour operators seek to understand the changing needs of travelers through in-depth market analysis, developing new tourism experiences, and adopting strategies to diversify their offerings. The management of urban destinations, often plagued by saturation, requires specific plans and close collaborations with local authorities. Technological innovation is a key component in improving the tourism experience, requiring investment in digital solutions, training on emerging technologies, and the adoption of digital management platforms.

### **11.1.3. Turkey.**

In Turkey, geographical diversification is a primary objective to expand the tourist offer beyond the traditional destinations. Tour operators engage in in-depth market analysis, development of new itineraries, and collaborations with local authorities to promote emerging destinations. Cultural and historical tourism is particularly relevant, requiring collaborations with cultural entities, specific marketing strategies and training on the management of historical attractions. Innovation in hospitality is a key element in improving the provision of hotel services, with the need for staff training, adoption of technologies in hospitality and participation in service improvement programs. Promoting eco-tourism requires involvement in sustainability projects, obtaining eco-friendly certifications, and targeted training on eco-tourism practices.

Here is a relational outline of needs, objectives, challenges and strategies for tour operators, based on national priorities:



**Relational Table – Smart Tourism Italy, Spain, Turkey**

COUNTRY	SCOPE	NEEDS	OBJECTIVES	CHALLENGES	STRATEGIES
ITALY	Cultural heritage	Collaborations with cultural institutions, training on cultural marketing techniques, adoption of technologies for promotion.	Enhance and promote Italy's rich cultural heritage (historical sites, museums and cultural traditions).	Global competition requires creative and distinctive cultural promotion.	<b>Collaborations with established cultural institutions</b> , for the organization of cultural events and the innovative use of technology to create immersive experiences.
	Environmental Sustainability	Training on sustainability, access to finance for sustainable projects, adoption of green initiatives.	Introduce eco-friendly practices in tourism activities.	The integration of sustainable practices without compromising the tourist experience.	<b>Adoption of eco-friendly policies, active involvement in conservation projects</b> , and clear communication of sustainable initiatives to visitors.
	Gastronomy	Collaborations with local producers, development of food and wine itineraries, training on sommellerie and typical cuisine.	Promote Italian culinary diversity.	Differentiate food and wine offerings in an international market.	<b>Collaborations with renowned chefs, the development of personalized food and wine itineraries</b> and the integration of technologies to tell unique culinary stories.
	Digitalization	Digital training, online booking platforms, access to digital management solutions.	Improve online presence and operational efficiency.	Digital overload and the need to preserve the authenticity of the experience.	<b>Gradual implementation of technologies, training for operators on digital management</b> and the strategic use of online platforms.
SPAIN	Diversification of Offerings	Market analysis, development of new tourist experiences, training on the diversification of the offer.	Expand the tourist offer beyond sun and beach tourism.	Go beyond the image of a destination focused on the sun and beach.	<b>Research of new tourist attractions, development of cultural and sporting experiences</b> , and partnerships with specialized tour operators.
	Urban Destinations	Urban tourism management plans, collaborations with local authorities, promotion of alternative routes.	Manage the growing tourist influx in Spanish cities.	Tackling tourist congestion in major cities.	<b>Sustainable urban planning, promotion of alternative routes</b> , regulation of tourist rentals to preserve the city space.
	Regional Promotion	Regional marketing strategies, collaborations with regional authorities, training on new destinations.	Enhancing lesser-known regions.	Balance the promotion of established destinations with the development of lesser-known regions.	<b>Specific marketing campaigns for less touristy regions</b> , supporting regional cultural events and collaborations with local influencers.

	<b>Technological Innovation</b>	Investments in digital solutions, training on emerging technologies, adoption of digital management platforms.	Adopt technologies to improve the tourist experience.	Adopt new technologies without losing the authentic appeal.	<b>Investments in technological solutions that improve accessibility and experience, development of customized tourism apps and digital training for operators.</b>
<b>TURKEY</b>	<b>Geographical Diversification</b>	Regional market analysis, development of new tourist itineraries, collaborations with local authorities.	Promote destinations outside the traditional destinations.	Make destinations beyond Istanbul and the Turkish coast attractive.	<b>Analysis of the tourism potential of less explored regions, promotion of unique experiences, collaborations with local authorities for infrastructural development.</b>
	<b>Cultural and Historical Tourism</b>	Collaborations with cultural institutions, cultural marketing strategies, training on the management of historical attractions.	Enhance Turkey's historical and cultural sites.	Compete with other historical destinations in the Mediterranean.	<b>Enhancement of historical sites, creation of thematic itineraries, involvement of archaeologists and historians in tourism initiatives.</b>
	<b>Innovation in Hospitality and Digitalization</b>	Staff training, adoption of digital technologies in hospitality, participation in service improvement programs.	Improve hotel services and hospitality.	Raise the standards of hospitality without losing the authentic atmosphere.	<b>Service-oriented staff training, gradual adoption of digital technologies in hospitality, and promotion of local stay experiences.</b>
	<b>Promotion of Eco-Tourism</b>	Involvement in sustainability projects, eco-friendly certifications, training on eco-tourism practices.	Develop and promote eco-tourism in Turkey.	Integrate sustainable practices in a context of rapid tourism development.	<b>Active involvement in environmental conservation projects, adoption of eco-friendly certifications, transparent communication of sustainable practices.</b>

