

Tourism, Hospitality & Event Management

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The Spanish Model for Smart Tourism Destination Management

A Methodological Approach

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Foreword

Tourism is one of the most transformational economic sectors due to its human nature. It is the first employer for youth and women, and, thanks to its transversality, it has an aggregate effect over the rest of the value chains of the economy. Tourism, as a catalyst for human progress, can directly contribute to the flourishing and well-being of our societies.

To fully deploy the potential that tourism has as a motor for sustainable development at the service of humanity, it needs to be placed at the centre stage of governmental policy-making. This exercise requires a long-term vision and coordinated efforts among administrations at the national, regional, and local levels that benefit from an open innovation model in which the private sector is engaged and that prioritizes people, the planet, and prosperity as the guiding compass.

Smart tourism destinations are the culmination of this cross-collaborative and innovative approach, with Spain at the forefront of this journey. An initiative born in the 90s that pursued competitiveness and quality improvement for the sake of travellers and residents alike has evolved into a complex methodology that applies the latest technologies to evaluate and monitor the efficient management of destinations based on evolving challenges and opportunities.

Among its benefits are the enhancement of effective governance, a better use of resources, the mapping of new tourism products and services, a more fine-tuned commercialization, the advancement of accessibility and, ultimately, it represents a stimulus for the sustainable development of destinations with a positive impact in the quality-of-life of residents.

Hence, it comes as no surprise the organic growth that the model has experienced during the last three decades, with an increasing number of rural and urban destinations joining the certified networks that exist in Spain and Latin America, and with new markets keen to embrace this pioneering working method.

Digitalization and innovation are at the cornerstone of this comprehensive and integral system, and it is strategic that implementation efforts are paralleled by infrastructure and education investments that guarantee accessibility to technology and connectivity, as more communities around the globe seek to harness tourism as a motor for sustainable growth.

I celebrate the commendable effort behind this enlightening book full of valuable insights and best practices, which I trust will assist destinations, academia, and future professionals in the sector to contribute to the design of travel experiences memorable for all.

UNWTO, Madrid, Spain
December 2023

Natalia Bayona

Foreword

Tourism is constantly evolving and adapting, even in the face of geopolitical uncertainty and the ongoing pandemic. In 2019, the World Tourism Organization (UNWTO) emphasized the significance of destinations and the organizations responsible for managing them, leading to a greater understanding that tourism takes place within a specific location and is managed accordingly.

Tourism is a private activity that utilizes public space and resources, relying on public infrastructure and services for support. A more comprehensive approach to tourism recognizes the contributions of all actors involved, embraces the integration of technology and new stakeholders, and prioritizes sustainable practices. These challenges can only be addressed by renewing and enforcing effective tourism policies.

We understand that the challenges in tourism are not limited to just digital and technological aspects. Several issues such as seasonal variations, overcrowding, environmental impact, climate change, security, mobility, waste management, residents' perception, and citizen participation in policy-making are still prevalent. Additionally, public-private collaboration and traditional tourism governance models also need to be re-evaluated.

We are currently facing new and significant challenges in the tourism industry. This requires a reformulation of the role of tourism policies and the development of new planning and management tools at the local level. We firmly believe that the competitiveness of Spain's tourism lies within its destinations. Therefore, it is essential to focus on improving tourism policies and management at the local level to maintain and improve Spain's position in the global tourism market.

Our tourist destinations are where tourists, tourism service providers, and residents come into direct contact. These destinations come in different sizes and have their unique characteristics. Every day, the people involved in tourism face a variety of challenges and opportunities. We must understand and anticipate these challenges to benefit one of our most important national industries.

Nowadays, the pressure exerted on tourist destinations in the twenty-first century by new sociodemographic, political, economic, environmental, and technological trends of all kinds places their public managers in the face of challenges of a nature

and scale never before known; managing marketing and promotional campaigns is no longer enough. As the World Tourism Organization itself points out in its UNWTO Guidelines for strengthening destination management organizations (DMOs), DMOs must abandon their “traditional role of entities responsible for the marketing and promotion of destinations, to become managing organizations with a broader mandate that encompasses strategic planning, coordination, and management of a wide range of activities within the framework of an appropriate governance structure”.

In a context such as the one described, promoting sustainable tourism development at the country level inevitably requires redefining the traditional role of tourism policy at the local level and many of its planning, management, and action tools on the territory.

The needs of destination managers have changed and their tools must too. In Spain, aware of this need, we have long successfully refocused a good part of our policies, instruments, and available funds towards the local entities that make up tourist destinations, especially during the last two years in which we have had the opportunity to take advantage the funds from the Recovery, Transformation, and Resilience Plan (RTRP), to accelerate the recovery of one of the sectors hardest hit by the effects of the pandemic.

Good proof of the success of this process of refocusing public tourism policy in our country is corroborated by the evolution of some of the main tourism macro-magnitudes of the last year 2023, and the fact that Spain has been recognized, in two consecutive editions, in 2015 and 2019, as the country with the most competitive tourism sector in the world, according to the World Economic Forum’s Tourism Competitiveness Index.

In this context, a tourism public policy instrument as successful as the Smart Tourist Destinations program is framed and promoted by the Secretary of State for Tourism through the State Commercial Society for the Management of Innovation and Tourism Technologies (SEGITTUR).

The DTI Model is an ambitious and long-term project, a pioneer at a global level, and aims to provide a new framework of reference for local tourism policy of this century, which will contribute to consolidating the levels of development and competitiveness of the Spanish tourism model, while laying the foundations for what will be a new model of more sustainable, profitable, competitive, and quality tourism development based on the levers of innovation, knowledge, and technology, based on new models of collaborative tourism governance.

An initiative that promotes, within the new Sustainable Tourism Development Strategy 2030, the roadmap of the Ministry of Industry and Tourism in the 2030 horizon, together with the Autonomous Communities and tourism managers at the local level.

We are facing a Manual that I consider as timely as it is necessary in which the theoretical principles of the DTI Model and a good part of what has been learned in the more than one hundred implementation and evaluation processes of the model in different countries around the world are collected and synthesized. A Manual that will be a mandatory reference.

I do not want to conclude without making an invitation to all those public managers of national, regional, and local tourism administrations, from any country and region of the world, committed to sustainable development, to take advantage of the knowledge condensed in the pages of the present book and to use the DTI Model developed by SEGITTUR in Spain, as an operational and flexible tool, which should be adapted to their respective realities in order to handle the different challenges that they face. Moreover, I encourage them to share with us and the international community their experience, to boost a positive change on tourism destinations management, turning it more innovative and sustainable.

Tourism, Ministry of Industry
and Tourism of Spain
Madrid, Spain
December 2023

Rosana Morillo-Rodríguez

Acknowledgements

The emergence of scientific literature on smart tourist destinations, distinct from the concepts of smart cities and smart tourism, is a relatively recent trend that has only gained traction in the last decade. This area of research has experienced notable growth, particularly in Spain where researchers and research groups have made significant contributions. While this trend is still in its infancy, it is beginning to gain momentum in other parts of the world, and more tourist destination managers are adopting its principles. This dynamic is resulting in a mutually beneficial relationship between theory and practice.

One of the defining features of the Smart Tourism Destinations Model developed by SEGITTUR is that it was not created through theoretical research in a lab. Instead, it was developed by combining elements of existing models that had been tested and validated in the field by SEGITTUR technicians. These technicians, many of whom authored different chapters of the manual, engaged in a dynamic and ongoing process of iteration with diverse destination managers. All of this was done within a constantly changing context, which has been heavily impacted by the COVID-19 pandemic over the past three years.

I believe that the release of a manual like this one, which addresses and explains in detail all the theoretical and practical elements that make up the DTI Model developed by SEGITTUR, as well as the aspects involved in its implementation in tourist destinations, will help to spread awareness of the concept of smart tourist destinations and encourage more destinations to adopt it. Furthermore, it will provide valuable material for researchers and students of the DTI concept, contributing to an ongoing debate that continues to be enriched by new contributions from within and outside our borders, in a process of constant co-creation.

The Manual for smart tourist destination diagnosis methodology has been developed based on the work of various international organizations including the World Tourism Organization, the European Commission, the OECD, and the Inter-American Development Bank (IDB). It also incorporates the inputs and insights of tourism technicians, specialists from public administrations at national, regional, and local levels (such as city councils, associations, regions, provincial councils, councils, and island councils), as well as tourism researchers and consultants. These

inputs have provided highly valuable recommendations for improvement throughout the development process.

It is not possible to summarize in a few paragraphs the ten years of diverse contacts, interactions, consensus, and shared learning that have been a part of the evolution of SEGITTUR's DTI Model. However, it is important to acknowledge that much of what the model has achieved today, both nationally and internationally, and what it may achieve in the future, is due to the collective effort of all those who have participated in its design, execution, and implementation in various destinations, including the Secretary of State for Tourism of the Government of Spain, the presidency of SEGITTUR, the management, project managers, technicians, and others from all levels of administration. They have been involved in the processes of reflection that have been opened at different moments in time, and members of the Technical Committee for Standardization 178, and Subcommittee 5 on destinations have also participated. And of course, the Academy itself has played a vital role in this process.

We would like to extend our sincerest gratitude to all those who have contributed to the creation of this Manual, serving as accomplices and essential architects to its development. We want to express our thanks to everyone involved, without exception, in a generic manner so as not to leave anyone behind. This appreciation comes from both myself and the entire team at SEGITTUR Smart Tourism Destinations.

Director of Research, Development
and Innovation at SEGITTUR

Mr. Carlos Romero-Dexeus

About This Book

This manual is a project resulting from the Spanish tourism experts and policy makers will of sharing and disseminating the smart strategic tourism management Model developed in Spain during the last decade. Spain hosted last year, 2023, more than 75 millions of tourists, and before the COVID 19 pandemic more than 80 millions, being one of the most evoked countries in the world as an aspirational tourism destination. Moreover, the World Economic Forum identified Spain as a leading competitive tourism destination in 2015, 2017, and 2019. This advantage positioning did not happen by chance but by a strong determination of Spanish tourism planners and professionals to excel in their activity, enhancing the quality of the tourists' experiences.