This relational analysis is the result of the arduous comparison between the promoters of the Marcopolo project, Ruga Travel and BVB together with the tour operators in the member countries. Each Strategy formulated here is linked to the objective identified on the basis of the needs and challenges to be faced in each country. Many strategies are common and can be applied in the three countries. This table generated a rich analysis and an interesting exchange of criteria to steer the course towards smarter and more sustainable tourism in Italy, Spain and Turkey.

In this sense, below we formulate the strategies that we believe are most relevant to promote digital and sustainable tourism:

### **11.2. Digitalization of Tour Operators and Accommodation Facilities.**

The main focus is on software solutions that support more efficient asset management. However, as can be seen from the best practices collected, developing partnerships with providers (several mobile apps), accommodation facilities can also go further, for example by offering soft transport solutions, finding solutions to avoid food waste or encouraging participation in sustainable tourism experiences.

### **11.3. Promotion of local products.**

The promotion of local products plays a crucial role in the development of digital and sustainable tourism, as it contributes to the harmonious integration of cultural authenticity, environmental sustainability and digital innovation. Not only does it improve the tourist experience, but it also supports environmental sustainability and the socio-economic development of local communities. This synergy between tradition, digital innovation and sustainability is essential to shape a more conscious and respectful tourism.

### **11.4. Promotion of slow and sustainable tourism.**

Promoting slow and sustainable tourism can play a key role in boosting digital and sustainable tourism, striking a balance between authentic exploration, cultural preservation, and adopting environmentally friendly practices. This tourism philosophy aims to foster a deeper connection with destinations and reduce the negative impact on the environment.

### **11.5. Promote social inclusion.**

Overall, the partnership found that online platforms and applications, along with other digital tools or solutions aimed at traditional users, pay very little attention to accessibility and social inclusion. Therefore, they are less attractive to customer segments with disabilities or reduced mobility. Users with special needs should study tailor-made solutions and certainly do not have the same range of opportunities available to them when it comes to using digital tools to find sustainable tourism experiences that suit their needs. Therefore, the inclusion of functionalities that support disadvantaged groups or people with disabilities or mobility problems can bring competitive advantages, since up to 15% of the European population reports a disability of some kind and the current digital offer for this target group is very limited.

## 11.6. Promotion of cultural heritage

Promoting cultural heritage is an effective strategy for the development of smart and sustainable tourism, as it combines the preservation of cultural roots with the adoption of innovative technologies such as augmented reality (AR) and virtual reality (VR), both of which offer immersive visitor experiences, enriching the understanding of cultural sites and stimulating visitors' interest. Accessibility and inclusiveness also become priorities in this strategy, through the use of technologies that allow people with disabilities to digitally access cultural places, promoting tourism open to all.

**Promotion through digital platforms** and social media combined with the digitalization strategy, leveraging engaging content to tell fascinating stories related to cultural heritage. The digitization of museum collections, through virtual tours and online access, fosters the democratization of culture, allowing people to explore artworks and artifacts from anywhere in the world.

Therefore, involving the public in heritage preservation through interactive digital platforms creates a more direct connection between people and cultural heritage, fostering active participation.

## 11.7. Smart Tourism & Circular Economy Principles

The adoption of the circular economy in the context of smart and sustainable tourism can bring significant benefits, promoting efficient use of resources, reducing environmental impacts and creating more resilient development models.

The circular economy focuses on the responsible management of resources. This involves reducing waste through practices such as recycling, reuse, and minimizing single-use packaging. Practices such as implementing smart monitoring systems for water, energy, and waste management can help optimize resource use, reducing the overall environmental impact of tourism activities. There are examples of good practice in this area in the Best Practices Collection.

The strategy aims to promote tourism based on the economy of use rather than purchase. For example, platforms for sharing means of transport, such as bicycles and electric vehicles, foster a more sustainable approach to tourist mobility. This reduces the need for asset ownership and contributes to more efficient resource management.