The targeted objective when writing a manual to describe the Spanish Smart Strategic Tourism Management Model, acknowledged in Spain as the “*DTI Model/ Modelo de Destinos Turísticos Inteligentes*” emerged from the sound conviction that progress is only plausible when knowledge is disseminated, opened it up, since evolving often requires exposing your approach, allowing others to confront it. Only the knowledge that is shared boosts a pathway for growth and social prosperity, thanks to the reflections arising from criticism and the discussion of alternative points of views, improving the original base model.

Therefore, the Secretary of State for Tourism and the SEGITTUR promoter team of the DTI Model aimed to share, cooperate, and contribute to the creation of collaboration networks between experts and tourism managers from around the world, to promote a truly intelligent and sustainable management of tourism at a global level. I feel honoured for being the chosen university academic to transcribe the DTI Model and edit, together with SEGITTUR President Mr. Enrique Martínez and SEGITTUR Innovation Director, Mr. Carlos Romero. It has been a challenging project and very edifying task to work with the whole SEGITTUR team.

In sum, this manual has been written to share and support the staff at destination management organizations in the strategic planning of the destination; to share and provide the educational community with updated materials with which to train future professionals in the tourism sector; and last, to share and stimulate a constructive debate that allows us all to face the major challenges that we face as a

society: climate change, promoting a more circular economy, sustainability and rationalization of the use of resources, the even and democratic digitalization of the tourism industry, lessening inequalities, favouring better labour conditions for tourism employees and promoting social justice, and ultimately improving citizens' quality of life.

With this manual, Spain as a tourism destination and as a technological advanced society drafts a pathway for tourism sector innovation, describing its strategic tourism management model and detailing how it works in Spain, coordinating at a territorial and interdepartmental level, the management of tourism to host, year after year, millions of tourists, assuring they enjoy memorable experiences in the country, at the time that the resources are preserved and the well-being of Spanish people is safeguarded.

As academic editor of this manual, I assumed a tremendous responsibility: that of transmitting the work developed by the excellent SEGITTUR team, who have structured the tourism management of Spanish destinations, structuring it into five essential spheres of action: innovation, technology, digitalization, sustainability, and accessibility of destinations. Organizing all the know-how of this exceptional team of professionals and presenting it to potential readers, who will undoubtedly make a critical reading of it, interpret it from their perspectives and professional experiences, and predictably improve it with their contributions and constructive criticism.

In short, this manual has been written with a vocation to serve the society for which we work from the Secretary of State for Tourism, SEGITTUR, and the Spanish Public University. Hoping that reading the manual comprehensively will be useful to you.

Leading Editor of the Manual,
Associated Professor,
University of Extremadura, Spain
Badajoz, January 2024.

Lidia Andrades

Contents

Part I The Context: The Need for Smart Tourism Management

Tourism Trends: Current Challenges for Tourism Destinations Management	3
Frédéric Dimanche and Lidia Andrades	
Origin of the Spanish Smart Tourism Destinations Program.	23
María Velasco-González	

Part II The Method: The Spanish Model for Smart Tourism Destination Management

Methodological Framework of the Spanish Smart Tourism Destinations Model	37
SEGITTUR and Aurkene Alzua-Sorzabal	
The Pillar of Governance in the Spanish Smart Tourism Destinations (DTI) Model.	87
SEGITTUR and Lidia Andrades	
The Innovation Pillar in the Spanish Smart Tourism Destination (DTI) Model	127
SEGITTUR and Lidia Andrades	
The Technology Pillar of the Spanish Smart Tourism Destination (DTI) Model	149
SEGITTUR and Lidia Andrades	
The Pillar of Sustainability in the Spanish Smart Tourism Destination (DTI) Model	177
SEGITTUR and Lidia Andrades	
The Pillar of Accessibility in the Spanish Smart Tourism Destinations (DTI) Model.	223
Luigi Leporiere and Lidia Andrades	

Part III Conclusions: Smart Tourism Management in Practice

The DTI Model Experience: Best Practices on Smart Destination Management 251
SEGITTUR

The Spanish Smart Tourism Destinations Network: The Instrument for Transferring and Stimulating the Adoption of National Tourism Policies 277
SEGITTUR

Spanish Smart Tourism Destinations: Final Considerations and Future Lines of Work 297
Josep A. Ivars-Baidal

Epilogue, by President of SEGITTUR 309

About the Editors

Lidia Andrades, Ph.D., Associate Professor at the Faculty of Business and Economic Sciences of the University of Extremadura, Spain. Lidia research interests are related to tourism destination competitiveness and sustainability management from a comprehensive perspective adopting both demand and supply side approaches.

Her work has been published in leading international tourism journals such as *Tourism Management*, *Journal of Travel Research*, *International Journal of Hospitality and Contemporary Management*, *Tourism Analysis*, or *Journal of Sustainable Tourism*, as well as in several books on *Tourism Management*, *Research Methods in Tourism*, or *How to Create Experience Value in Tourism*. Lidia also has experience as international project manager, having been the designer and head of the European Union funded project NETOUR (Network for Excellence in Tourism through Organizations and Universities in Russia), leading a consortium integrated by sixteen European universities and research institutions from Russia, France, United Kingdom, Ireland, Finland, and Spain. Since 2021, Lidia cooperates with SEGITTUR on the strategic management model for smart tourism destinations, being the leading editor of the present manual.

Enrique Martínez-Marín, President of SEGITTUR. Graduate in Political Science and Sociology from the *Complutense University of Madrid*, Master in Public Management (*Centro Superior de Estudios de Gestión Análisis y Evaluación UCM*), Master in Leadership and Public Management (UIMP-INAP), expert in Policy Evaluation and Quality of Services (AEVAL-UCM) and Diploma in “New Forms of Leadership and Political Transformation” (*EILx-Goberna*).

Enrique has extensive experience in smart territories, having assumed responsibilities in this area as an advisory member of the Cabinet of the State Secretariat for the Information Society and the Digital Agenda, as well as being the coordinator of the National Plan for Smart Territories. He has been president of the UNE Technical Committee for Standardization 178 (Smart Cities) since 2014.

Enrique has worked in different organizations, being a member advisor to the Undersecretariat of the Ministry of Industry, Tourism and Trade (April 2009 to February 2011), director of organization, technological development and risk control at the International and Latin American Foundation for Public Administration and Public Policy (FIIAPP) (February 2011–May 2011), and advisor to the National Postal Sector Commission (CNSP), the postal market regulatory body (May 2011 to October 2013). He has also been Director General of the National Institute of Communication Technologies (INTECO, now INCIBE), under the Ministry of Industry, Tourism and Trade (March 2006/March 2009), as well as Director of the Red.es Telecommunications Observatory for the Information Society (July 2004/October 2006) and Director of the Technical Office, which, within the C.A.T.S.I., defined the Convergence Plan on which the Avanza Plan was based (July 2004/October 2006).

Carlos Romero-Dexeus, Director of Research, Development and Innovation at SEGITTUR. Graduate in Economic Sciences, specializing in the economic structure of Spain from the *Complutense University of Madrid*. Executive Master's Degree in Tourism Business Management from the *Instituto Empresa*. PhD candidate at the Department of Leisure, Culture and Communication for Human Development at the University of Deusto. Postgraduate in social research techniques and data analysis research from the Centre for Sociological Research (CIS). Carlos has more than 25 years of experience in the tourism sector in the direction and management of projects and work teams, at national and international level, in the fields of measuring the economic impact of tourism, tourism satellite accounts, economic analysis, tourism policy, innovation, entrepreneurialism, digitalization, research, innovation, and new technologies, all of them within the field of tourism. He has served as head of the Smart Tourism Destinations programme in Spain and president of Subcommittee 5 on tourism destinations at the UNE Technical Committee for Standardization 178 (Smart Cities) since 2016. Carlos previously served as executive director of the Affiliate Members of the World Tourism Organization (UNWTO) and general director of the UNWTO·THEMIS Foundation (2005–2008). He has provided services as a consultant on tourism statistics and Tourism Satellite Account for the Department of Statistics and Economic Measurement of Tourism at the UNWTO and EUROSTAT in Europe, Latin America and the Middle East (1999–2005). Previously, he worked for the Institute of Tourism Studies of Spain (IET) as a statistician in the design and implementation of the main tourism demand surveys in Spain, as well as in the development of the first Tourism Satellite Account in Spain, in cooperation with the National Statistics Institute and the Bank of Spain (1997–2005).

Part I
The Context: The Need for Smart Tourism
Management

Tourism Trends: Current Challenges for Tourism Destinations Management



Frédéric Dimanche and Lidia Andrades

Abstract This introductory chapter presents and discusses some of the salient challenges and trends (i.e., climate change, overtourism, threats to diversity, security, technology, labour issues, and competitiveness) that the tourism sector is facing and that must be addressed by any government and manager who has the ambition to lead a responsible, sustainable, and competitive destination. The chapter proposes to consider tourism from a different and more holistic perspective: Tourism should not be viewed only as an economic engine that sells services, but as an activity that is part of a global natural and socio-cultural system which is impacted by tourism (both positively and negatively) and that should also contribute to improvement and sustainability. It discusses how smart destinations require innovative development, management, and marketing solutions to address those challenges and trends to meet sustainable development goals (SDGs). Finally, the chapter introduces and proposes the model of the Spanish Secretariat of State for Tourism, developed by SEGITTUR, for the Smart Tourism Management.

1 Introduction

This manual is for destinations that want to control their fate in a fast-changing environment and for destinations that want to manage tourism, beyond being merely responsible for attracting tourists and delivering services. Readers will find out across the next chapters that this is a manual for destinations that aim to align their tourism strategy with the Sustainable Development Goals (SDGs), and that want to

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become friendly and welcoming spaces for tourists to enjoy memorable experiences, and where residents can improve their quality of life (United Nations, 2015). Specifically, this manual presents a smart strategic tourism managerial model to achieve those goals.

The purpose of this introductory chapter is to present and discuss some of the salient challenges and trends that the tourism sector is facing and that must be seriously addressed by any destination that makes efforts to be relevant, responsible, and competitive. The chapter also proposes to consider tourism from a different, more holistic perspective. Tourism should not be viewed only as an economic engine that sells services, but as an activity that is part of a global natural and socio-cultural system which is impacted by tourism (both positively and negatively) and that should also contribute to improvement and sustainability.

Recovering from the biggest crisis it ever faced, the tourism sector is set to come back to pre-pandemic levels. However, it would be a mistake to assume that tourism is getting back to “normal” and that all is now well. The sector continues to face unprecedented challenges and trends that slowly shape the direction. Some of those challenges already appeared before the pandemic, but many chose to ignore them. A trend is a development, a tendency, or a change that helps define a direction. For tourism, several challenges and issues are helping us forecast or envision what the future may look like. In the box below, Sandra Carvao, Chief, Market Intelligence and Competitiveness at the World Tourism Organization (UNWTO), reflects on the main challenges that the tourism sector must address to get closer to the desirable shared vision of a more competitive and sustainable tourism activity. Trends lead to changes in tourist behaviour, business processes, and destination planning and management. Significant trends also lead to political decisions, policies, and laws and regulations. All tourism organizations, be they governmental or private, develop goals, objectives, and strategies that are based on assumptions of what a desired future may look like. For destinations, understanding the external environment, trends and challenges, and their impact on future business is essential for successful strategic management. The issue is not only to be competitive compared to other destinations; it is to become and remain sustainable from an environmental, social, and economic perspective. There is an urgency for all actors to be smarter and to address the changes we are facing, in particular because of climate change, not only in a tactical way, but also in a strategic way. We all need to think more in terms of the bigger picture to help manage tourism so that destinations and their residents can thrive in a difficult future. Some in the tourism industry are already guided by the United Nations’ 17 sustainable development goals (SDGs) (United Nations, 2015), but it is not sufficient.

The Tourism we want: the decisions we make today will define the tourism of tomorrow.

Just two years ago, in July 2021, the number of international tourists in the world reached no more than 60% of that of July 2019. Ranked third in the world export sector in 2019 – after fuels and chemicals, and ahead of food and automotive products – tourism fell to ninth place in 2021. The latest UNWTO World Tourism Barometer forecasts that the total value of international tourism will fully recover in most regions of the world by 2023.

There was much talk of change during the pandemic. It is essential that tourism seize this moment to accelerate the transformation towards a more competitive, inclusive, sustainable, and resilient future. We need to invest in new products and experiences that meet the changing needs of travellers – such as community engagement and nature-based experiences – supporting the digitalisation of the sector and facilitating visas and funding for infrastructure, particularly in the area of connectivity, which includes digital connectivity. We need to work towards greater empowerment of women, inclusion of local communities, improvement of working conditions, as well as advancement of education and skills. We need to accelerate climate action through strong actions and commitments to achieve the goals of the Paris Agreement – investing in measurement, decarbonization, and regeneration. We need to do so with a comprehensive governance approach based on national and national-local coordination; promoting public-private partnerships and community empowerment for a public-private-community partnership model. Finally, we must strengthen the multilateral system and coordination to increase tourism competitiveness and sustainability.

Sandra Carvao

Chief, Market Intelligence and Competitiveness

World Tourism Organisation (UNWTO)

This chapter addresses some key challenges and trends, specific to the tourism sector, that smart destinations must attend to with purpose and vision. The tourism sector is at a crossroads: Following a pandemic that brought it to its knees, global tourism has mostly recovered and is well on its way to getting back to its 2019 levels. However, the industry continues to face several challenges that will continue to test its resilience and that will require innovative development, management, and marketing solutions. The major challenge that the sector is facing is, of course, climate change and its resulting environmental impacts. But other issues continue to disturb tourism, such as overtourism, threats to cultural (UNESCO) and biological diversity, safety and security in a difficult geopolitical environment, to name but a few. Also, to consider are the increased cost of living that will continue to shift consumer preferences and behaviours, and technological changes such as artificial intelligence (AI), robots, chatbots, automation, and virtual reality. Finally, the industry continues to face labour challenges that must be urgently addressed. To be successful, to continue to attract travellers and to provide them with quality experiences, destinations must strategically address these challenges and learn from current trends. Only smart destinations will be able to manage the flow of new information and the externalities that confront the industry. In the next pages, the main challenges and trends affecting the tourism sector are presented, opening a discussion on how the smart strategic tourism destination management model, promoted by the Secretary of State for Tourism of Spain, through SEGITTUR as part of the Spanish Tourism Policy, supports destinations to better adapt and compete in a fast-changing environment.

2 Climate Change

Climate change is already contributing to changing tourist flows and destinations. Some Mediterranean regions, for example, have seen in the summer of 2023 fewer tourists because of the well-mediatised threat of more frequent heat waves and fires. When there is a wildfire or record temperatures in a particular area, the national and international media cover it and many people think, rightly or wrongly, that it is unsafe to travel in the broader region, or even the country. Then, tourists are looking for alternatives. But where to go? We have seen this summer heat waves and fires in Greece, draughts and water restrictions in Spain, hailstorms in Italy, and floods in Slovenia. Winter was difficult as well with many European resorts closing for lack of snow. The problems don't respect borders: As we have witnessed in Canada, wildfires and their smoke have impacted the northeast of the USA, as far as New York City. The media worldwide reported the fires resulting in the evacuation of tourists from Rhodes, Greece, the destruction of a seaside resort in Hawaii, and the eerie orange skies in New York.

Climate change is not only creating more frequent extreme events that disturb tourists and their vacations but also affecting destinations for the longer term: The number of snow days in the Alps is declining and some wonder whether the traditional Mediterranean sun and beach summer holiday is put at risk because of unbearable temperatures. In addition, rising water levels and erosion are changing the landscapes that visitors know. Climate-related issues are felt around the world and most people are now aware of them... but are travellers changing behaviours (Gössling et al., 2012; Juvan & Dolnicar, 2017).

It seems that tourists may be starting to choose alternative destinations or to change travel times in favour of shoulder seasons, based on climate-related risk perceptions (Oliveira et al., 2022). But are they travelling less or flying less (Denley et al., 2020)? This remains to be seen in the next few years, because we are currently witnessing a strong eagerness to travel, which some call revenge travel (Liu & Wang, 2023; Meenakshi et al., 2023), probably resulting from the travel restrictions imposed in many countries during the pandemic. Worldwide travel volumes are on their way to being back at 2019 levels, as if nothing had happened and as if climate change and flight shaming were not a concern.

From a destination perspective, climate change will require change and adaptation. For example, in some countries, local authorities closed natural parks as a preventive measure because of the high fire risk; others restricted water usage. But they all appear to do “just enough” to manage the crisis on a day-to-day level, to be resilient, and to wait for a better season next year. Unfortunately, there may not be a better season next year: The frequency and intensity of the impacts of climate change are likely to increase over the years, since collectively, we don't appear to be able to change course yet. The tourism sector (about 10% of world GDP, according to UNWTO or WTTC) has not fully embraced its contribution to CO₂ emission, climate change, and water shortages. We need destinations and responsible managers who recognize the current challenges, embrace the future, and propose new

tourism strategies that will contribute to leading the way towards global solutions. Society too often expects fast solutions and prompt results. Unfortunately, this will take time: Climate change is a long-term challenge with short-term consequences that will increasingly threaten our livelihoods. Governments, destination managers, and other industry stakeholders must work together to limit climate change and to design less-consumptive travel experiences. Looking for and providing responsible and sustainable travel solutions should be done with residents in mind. The well-being of the local communities should be at the forefront of tourism planners and managers' minds or attention.

Choosing tourism as an economic development strategy has its drawbacks for the environment and socio-cultural costs for the local communities. The tourism industry must take responsibility for these drawbacks: They must be identified, measured, and managed. A few travel companies and destinations are already on this path and should inspire others to be accountable for the impacts the travel and tourism sector has. The growing B-Corporation movement ("the for-profit Corporations Beneficial to society") for example, helps companies focus on rethinking their business model, processes, etc., to reduce the negative impacts of their activity, benefiting all people, communities, and the planet (Lacmanovic & Milec, 2018; Zebryte & Jorquera, 2017). Such companies make efforts to lower their carbon footprint and social impacts, and, at the same time, help educate travellers about the role they play and the responsibilities they have. Tourists will continue to travel, but they should be encouraged to learn about the destinations they wish to visit and the issues those destinations have. Ideally, knowledgeable tourists will then be more inclined to contribute to solutions, rather than being merely the cause of problems.

Frequent droughts due to climate change, in many areas of the globe, represent a major challenge for governments, DMOs, and tourism managers. Since the tourism sector is a highly water-consuming sector (Mendoza et al., 2023), and the growth in the number of tourism establishments correlates with growth in water demand, implementing actions to reuse and save this scarce resource turns out to be essential for destinations. Moreover, within tourism companies, hotels are responsible for the highest water consumption rates in the tourism sector (Antonova et al., 2021). Consequently, exploring tourists' perceptions regarding adopting water-saving measures or willingness to pay taxes at destinations to implement such measures becomes a key issue to address in coming years (Gabarda-Mallorquí et al., 2022).

3 Overtourism

With globalization and the rise in travel demand, easily accessible and popular destinations run the risk of experiencing overtourism. Some European cities (e.g., Barcelona, Dubrovnik, Venice) already suffer from high numbers of tourists that can't be accommodated properly, leading to resident frustrations and tourist poor-quality experiences. This is an issue of carrying capacity (Bertocchi et al., 2020), or more exactly of under-capacity, as compared to visitor numbers. Destinations don't

have enough hotel rooms to accommodate all visitors, resulting in an increasing number of private houses and apartments turning into short-term rentals, in turn resulting in locals having difficulty finding affordable housing. Destinations don't have enough parking spaces for cars, contributing to increased traffic and resident frustration. Also, some destinations don't have enough attractions to visit, leading to a very high concentration of visitors in a limited area.