Finally, technological innovation plays a key role in the implementation of the circular economy in smart tourism. Digital solutions such as sharing platforms, sustainable asset management apps, and smart tracking systems can facilitate the adoption of circular practices, improving efficiency and reducing negative impacts.

### 11.8. Creation of Partnerships and Synergies

The creation of synergies and partnerships in the digital and sustainable tourism sector translates into a positive impact on multiple levels. From the exchange of knowledge and resources to the expansion of networks and access to finance, this collaboration presents itself as an interesting strategy to shape a more conscious, innovative and harmonious tourism future with the surrounding environment.

First and foremost, the key aspect of this type of collaboration lies in the sharing of knowledge and resources. Different organizations bring unique expertise and specific resources to the table, allowing for mutual enrichment. Collaboration can range from sharing data and information to jointly implementing projects and initiatives, as is the case with this project. This creates a continuous learning environment where organizations can benefit from each other's best practices and specialized expertise, contributing to collective and sustainable growth.

Another crucial benefit is the expansion of networks and connections. Collaboration between public and private bodies in the sector opens doors to new opportunities for partnerships, both locally and internationally. These connections can lead to an increase in the flow of tourists, stimulating local economies and promoting the diversification of tourism offerings. The strength of established alliances fosters the creation of a more resilient tourism ecosystem, capable of addressing common challenges and seizing emerging opportunities in the digital context.

In addition, the creation of synergies facilitates access to funding and resources, collaborating with other bodies to access public and private entities. This helps to support the implementation of ambitious, cutting-edge initiatives that may be beyond the capabilities of a single body.

### 11.9. Environmental sustainability.

Sustainability involves reducing the environmental footprint of tourism. For example, the design of modular and durable tourism infrastructure, which can be adapted and repaired, promotes longevity and sustainability. The renunciation of excessive consumption practices in favor of business models that value the sustainable use of resources can help mitigate negative impacts on the environment, but from the point of view of Smart and Sustainable tourism, digital tools play a fundamental role. A key element is the ability to plan sustainable trips through online platforms and specialized apps, which allow travelers to access itineraries that include environmentally friendly transportation options, eco-friendly accommodations, and environmentally friendly activities. They also promote environmental awareness, informing travelers about the impacts of their travel choices and suggesting sustainable behaviors such as reducing waste and saving energy.

## 12. Methodology for Identifying Good Practices in Sustainable Tourism.

Part of the project involves the collection of Best Practices of digital/SMART and sustainable tourism.

To do this, partners researched practices related to their immediate local and regional tourism ecosystems, but also at the national level.

Turkey's partner BVB developed a structure, selection criteria and a model for the practices and received feedback from Marco Polo srls and Ruga Travel Groups S.L.. All three partners identified a minimum of 10 practices each, which are now available on the project website (<https://digital2smarttourism.com>) in 4 languages (EN, IT, TR, ES).

The practices are available as feeds and for download, they will be used as tools for potential transferability of the practice. The criteria used to identify Good Practices in sustainable tourism in Italy, Spain and Turkey were:

**+ Practices can also address social inclusion issues** such as accessibility and social integration.

**+ Practices that are considered as tools to support the development of the tourism ecosystem** (projects/practices that promote sustainable behaviours and address the impact of climate change, education and training activities, community events, etc.).