Overtourism calls for tourism planning and management strategies that will help prevent tourist overflows and that will contribute to making destinations more resilient and liveable for residents. However, due to a lack of political and managerial courage, many popular destinations continue to face large numbers of tourists who can't be accommodated well, resulting in poorer experiences and frustrated, if not angry, residents (Andrades et al., 2014). Indeed, Butler and Dodds (2022) reported that destinations tend to lack the willingness to see and address the problem of large tourist numbers. In this context, technology should emerge as a useful tool to help destinations grapple with the challenge of managing tourist flows smartly and prevent the deterioration of the tourist experience. Moreover, "Creating new value such as local residents starting to reconsider and rediscover their own regions and promoting attractiveness will become important themes for tourism in the years ahead" (Haxton & Camacho, 2023). With ever-growing numbers of visitors to destinations, overtourism will remain a salient and complex problem to solve. However, unlike climate change, it is one that tourism planners and managers have the power to resolve.

4 Threats to Cultural and Biological Diversity

Climate change and overtourism are shaping the tourism sector's current context, exacerbating the well-known negative impacts of tourism activity, and risking the preservation of the biological and cultural diversity of tourism destinations. Likewise, the intangible heritage is threatened by standardization and commodification (Buck Tawney, 2020): Destinations that are trying to adapt their tourism supply to international tourists' tastes threaten local identities and social diversity, which, in turn, lead destinations to compromise their initial advantageous differentiated position in the market.

Nowadays, the degradation of ecosystems is worsened by climate change (Pellaton et al., 2022) and as a result threatens the attractiveness of destinations' resources and their appeal to tourists. This represents a major managerial challenge for DMOs. In this context, strengthening destination governance becomes essential for competitiveness and sustainable development. Often, the topmost challenges to biodiversity conservation and tourism at destinations are caused by the increasing population and tourists' consumptive needs, together with the competing interests of various stakeholders. Moreover, for destinations in developing countries, such as some in Africa, poverty, greed, and historical legacies render difficult destination governance (Lampthey, 2021). Therefore, achieving a common agreement at

destinations and a commitment to prevent the continuous detriment of many natural ecosystems as well as tangible and intangible cultural resources represent a major challenge for the coming years. In this regard, Fatorić and Seekamp (2017) identified technical, financial, and institutional barriers as the main challenges to minimizing climate risks and stated that those obstacles can only be overcome if governance at destinations is strengthened. Certainly, to align competing interests and to mediate in favour of a more fair and sustainable tourism development, empowering governance will be an essential determinant of success.

5 Safety and Security

Safety and security have always been a concern in tourism. Operators and destinations are responsible for the well-being of travellers and visitors. The past few decades have been marked by events that have further contributed to making governments and people more concerned about security and safety. The 09/11 Islamic terrorist attacks remain a turning point in the way governments approached air travel. Since then, security procedures have changed worldwide and have impacted how we go through airports and how we fly. Terrorist attacks have also changed how we manage large and smaller events (Ludvigsen & Parnell, 2023). The cost of assuring security at mega-events such as the Olympic Games or World Cups has gone up exponentially, to such an extent that the pool of cities or countries that can afford to be candidates for hosting those events is getting smaller (McBride & Manno, 2021).

Health crises are also increasingly costly. For example, the mad cow disease in the UK or the SARS crisis (2003) in Hong Kong and Canada (Smith, 2006) led to fewer visitors and fewer revenues for those countries. But those events paled in comparison with what the COVID-19 pandemic brought about: A complete international shutdown of the tourism sector. Some countries closed their borders and/or restricted people from travelling, even domestically. Those measures, and sometimes the additional effect of negative news media that exacerbated people's fear of travelling (McClinchey & Dimanche, 2023) had a damaging effect on the travel sector and led millions of workers to lose their jobs (read below about the labour crisis).

The COVID-19 pandemic may be over, but some people continue to request, when possible, remote working arrangements and from the travel and hospitality industry more tangible hygiene and safety procedures such as contactless check-ins and payments. The COVID-19 pandemic raised awareness among tourism policy-makers on the need for improving crisis management strategies, as well as security protocols, to strengthen hygiene and safety at destinations (Jiang et al., 2023).

WTTC (2021, p. 4) defined seamless travel as “a journey during which the traveller no longer needs to present travel-related documents (e.g., boarding passes) or identification documents (e.g., passport) multiple times to multiple stakeholders at different checkpoints in their journey. Travellers will be able to book transportation, check-in, proceed through security, cross borders, board their aircraft, collect

luggage, rent a car, check-in and out of their hotel and other non-air services, simply by confirming their identity and booking data in a contactless way". Seamless travel enhances tourists' experiences, and destinations should be able to improve their governance to foster public–private sector collaboration to collect and share data, at the time that privacy is assured. With this purpose, the interoperability of data collection platforms, at the different travellers' encounter points of private companies and public services will be decisive. On a basis of collaboration at the destination level, the development of solutions and operational processes to provide seamless, instinctive, and convenient customer experiences should become possible.

Beyond safety, research on healthful lifestyle habits and healthy eating witnessed a growing interest within the academic community (Rodríguez-López et al., 2020). Possibly, environmental concerns have added to the local-first approach of many tourists and have given rise to trends related to demanding organic food and eco-travel (Konuk, 2019; Pellegrini et al., 2023).

6 Technology and Digitalization

The tourism sector has traditionally been one of the early adopters of technology. In the last decade, a disruptive technological revolution enabled the emergence of multiple high-tech managerial solutions: contactless payment, augmented reality, virtual reality, artificial intelligence, robots, chatbots, blockchain, metaverse, massive data analysis with which to personalize the tourist experience like never before possible, etc. Nowadays, tourism destinations, as well as tourism companies, may benefit from competitive advantages if they adopt innovative technologies to expand their tourism services production processes, commercialization, and delivery (Hsu et al., 2016; Neuhofer et al., 2015). Indeed, Sustacha et al. (2023) showed that smart technology has a positive effect on the tourist experience. Enhancing tourists' experiences at destinations will highly depend on destinations' ability to integrate these new technologies into their managerial practices (Garanti, 2023). Goel et al. (2022) analysed the drivers and barriers to consumers' adoption of artificial intelligence and robots in the hospitality and tourism industry. Within the barriers, psychological, social, financial, technical, and functional perceived risks were identified as the main obstacles to overcome.

Despite the rising attention given by the academic community to the impacts that technology adoption has on the tourism sector, while technology-driven service innovation has been profusely studied from the demand approach, it still needs more attention from a supply perspective (Park et al., 2023). Garanti (2023) explored factors explaining travel agents' adoption of digital technologies to digitally transform their businesses, concluding that perceived relative advantage, compatibility, complexity, trialability, observability, supportability, and integrability are crucial factors. These factors may generalize to other tourism agents, more research is needed in this regard. One relevant issue related to technology adoption, from a supply standpoint, is that technology facilitates sustainable management at destinations,

for example introducing sensors to manage traffic flows, reduce pollution, or reduce water consumption for watering plants if humidity is high, embracing renewable energy innovations, etc. Consequently, technology may facilitate destinations and companies to meet the Tourism Agenda 2030 and some of the UN Sustainable Development Goals. However, without the government's support and collaborative approaches, tourism SMEs are very unlikely to adopt emerging technologies and be able to compete against larger peers and online platforms (O'Connor, 2023). Sharma et al. (2023) called on governments across the globe for attention to design and instrument policies oriented to lessen the digital gap and improve standardization.

Besides, technology may also help destinations when managing safety and security crises. Nevertheless, for destinations to benefit from all the opportunities that technology adoption may bring, important challenges must be addressed first (Ozdemir et al., 2023). One of those is the need to update human resource qualifications, and to train specialists on restructuring destinations databases, connecting them, unifying diverse semantics, and assuring their interoperability (Solazz et al., 2020). We should have human resources that can lead destinations by fostering the cooperation that is needed between the many different stakeholders that operate.

7 Labour Issues

Tourism is a people industry. The delivery of quality services and experiences to tourists relies, mainly, on a large workforce—over 300 million people worldwide work in travel and tourism—(WTTC, 2022). The pandemic had a very detrimental effect on tourism employment. Businesses struggled to survive, and many workers were laid off, quit, changed sectors, or retired. If the COVID-19 crisis was a major reason for this, it also acted as a strong catalyst for what was called “the great resignation” (Formica & Sfodera, 2022). Indeed, the travel and tourism sector suffered for years, in many countries, from human resource management issues that affected hiring and retaining quality employees. These issues, pre-dating the pandemic, included difficult working conditions and schedules, low wages and benefits compared to other sectors, and worker mental health challenges. The tourism industry ignored those issues that contribute today to continuing staff shortages. If some are calling for fair and decent work (Crespi-Vallbona et al., 2023; Winchenbach et al., 2019), it will take years for the industry to listen and react proactively. People seek better work conditions and benefits, but the industry has unfortunately been slow to take those considerations seriously. The industry continues to have a poor record concerning labour issues and there is consensus on the need to do more and better (Buckley, 2023; King et al., 2021). The current labour gap situation has been felt around the world: It is, mostly, due to leadership failures (Lin et al., 2022): The failure, mostly, to value the diverse workforce that often constitutes the industry front-line and that provides essential services to travellers.

The situation worsened during the pandemic in countries whose governments made inconsistent decisions about closing or reopening the industry. This had a

detrimental effect on job security and employee morale. In addition, the news media sometimes painted a dark picture of how dangerous it was to travel during the pandemic (Zheng et al., 2021). Not only was travel blamed for the spread of the virus, but tourism was portrayed as dangerous, not only for travellers, but also for workers (Yu et al., 2021). That led to not only a fear of travelling but also a fear of working in the frontlines of the travel, tourism, and hospitality sectors (McClinchey & Dimanche, 2023), resulting in a damaged reputation for the sector. The world came out of the pandemic, but the industry continues to struggle with attracting, hiring, and keeping employees, resulting in well-publicized travel woes with service failures at airports, in planes, hotels, or restaurants. The labour crisis keeps contributing to giving a bad reputation to the tourism sector. Indeed, staffing issues affect the quality of the services that are provided or contribute to price increases. This is increasingly hurting destinations that can't afford to attract visitors without making sure they have the necessary workforce to welcome and satisfy them. Providing fair work will remain one of the key issues for the sector to deal with in the next years (Camillieri et al., 2023).

Indeed, improving working conditions represents a key strategic challenge for the tourism sector in the coming years. The availability of qualified talent—with knowledge, professional experience, interpersonal skills, decision-making skills, self-management skills, emotional intelligence, and resilience to adapt to changes, as well as a sound strategic vision—provides destinations and tourism firms with a distinct competitive advantage (Elsharnouby & Elbanna, 2021). Accordingly, it becomes essential for tourism managers to become proactive and capable of exercising transformative leadership, which induces satisfactory work environments, where employees are willing to share and transfer their knowledge, cooperate, and develop innovative attitudes which leverage their creativity (Lin et al., 2022).

Another significant challenge that the industry must face is to continue boosting diversity and to offer women and minorities better opportunities for career development (Dimanche & Perzyna, 2024). On the one hand, the industry must engage in wide and collective efforts to improve its poor reputation, which not only affects current workers but also higher education institutions in their efforts to attract promising talent. On the other hand, university tourism management programs must change their approach to adopt a more humanistic management and leadership approach (Della Lucia et al., 2021). Facing the current and upcoming labour challenges demands coordinated efforts between the industry, government, and the public and private institutions that are delivering training, education, and professional certifications. They must align shared needs and interests, for effective and beneficial results to be achieved (Şimşek & Kalıpçı, 2023; Wesley et al., 2017).

8 Rethinking Competitiveness

In the above pages, some of the main challenges that currently shape the tourism sector have been discussed. In this environment, tourism leaders are inevitably forced to rethink how to adapt their management to remain competitive in the twenty-first century. As the reader may guess, in today's conditions, managing competitiveness cannot only consist of enhancing the attractiveness of destinations and satisfying visitors, while promoting sustainable socioeconomic progress in the territory. The technological revolution provides destinations with new tools and opportunities to improve the supply and to better fit tourism demand expectations. This fact, together with a greater awareness of the need to review past tourism development models, and to turn them into truly sustainable ones, is leading us to assess what it means for a tourism destination to be competitive.

Recently, international organizations such as the World Economic Forum, which traditionally published the *"Travel and Tourism Competitiveness Index"* [TTCI], reviewed this index, updated its methodology, and published what it called the *"Travel and Tourism Development Index"* [TTDI]. Intuitively, the focus of destinations now evolves from *"being the most competitive destination of the world"* to *"becoming a destination able to stimulate a sustainable development"*. The old TTCI offered a comparative measure of countries' tourism competitiveness based on a battery of indicators grouped into four pillars to explain tourism competitiveness: environmental factors that enable tourism activity; tourism policy and other facilitating factors; the destination's infrastructure; and its cultural and natural resources (WEF, 2008, 2009, 2011, 2013, 2015, 2017, 2019, 2022). The TTDI, on the other hand, is made of five pillars, with their respective indicators. In the TTDI, "The cultural and natural resources of the destination" no longer represent a pillar; they are integrated into a new pillar called "Factors driving tourism demand", which also includes other destination resources that are not linked to leisure pursuits. Furthermore, in the TTDI, "Sustainability", previously included in the "tourism policy and other facilitators" pillar of the TTCI, becomes, by itself, the fifth pillar and indicator in the tourism development index proposed by the WEF (WEF, 2022). This change illustrates the observed changing trend in tourism management, which involves incorporating new managerial criteria, expanding objectives, and prioritizing social well-being and sustainability.

9 The SEGITTUR Proposal: Smart Management to Embrace Complexity

All trends addressed in this introductory chapter justify the need to approach destination management from a different perspective. It is about taking advantage of all the opportunities that investing in and adopting technological innovations may provide, applying them to enhance tourism destination governance, to transforming

destinations into better places for tourists and residents, as discussed in the box below by the World Travel and Tourism Council.

Challenges and opportunities for destination managers in the twenty-first century.

In 2022, Travel and tourism accounted for one in 11 jobs worldwide and contributed US\$7.7 trillion to the global economy. The sector is forecast to inject US\$15.5 trillion into the economy, globally, over the next 10 years. With the sector's significant contribution to global employment and GDP, it is crucial to address the challenges destinations managers may face.

One such challenge is meaningful community engagement. Local communities are integral to the travel experience – they not only welcome tourists, but they also run and support local businesses. Including local communities in decision-making is key as is forging public-private-community partnerships where each stakeholder is equally valued and respected. Through collaboration, destination managers can foster effective long-term relationships for sustainable and inclusive growth.

Another challenge to consider is environmental and social sustainability. Destination managers face many challenges as they work to meet the Paris Agreement goals, achieve and maintain Nature Positive Tourism, and promote inclusion. To address these issues, destination managers can leverage resources like WTTC's Net-Zero Roadmap, Hotel Sustainability Basics initiative, Nature Positive Toolkit, and Diversity & Inclusion guidelines. These tools can equip destinations with the knowledge and strategies to tackle these pressing issues head-on.

One example of a destination that has taken the community on board as it acts as a Guardian of Nature is Rwanda. Through its Sustainable Development Policy, Rwanda has revolutionised green and rural tourism, championed biodiversity conservation, eradicated single-use plastic bags, and safeguarded the critically endangered mountain gorilla. In fact, 10% of the revenue from gorilla permits directly funds human-centred initiatives such as water access, health centres, and schools in neighbouring towns. The ongoing protection of the gorillas also provides locals with lucrative employment opportunities, further empowering the community to thrive.

Destination managers must navigate these challenges nimbly and with finesse. By fostering collaboration, embracing sustainability, and championing community empowerment, these visionaries will shape the future of this thriving sector.

Maribel Rodríguez,
General Manager Spain
World Travel and Tourism Council (WTTC)

Destinations should become more accessible, more sustainable, and ultimately more competitive. Sharma et al. (2023) called on governments across the globe to design and instrument policies oriented to lessen the digital gap and improve standardization. Certainly, together with meeting the UN Sustainable Development Goals, filling the digital gap, at public and private organizations, is one of the main challenges we must face in the coming years. In this context, the model for smart strategic tourism management described in this manual comes in full force. The model is aligned with the concept of a smart city but surpasses it: It considers among its objectives not only the improvement of the citizens' quality of life but also the amelioration of the tourist experience in the destination (López de Ávila Muñoz & García Sánchez, 2013). This is how "smart tourism destinations" are defined to increase the competitiveness of destinations: (1) By incorporating innovation and technology as driving levers for more effective, transparent, cooperative, and

participatory governance; (2) by committing to sustainability; (3) by providing universal accessibility and quality tourist experiences, (4) to improve the well-being of the resident population, and (5) to preserve the tangible and intangible natural and cultural heritage (Shafiee et al., 2022).

The Model for Smart Strategic Management discussed in this manual, the DTI (*Destinos Turísticos Inteligentes*) Model, headed by the Secretary of State for Tourism, has been designed and developed by SEGITTUR, the Spanish State Public Company for the Management of Innovation and Tourism Technologies. SEGITTUR is wholly owned by the Spanish government, under the aegis of the Secretariat of State for Tourism, and ascribed to the Ministry of Industry, Energy and Tourism in 2012. Within the Ministry of Industry, Commerce and Tourism, the Secretary of State for Tourism uses SEGITTUR as a tool to oversee the promotion of innovation in the Spanish tourism sector. As chapter “Methodological Framework of the Spanish Smart Tourism Destinations Model” describes, the DTI Model is a strategic management model that considers five fundamental pillars which structure the smart management of tourism destinations: innovation, technology, governance, sustainability, and accessibility. Through these five pillars, the model states the objectives to attain, which are specified in requirements and progress indicators, to support destinations in addressing the digital transition that is needed to face the challenges and trends raised earlier. The five DTI Management Model pillars correspond to strategic working areas acknowledged by academics, destination managers, and international institutions as some of the main strategic spheres of action in which to work to achieve a more competitive and sustainable tourism sector. Sergio Guerreiro, Senior Director at Turismo de Portugal, shares in the following box his concerns about the relevance of innovation, digitalization, and a better qualification of tourism sector human resources as main leverages for achieving a more sustainable and smarter tourism management.

Addressing challenges for a better tourism

The tourism industry recovered quickly from the biggest crisis in its history as a global industry. However, it is wrong to think that all challenges have been overcome.

In fact, in addition to the impact of two hard years on companies and destinations, the post-pandemic era brought new challenges, such as the war in Ukraine, rising inflation and rising interest rates that affect household income, but there are also other challenges that are here to stay.

As tourism accelerated growth after the pandemic, a growing demand has emerged for skilled workers to meet the needs of travellers. This shortage is particularly evident in certain roles such as hospitality and typical tourism jobs, making it crucial for businesses to find innovative ways to attract and retain talent.

Another challenge is the need for digital skills and the digital transformation of the industry. With the pace of technology developments and the rise of online bookings, mobile apps, and personalised experiences, tourism businesses must adapt to the digital landscape to remain competitive. This requires investing in digital infrastructure, training employees in digital skills, and leveraging technologies like artificial intelligence and big data analytics to enhance customer experiences.

Finally, there is the challenge of sustainability. In Portugal, sustainability has been at the core of our tourism strategy since 2017, and many efforts have been made in this area. It is

an area that requires investment, knowledge, and partnerships, but, above all, a profound change of mindset.

Following the pandemic, travellers have become increasingly conscious of their environmental impact and are looking for sustainable and responsible tourism alternatives. Businesses need to adopt eco-friendly practices, promote local cultures and communities, and minimise their carbon footprint to contribute to international commitments in this field and appeal to the growing segment of environmentally conscious travellers.

In the face of these challenges and trends, innovation plays a crucial role in transforming businesses and destinations. Embracing innovative technologies, such as virtual reality and augmented reality, can enhance the visitor experience. Adopting innovative business models and diversifying offerings can help businesses adapt to changing consumer preferences. Additionally, collaboration between industry stakeholders, governments and communities can foster innovation and drive sustainable growth.

Innovation holds the key to transforming the tourism industry, creating memorable experiences for travellers, and ensuring a sustainable future for businesses and destinations.

Sérgio Guerreiro

Senior Director, Knowledge Management & Innovation at Turismo de Portugal

Figure 1 describes how technology, digitalization, and innovation are strategic tools to improve efficiency, transparency, and public/private collaboration in the governance of destinations. The overall objective is to facilitate the preservation of and accessibility to destination resources, through sustainable management, and to improve the competitiveness of tourism destinations, by promoting the well-being of both tourists and the host communities.