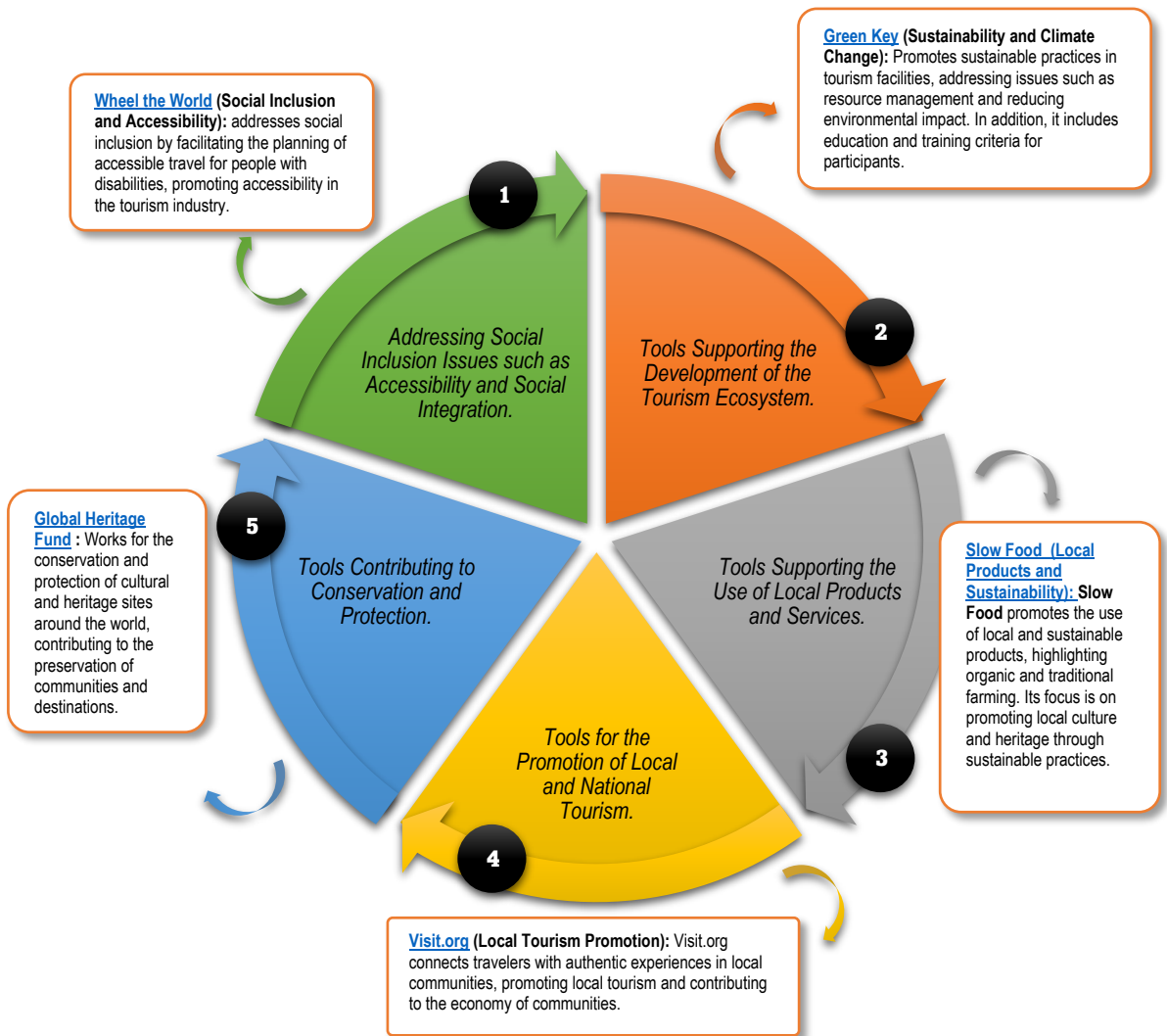
**+ Practices that include tools to support the use of local products and services** to promote culture, local heritage and sustainable products (e.g. supporting organic and sustainable farming, the use of traditional knowledge for production, etc.)

**+ Parts that include tools for the promotion of local and domestic tourism** against the transfer of places to tourists.

**+ Practices that are considered as tools that contribute to the conservation and protection of communities, sites and destinations.**

The partnership paid particular attention to the interoperability of tools and how stakeholders can cooperate to build smart digital tourism ecosystems.

## Criteria for the Identification of Good Practices



Source: Own Processing, 2023

A good practice in sustainable tourism can be classified as such if it meets at least one of the 5 criteria listed above. The chart depicts concrete examples for each category. This makes it easy to apply the methodology and identify BPs.



### **13. Digital tools available.**

This section of this paper looks at the types of digital tools available and how they contribute to making tourism destinations more sustainable by supporting businesses, tourism organisations, educators and other stakeholders in the tourism ecosystem.

There are a vast number of different tools, however, most of them can be described below:

#### **13.1. Online Planning & Booking Platforms:**

These platforms allow travelers to plan and book their experiences directly online, connecting visitors to local businesses and reducing reliance on intermediaries. They help to promote local businesses and improve the visibility of sustainable offerings.

#### **13.2. Tourism Experience Management Systems:**

These systems allow tour operators to efficiently manage the experiences offered, customizing the offer according to the customer's needs. They reduce the environmental impact through an optimized management of the tourist flow and resources.

#### **13.3. Responsible Tourism Applications:**

Responsible tourism apps inform visitors about sustainable practices and promote responsible behavior. They provide information on environmental and cultural conservation, encouraging greater awareness while traveling.

#### **13.4. Digital Marketing Platforms:**

These platforms promote sustainable tourism destinations through online channels and social media. They help raise awareness of eco-friendly initiatives and attract tourists interested in sustainability.