Readers will read in the following chapters how the various challenges that were identified above, from climate change to labour issues, are addressed across the various action areas specified in the DTI model. Each action area is developed into a set of requirements that address measures to manage tourism. This manual was designed to share the visionary efforts that are being made in Spain to address

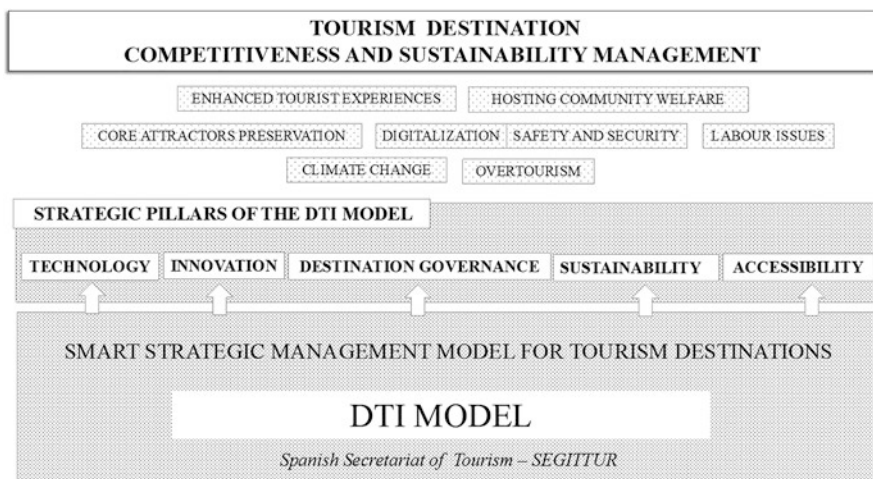


Fig. 1 Current challenges for tourism destinations management and the DTI model for Smart Tourism Management

today's challenges and to help shape and foster better tourism for tomorrow. We hope you will find it useful and that it will serve as a starting point to lead transformative thinking and innovative management in your respective destinations.

References

- Andrades, L., Sánchez-Rivero, M., & Pulido-Fernández, J. I. (2014). Tourism destination competitiveness from a demand point of view: An empirical analysis for Andalusia. *Tourism Analysis*, 19(4), 425–440. <https://doi.org/10.3727/108354214X14090817031035>
- Antonova, N., Ruiz-Rosa, I., & Mendoza-Jiménez, J. (2021). Water resources in the hotel industry: A systematic literature review. *International Journal of Contemporary Hospitality Management*, 33(2), 628–649. <https://doi.org/10.1108/IJCHM-07-2020-0711>
- Bertocchi, D., Camatti, N., Giove, S., & van der Borg, J. (2020). Venice and overtourism: Simulating sustainable development scenarios through a tourism carrying capacity model. *Sustainability*, 12(2), 512. <https://doi.org/10.3390/su12020512>
- Buck Tawney, C. (2020). Urban tourism economies and the global commodification of place: Typologies of shopping streets in Tokyo and New York City. Indexed 2023-05-20. Ph.D. Thesis, Pratt Institute. ProQuest™ Dissertations & Theses Citation Index.
- Buckley, R. (2023). Economic value of tourism through human capital gains. *Journal of Travel Research*, 62(8), 1864–1868. <https://doi.org/10.1177/00472875221146782>
- Butler, R. W., & Dodds, R. (2022). Overcoming overtourism: A review of failure. *Tourism Review*, 77(1), 35–53. <https://doi.org/10.1108/TR-04-2021-0215>
- Camillieri, M. A., Troise, C., & Morrison, A. M. (2023). Motivations and commitment to work in the hospitality industry: Investigating employee psychology and responsible organizational behaviors. *Tourism Review*, 79(1), 85–103. <https://doi.org/10.1108/TR-12-2022-0611>
- Crespi-Vallbona, M., Noguer-Juncà, E., Louzao, N., & Coromina, L. (2023). Barcelona hotel employees and their conception of fair work. An exploratory study. *Equality, Diversity and Inclusion*, 42(9), 56–74. <https://doi.org/10.1108/EDI-08-2022-0232>
- Della Lucia, M., Dimanche, F., Giudici, E., Camargo, B. A., & Winchenbach, A. (2021). Enhancing tourism education: The contribution of humanistic management. *Humanistic Management Journal*, 6, 429–449. <https://doi.org/10.1007/s41463-021-00111-3>
- Denley, T. J., Woosnam, K. M., Ribeiro, M. A., Boley, B. B., Hehir, C., & Abrams, J. (2020). Individuals' intentions to engage in last chance tourism: Applying the value-belief-norm model. *Journal of Sustainable Tourism*, 28(11), 1860–1881. <https://doi.org/10.1080/09669582.2020.1762623>
- Dimanche, F., & Perzyna, M. (2024). Diversity, equity, and inclusion management in the Canadian hospitality industry. In A. Manoharan, J. M. Madera, & M. Singal (Eds.), *Handbook of diversity, equity, and inclusion management in the hospitality industry*. Routledge.
- Elsharnouby, T. H., & Elbanna, S. (2021). Change or perish: Examining the role of human capital and dynamic marketing capabilities in the hospitality sector. *Tourism Management*, 82, 104184. <https://doi.org/10.1016/j.tourman.2020.104184>
- Fatorić, S., & Seekamp, E. (2017). Securing the future of cultural heritage by identifying barriers to and strategizing solutions for preservation under changing climate conditions. *Sustainability*, 9, 2143. <https://doi.org/10.3390/su9112143>
- Formica, S., & Sfodera, F. (2022). The great resignation and quiet quitting paradigm shifts: An overview of current situation and future research directions. *Journal of Hospitality Marketing & Management*, 31(8), 899–907. <https://doi.org/10.1080/19368623.2022.2136601>
- Gabarda-Mallorquí, A., Garcia, X., Fraguell, R. M., & Ribas, A. (2022). How guest profile and tourist segment explain acceptance of economic-based water-saving measures. A Mediterranean

- destination case study. *Journal of Hospitality and Tourism Management*, 52, 382–391. <https://doi.org/10.1016/j.jhtm.2022.07.019>
- Garanti, Z. (2023). Value co-creation in smart tourism destinations. *Worldwide Hospitality and Tourism Themes*, 15(5), 468–475. <https://doi.org/10.1108/WHATT-06-2023-0070>
- Goel, P., Kaushik, N., Sivathanu, B., Pillai, R., & Vikas, J. (2022). Consumers' adoption of artificial intelligence and robotics in hospitality and tourism sector: Literature review and future research agenda. *Tourism Review*, 77(4), 1081–1096. <https://doi.org/10.1108/TR-03-2021-0138>
- Gössling, S., Scott, D., Hall, C. M., Ceron, J.-P., & Dubois, G. (2012). Consumer behaviour and demand response of tourists to climate change. *Annals of Tourism Research*, 39(1), 36–58. <https://doi.org/10.1016/j.annals.2011.11.002>
- Haxton, P., & Camacho, M. (2023, July). *The return of the tourists: Regions rethinking attractiveness and sustainability*. OECD-Cogito. Insights on Entrepreneurship, SMEs, Tourism, Regions and Cities. <https://oecdcoogito.blog/2023/07/04/the-return-of-the-tourists-regions-rethinking-attractiveness-and-sustainability/>
- Hsu, A. Y. C., King, B., Wang, D., & Buhalis, D. (2016). In-destination tour products and the disrupted tourism industry: Progress and prospects. *Information Technology & Tourism*, 16, 413–433. <https://doi.org/10.1007/s40558-016-0067-y>
- Jiang, G., Li, Y., Ruan, W., & Zhang, S. (2023). Relieving tourist anxiety during the COVID-19 epidemic: A dual perspective of the government and the tourist destination. *Current Issues in Tourism*, 27, 1095–1110. <https://doi.org/10.1080/13683500.2023.2198118>
- Juvan, E., & Dolnicar, S. (2017). Drivers of pro-environmental tourist behaviours are not universal. *Journal of Cleaner Production*, 166, 879–890. <https://doi.org/10.1016/j.jclepro.2017.08.087>
- King, C., Madera, J. M., Lee, L., Murillo, E., Baum, T., & Solnet, D. (2021). Reimagining attraction and retention of hospitality management talent: A multilevel identity perspective. *Journal of Business Research*, 136, 251–262. <https://doi.org/10.1016/j.jbusres.2021.07.044>
- Konuk, F. A. (2019). The influence of perceived food quality, price fairness, perceived value and satisfaction on customers' revisit and word-of-mouth intentions towards organic food restaurants. *Journal of Retailing and Consumer Services*, 50, 103–110. <https://doi.org/10.1016/j.jretconser.2019.05.005>
- Lacmanovic, S., & Milec, D. (2018). The relevance and distribution of certified B corporations in the European Union economy. In R. Veselica, G. Dukic, & K. Hammes (Eds.), *36th international scientific conference on economic and social development: Building resilient society* (pp. 337–346).
- Lamprey, A. M. (2021). Tourism, ecosystems, biodiversity and threats. In D. L. Sparks (Ed.), *The blue economy in Sub-Saharan Africa*. Routledge.
- Lin, M., Ling, Q., Zhang, L., Cui, X., & Zhang, Z. (2022). The effects of manager role stress on job thriving of both employees and managers through empowering leadership. *Tourism Management*, 92, 104545. <https://doi.org/10.1016/j.tourman.2022.104545>
- Liu, X., & Wang, W. (2023). REVENGE travel: Fact or myth? *Current Issues in Tourism*, 1–17. <https://doi.org/10.1080/13683500.2023.2220956>
- López de Ávila Muñoz, A., & García Sánchez, S. (2013). Destinos turísticos inteligentes. *Deusto Business Review*, 224, 61–69. <https://www.harvard-deusto.com/destinos-turisticos-inteligentes>
- Ludvigsen, J. A. L., & Parnell, D. (2023). Redesigning the games? The 2020 Olympic Games, playbooks and new sports event risk management tools. *Managing Sport and Leisure*, 28(4), 442–454. <https://doi.org/10.1080/23750472.2021.1928538>
- McBride, J., & Manno, M. (2021, December). *The economics of hosting Olympic Games*. Council on Foreign Relations. <https://www.cfr.org/background/economics-hosting-olympic-games>
- McClinchey, K., & Dimanche, F. (2023). Discourses of fear in online news media: Implications for perceived risk of travel. *Tourism and Hospitality*, 4(1), 148–161. <https://doi.org/10.3390/tourhosp4010009>
- Meenakshi, N., Dhir, A., Mahto, R. V., Nicolau, J. L., & Kaur, P. (2023). Travelers' coping strategies in the backdrop of revenge tourism. *Journal of Travel Research*. <https://doi.org/10.1177/00472875231193596>

- Mendoza, E., Ferrero, G., March Slokar, Y., Amores, X., Azzellino, A., & Buttiglieri, G. (2023). Water management practices in Euro-Mediterranean hotels and resorts. *International Journal of Water Resources Development*, 39(3), 485–506. <https://doi.org/10.1080/07900627.2021.2015683>
- Neuhofner, B., Buhalis, D., & Ladkin, A. (2015). Smart technologies for personalized experiences: A case study in the hospitality domain. *Electronic Markets*, 25, 243–254. <https://doi.org/10.1007/s12525-015-0182-1>
- O'Connor, P. (2023). Small- and medium-sized tourism enterprises and smart tourism: Tourism Agenda 2030 perspective article. *Tourism Review*, 78(2), 339–343. <https://doi.org/10.1108/TR-09-2022-0431>
- Oliveira, B. M., Boumans, R., Fath, B. D., & Harari, J. (2022). Socio-ecological systems modeling of coastal urban area under a changing climate. Case study for Ubatuba, Brazil. *Ecological Modelling*, 468, 109953. <https://doi.org/10.1016/j.ecolmodel.2022.109953>
- Ozdemir, O., Dogru, T., Kizildag, M., & Erkmén, E. (2023). A critical reflection on digitalization for the hospitality and tourism industry: Value implications for stakeholders. *International Journal of Contemporary Hospitality Management*, 35(9), 3305–3321. <https://doi.org/10.1108/IJCHM-04-2022-0535>
- Park, H., Lee, M., & Back, K.-J. (2023). A critical review of technology-driven service innovation in hospitality and tourism: Current discussions and future research agendas. *International Journal of Contemporary Hospitality Management*, 35, 4502–4534. <https://doi.org/10.1108/IJCHM-07-2022-0875>
- Pellaton, R., Lellei-Kovács, E., & Báldi, A. (2022). Cultural ecosystem services in European grasslands: A systematic review of threats. *Ambio*, 51, 2462–2477. <https://doi.org/10.1007/s13280-022-01755-7>
- Pellegrini, M., Machado-Padilla, A. C., Binotto, E., Casarrotto, E. L., Conceiã, J. P., Silva, J., Hoff, D. N., & Souza, M. (2023). Environmentally sustainable: How are the practices in the organic food tourist route? *Heliyon*, 9, e17546. <https://doi.org/10.1016/j.heliyon.2023.e17546>
- Rodríguez-López, M. A., Alcántara-Pilar, J. M., Del Barrio-García, S., & Muñoz-Leiva, F. (2020). A review of restaurant research in the last two decades: A bibliometric analysis. *International Journal of Hospitality Management*, 87, 102387. <https://doi.org/10.1016/j.ijhm.2019.102387>
- Shafiee, S., Ghatari, A. R., Hasanzadeh, A., & Jahanyan, S. (2022). Smart tourism destination: A systematic review. *Tourism Review*, 76(3), 505–528. <https://doi.org/10.1108/TR-06-2019-0235>
- Sharma, M., Gupta, R., Sehrawat, R., Jain, K., & Dhir, A. (2023). The assessment of factors influencing Big Data adoption and firm performance: Evidences from emerging economy. *Enterprise Information Systems*, 17, 2218160. <https://doi.org/10.1080/17517575.2023.2218160>
- Şimşek, E. K., & Kalıpçı, M. B. (2023). A bibliometric study on higher tourism education and curriculum. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 33, 100442. <https://doi.org/10.1016/j.jhlste.2023.100442>
- Smith, R. D. (2006). Responding to global infectious disease outbreaks: Lessons from SARS on the role of risk perception, communication and management. *Social Science & Medicine*, 63(12), 3113–3123. <https://doi.org/10.1016/j.socscimed.2006.08.004>
- Solazz, G., Maruccia, Y., Lorenzo, G., Elia, G., Del Vecchio, P., & Ndou, V. (2020). Extracting insights from big social data for smarter tourism destination management. In *15th international forum on knowledge asset dynamics (IFKAD) - Knowledge in digital age* (pp. 1766–1782).
- Sustacha, I., Baños-Pino, J. F., & Del Valle, E. (2023). The role of technology in enhancing the tourism experience in smart destinations: A meta-analysis. *Journal of Destination Marketing & Management*, 30, 100817. <https://doi.org/10.1016/j.jdmm.2023.100817>
- United Nations. (2015). The sustainable development agenda. Retrieved from: <https://www.un.org/sustainabledevelopment/development-agenda/>
- Wesley, S. C., Jackson, V. P., & Lee, M. (2017). The perceived importance of core soft skills between retailing and tourism management students, faculty and businesses. *Employee Relations*, 39(1), 79–99. <https://doi.org/10.1108/ER-03-2016-0051>

- Winchenbach, A., Hanna, P., & Miller, G. (2019). Rethinking decent work: The value of dignity in tourism employment. *Journal of Sustainable Tourism*, 27(7), 1026–1043. <https://doi.org/10.1080/09669582.2019.1566346>
- World Economic Forum (WEF). (2008). The travel and tourism competitiveness report 2008: Balancing economic development and environmental sustainability. Retrieved from http://www3.weforum.org/docs/WEF_TravelTourismCompetitiveness_Report_2008.pdf.
- World Economic Forum (WEF). (2009). *The travel and tourism competitiveness report 2009: Managing in a time of turbulence*. Retrieved from http://www3.weforum.org/docs/WEF_GCR_TravelTourism_Report_2009.pdf.
- World Economic Forum (WEF). (2011). *The travel and tourism competitiveness report 2011: Beyond the downturn*. Retrieved from http://www3.weforum.org/docs/WEF_TravelTourismCompetitiveness_Report_2011.pdf.
- World Economic Forum (WEF). (2013). *The travel and tourism competitiveness report: Reducing barriers to economic growth and job creation*. Retrieved from <http://www.weforum.org/reports/travel-tourism-competitiveness-report-2013>.
- World Economic Forum (WEF). (2015). *The travel and tourism competitiveness report: Growth through shocks*. Retrieved from <http://reports.weforum.org/travel-andtourism-competitiveness-report-2015/>.
- World Economic Forum (WEF). (2017). *The travel and tourism competitiveness report: Paving the way for a more sustainable and inclusive future*. Retrieved from: https://www3.weforum.org/docs/WEF_TTCR_2017_web_0401.pdf
- World Economic Forum (WEF). (2019). *The travel and tourism competitiveness report: Travel and Tourism at a Tipping Point*. Retrieved from: https://www3.weforum.org/docs/WEF_TTCR_2019.pdf
- World Economic Forum (WEF). (2022). *Travel & Tourism Development Index 2021: Rebuilding for a sustainable and resilient future*. Retrieved from: https://www3.weforum.org/docs/WEF_Travel_Tourism_Development_2021.pdf
- WTTC. (2021). Global guidelines for Safe and Seamless Traveller and Journey. A global effort: the adoption of innovative technologies to enable seamless travel. <https://wttc.org/Portals/0/Documents/Reports/2021/SSTJ-Biometrics%20and%20Digital%20Identity%20Global%20Guidelines.pdf?>
- WTTC. (2022, August). *Travel and tourism economic impact 2022*. Global Trends. <https://wttc.org/Portals/0/Documents/Reports/2022/EIR2022-Global%20Trends.pdf>
- Yu, J., Park, J., & Hyun, S. S. (2021). Impacts of the COVID-19 pandemic on employees' work stress, well-being, mental health, organizational citizenship behavior, and employee-customer identification. *Journal of Hospitality Marketing & Management*, 30(5), 529–548. <https://doi.org/10.1080/19368623.2021.1867283>
- Zebryte, I., & Jorquera, H. (2017). Chilean tourism sector “B Corporations”: Evidence of social entrepreneurship and innovation. *International Journal of Entrepreneurial Behavior & Research*, 23(6), 866–879. <https://doi.org/10.1108/IJEBR-07-2017-0218>
- Zheng, D., Luo, Q., & Ritchie, B. W. (2021). Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic “travel fear”. *Tourism Management*, 83, 104261. <https://doi.org/10.1016/j.tourman.2020.104261>

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Origin of the Spanish Smart Tourism Destinations Program



María Velasco-González

You make the path as you walk (verse from the poetry of Antonio Machado, translated by an English poet).

Abstract This chapter traces the development of the Smart Tourism Destinations program. We propose understanding the programme as the result of the convergence of two lines of work of the Spanish central government's tourism administration: on the one hand, the development of tourism quality systems and their approach of working with indicators and, on the other hand, the design and implementation of programmes aimed at improving destination management. The development of the programmes relates to the spread of new concepts, such as total quality, or new programmes in other areas of public policy such as Agenda 21 for local sustainability. This chapter is structured from a historical perspective. The analysis allows for reaching several conclusions: firstly, that the government plays a major role in the promotion of innovative tools, or at least it has done so in terms of destination management; secondly, that the development of public policy programmes is more successful if it is based on the hybridization of ideas that arise from different contexts; and finally, that programmes experience more interesting and lasting growth if what they propose is useful to the parties to whom they are directed. These three characteristics are all fulfilled by the Smart Tourism Destinations program.

1 Introduction

Today, the Smart Tourism Destinations program is a successful initiative in Spanish tourism policy. The program helps destination decision-makers to become aware of their level of development and efficiency with respect to five variables that are

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considered central to progress towards being a sustainable tourism destination: governance, innovation, technology, sustainability, and accessibility.