#### **13.5. Tourism Resource Management Systems:**

These systems monitor the use of tourism resources and optimize distribution to ensure sustainable management of tourist attractions and services. They help prevent overcrowding and negative impacts on the environment.

### **13.6. Tourism Data Analysis Tools:**

Data analytics tools provide in-depth insights into visitor behavior. They allow for more effective planning and sustainable management of resources through understanding travel patterns and tourists' preferences.

### **13.7. Online Training Platforms:**

These platforms offer courses and educational resources on sustainable tourism practices. Aimed at businesses, tour operators and other industry professionals, they help promote the awareness and skills needed to adopt sustainable practices.

### **13.8. Environmental Quality Management Systems:**

These systems help tourism companies obtain environmental certifications by demonstrating a commitment to sustainability. They improve the reputation of businesses and help set higher standards for the industry.

### **13.9. Collaboration and Resource Sharing Tools:**

These tools facilitate collaboration between tourism businesses and organizations, optimizing the use of resources and improving the overall efficiency of the sector. They promote the sharing of best practices and cooperation for common goals.

### **13.10. Feedback & Review Platforms:**

These platforms allow users to share experiences and feedback. They encourage businesses to improve their practices, adopt more sustainable approaches, and provide users with authentic information to make informed decisions.

The integration of these digital solutions contributes to improving sustainability in tourist destinations by actively involving businesses, tourism organisations and other stakeholders in the tourism ecosystem.



## 15. Operators in the Tourism & Training Sector.

Training in digital technologies emerges as a crucial element for tour operators in the dynamic and increasingly interconnected context of the sector. This need is not simply an adaptation to the trends of the moment, but represents a fundamental investment in the future of sustainability and efficiency in the tourism industry.

First, the increasing ubiquity of digital technologies has fundamentally changed the way travelers plan, book, and live their experiences. Tour operators need to fully understand the digital landscape to remain relevant and competitive. Training in digital tools provides operators with the skills needed to successfully navigate online platforms, social media, e-commerce, and other tools that drive interaction with potential customers.

Another critical aspect is the ability to use data strategically. Digital technologies generate a vast amount of data that can be leveraged to better understand customer preferences, tailor service offerings, and predict market trends. Training in data analysis allows tour operators to translate this information into concrete actions, improving the personalization of offers and increasing customer satisfaction.

Sustainability is a central theme and digital training plays a key role in this context. The adoption of digital tools allows operators to implement more sustainable business practices, reducing environmental impact through resource optimization, waste management, and energy efficiency. Training in this area helps to understand how to integrate digital solutions to improve the overall sustainability of tourism operations.

In addition, the ability to adapt to emerging technologies is essential. Artificial intelligence, virtual reality, and other innovations are shaping the tourism experience. Training in these technologies prepares operators to implement state-of-the-art solutions that enhance the attractiveness of the destination, offering unique experiences to visitors.

## 16. Final conclusions.

"Smart Tourism - Practice Manual" represents a fundamental compendium that guides SMEs and tourism organizations towards smart and resilient tourism ecosystems. In the framework of Activity 3 of the Erasmus+ KA2 project "From Digital to Smart Tourism", this handbook created and coordinated with all the bodies part of the project, emerges as a key resource to support the tourism sector in the implementation of smart and sustainable strategies.

The handbook, available in four languages, offers a practical approach to the challenges and opportunities of smart tourism. Through the integration of best practices, case studies and innovative strategies, this handbook aims to create awareness in how SMEs and tourism organisations deal with the digital and sustainable dynamics of the sector.

One significant aspect is its impact on different players in the industry. Not only does it support SMEs and tourism organisations, but it also involves VET providers and training professionals in tourism. This integrated approach seeks to feed the need for continuous learning, adapting the tourism sector to new skills needs and labour market demands.

Training in digital technologies emerges as a key element in the tourism context. This strategic investment is not only an adaptation to modernity, but a shrewd move in adaptation, innovation and sustainability. Tour operators who embrace digital training are not only surviving in the changing tourism environment, but thriving, leading the industry towards a more connected, sustainable, and experiential future.

In the specific context of Italy, Spain and Turkey, tour operators have to navigate through a complex landscape, balancing tradition and innovation, sustainability and tourist attractiveness. Adapting to the needs of an increasingly diversified tourism market requires: a) continuous training, b) collaboration with local authorities and c) the adoption of digitalisation strategies. Only by embracing this continuous evolution can operators successfully meet the challenges and capitalize on opportunities in a constantly changing tourism industry.