The Smart Tourism Destinations program can be looked at from various perspectives in order to analyse and discuss its structure and components. In this chapter, we use a historical perspective to understand the context that gave rise to the program and some key concepts to help us frame it.

The program traces its origins to the tourism policy of the Spanish central government, specifically in two key elements that have become standard lines of action of this policy. In the first place, there is the idea of destinations and destination management. In a series of successive approaches, public programs have placed the destination and its management in a central position in the tourism ecosystem, moving beyond the initial idea that they were simply settings in which tourism activity and its associated impact occurred. Secondly, there is the idea of a system of indicators, which emerged at the same time, tied to the expansion of quality systems in the private sphere and program evaluation in the public sphere (Scriven, 1980). Indicator systems became a work methodology that would be very useful for further innovation in management processes and the incorporation of new values into organizational cultures. This is of extreme value for public policy, whose central objective is to change behaviours and processes in the direction of new models that are more in line with the values that are becoming embedded in society (Peters, 2015).

This chapter uses a historical perspective that looks at a broad time frame and uses the heuristic method, selecting primary sources that will allow us to observe how new concepts appear and how the current Smart Tourism Destinations program is taking shape.

2 In the Beginning, It Was About Quality

Monitoring the efficiency of work processes emerged from manufacturing during the industrial revolution and evolved during the twentieth century. In addition to the first control systems, advances in statistics and developments in strategic planning were incorporated—in particular the concept of stages, which would be central to the design of quality systems (Evans and Lindsay, 1999). In the 1980s, for the first time, quality-related thinking and practices moved from the product sphere to the service sphere (Rosander, 1989), and it is in this context that they reached the tourism sector. As is the case with other values that germinate and develop in different social spaces, so too it was during this period that they appeared in tourism policy.

In those years, the Spanish government designed and implemented a tourism policy that was set out in a document called *Plan Futures (1992–1996)*. It was the first tourism policy document following the passing of the Spanish constitution. Since the end of the dictatorship, tourism policy had been handed over to the autonomous regions, and the central government did not have a space of its own. However, the sector was calling for a public policy that would boost the activity, and this boost ultimately resulted from a change in the perception of tourist activity itself: tourism

grew to be seen as yet another industrial sector, which would make it possible to talk about improving competitiveness from a broad point of view that included the social, cultural, and environmental context (Velasco, 2004).

The document already contained nearly 100 mentions of the concept of quality, almost always linked to the idea of competitiveness and the price-quality ratio. Reflecting on the competitiveness of the tourism industry, it states:

Competitiveness [...] will obviously depend both on all the functions inherent to the scope of the company [...], and on the institutional framework in which the company operates and on infrastructures. This approach therefore goes beyond the classic concept of competitiveness, which is univocally linked to productivity and price, and links competitiveness to the capacity to innovate and the philosophy of total quality or excellence (Secretaría General de Turismo, 1992, p. 15).

Quality is thus associated, for the most part, with work processes in the private sector. However, it also points out that an improvement in quality will eventually lead to an improvement in the welfare of the host societies, in particular through the impact it would have on improving employment.

[...] Host societies are calling for some overall benefit to compensate for the various costs that tourism entails. In many cases, this benefit is of a cultural and social nature and is largely determined by the quality of the design, production, distribution and after-sales services of the tourist product. Quality in the tourist product also means the use of sophisticated inputs, including highly skilled and highly paid labour (Secretaría General de Turismo, 1992, p. 59).

At this initial stage, it was felt that the private sector was responsible for designing the quality system, and that the role of the government was to focus on promoting and stimulating it. With this objective in mind, a financing Agenda was launched to support the execution of quality implementation projects, subsidizing 25% of the cost.

This sub-Agenda was undertaken by supporting the creation of a quality system by the private sector, with companies themselves defining standards and establishing controls. The system would be based on the prestige it would gain and on the voluntary nature of its use. Support was also given to companies specializing in the provision of professional quality diagnostics and quality development services (Secretaría General de Turismo, 1992, p. 86).

In the *Plan Futures 1992–1996*, the idea of quality applied to the destination also appears for the first time—at that time regarded more as a scenario where action took place than as an ecosystem of stakeholders with its own rules. The tourism policy states that a central element in the competitiveness of destinations is to have an “environment that respects nature and a quality habitat” (Secretaría General de Turismo, 1992, p. 112).

Even more relevant to the subject of this paper, 30 years ago, it was proposed that if the destination met certain requirements, it would be considered an “Excellent Tourism Destination” and that this would entail some sort of incentive for the destination, such as exclusive promotion abroad.

When a tourism destination combines a habitat that respects tourist resources (improved aesthetics and urban planning, elimination of noise and environmental

pollution, etc.), and modernized establishments adapted to the quality requirements of the market, it can be defined as an “Excellent Tourism Destination” and, therefore, it will be eligible for special promotion Agendas abroad (Secretaría General de Turismo, 1992, p. 113).

The second version of this policy, contained in the document *Plan Futures II 1996–1999*, already contains two separate lines of action: one for developing tourism quality systems and its proposal of working with indicators, and the other for the design and implementation of Agendas aimed at improving destination management.

Thus, the *FUTURES Quality* Agenda encompasses three lines of action: developing quality systems for each specific tourism sub-sector, promoting an advisory Agenda and financing an Agenda for modernizing equipment, organized by means of a range of subsidies and subsidized loans for renovating private tourist accommodation and facilities. The *FUTURES Tourism Destinations* Agenda seeks to “promote a dynamic confluence of public and private actions aimed at improving the tourist attractions of the destination. The aim is to create processes with the active participation of all actors involved, each acting in their own area, but under the principle of co-responsibility” (Secretaría General de Turismo, 1996, p. 63).

This Agenda already describes, albeit in terms from another era, the elements that are still central to today’s Smart Tourism Destinations Agenda.

For a destination to offer a quality product, not only must the products offered by the private sector (accommodation, catering, entertainment...) be of high quality, but a wide range of public services related to transport, hospitality, environmental quality, safety, etc. must also be provided at a high level of quality. On the basis of this analysis, the Tourism Destination Agenda is seen as an instrument for addressing the problems of a given destination from a global perspective, integrating all the elements that converge there (Secretaría General de Turismo, 1996, p. 63).

3 The Entrepreneurial State: Tourism Policy as an Impetus for Indicator-Based Management and Integrated Destination Management

In the first phase of tourism policy described above, it was proposed that the private sector should define the quality systems to be applied to the tourism sector, establishing standards and thresholds for compliance. In the year 2000, a new tourism policy was introduced in the document *Comprehensive Plan for the Quality of Spanish Tourism (PICTE)* (Secretaría de Estado de Comercio, Turismo y Pyme, 2000), which changed the criteria and made the State the central driving force, at the request of the private sector itself. Issue 139 of the 1999 edition of the Journal of Tourism Studies is devoted entirely to quality (Revista de Estudios Turísticos, 1999). The initial article, written by a person from the Ministry, explains:

The Spanish Tourism Quality Plan (PICTE) designed by the Secretary of State for Trade, Tourism and SMEs basically involves the development of a common methodology for all

tourism subsectors involved in improving the quality of their products and services, and institutional backing for the implementation of the Spanish Tourism Quality Brand. The aim is to respond to the requests made by the Business Associations and Federations of the Sector to this Administration, asking for financial and technical assistance to develop and implement quality standards of voluntary application (Navarro de Vega, 1999, p. 6).

The PICTE proposed the creation of quality assurance systems in various tourism subsectors and of a single brand for tourism quality (Spanish Tourism Quality Brand) and to support the participation of Spanish business organizations in international standardization bodies.

From that moment on, two different initiatives were launched at the same time in order to advance in the implementation of quality in Spanish tourism. Firstly, the Spanish Tourism Quality Institute (ICTE) was created, a private organization set up by the associations of different tourism subsectors to promote quality systems in companies in their respective fields. With this aim, the ICTE contributed to the processes of standardization (creation, development, and revision of tourism quality standards), certification, and training. This means providing the tourism sector with a solid quality structure and promoting a culture of quality in the sector as a whole. But quality had already been incorporated into the market, being a professionalized field that generates service providers and an exchange structure outside of a public policy; so, secondly, another tool was created and promoted, more closely linked to the idea of public policy, which would be free of charge and aimed at destination managers whose main objective is to raise awareness and create networks of stakeholders. This tool was the Spanish Integrated Tourism Quality System in Destinations (SICTED) Agenda, which aims to achieve a homogeneous level of quality in the services offered to tourists in a destination and offers tools for the integrated management of destination quality, recognizing, but not certifying, those tourism services that exceed the established requirements. The SICTED methodology was developed in 2000–2001 and has been implemented in different phases, progressing until the present day.

The *Comprehensive Plan for the Quality of Spanish Tourism (PICTE)* also seeks to promote destination management Agendas, implementing some initiatives and incorporating others that had been created in the previous stage.

Tourists choose their holidays according to the destination, so this is a basic level of action if we want to improve the quality of the Spanish tourist attractions as a whole [...] The destination is more than the sum of its tourist companies; it involves the services provided by public agents, the attitude of the residents, the shops, the facilities and infrastructures, the environment, etc. (Secretaría de Estado de Comercio, Turismo y Pyme, 2000, p. 41).

With this idea in mind, the creation of *integrated tourism management models was proposed*, although a concrete programmatic development had not yet been found. However, another line of work emerged which would end up having an impact on destination management.

The United Nations Conference on Environment and Development, held in 1992 and known as the Rio Summit, called for environmental preservation to be considered in any development initiative, and one of the Agendas arising from it was Program 21, which would become Agenda 21 at the local level. Furthermore, the

fifth Framework Program of the European Union considered tourism to be one of the five key sectors on which action had to be taken for the protection of the environment, specifying various problematic aspects (land use, illegal construction, automobiles, noise, water, atmospheric emissions, risk of vulnerable areas, etc.). With this objective in mind, it was decided to push for the implementation of an Environmental Management System in tourism municipalities, taking as a model the one designed in a Community Regulation and called the Community Eco-Management and Audit Scheme (EMAS),¹ and in 1998 the *Green Municipality Project* began, which was carried out in partnership with the Spanish Federation of Municipalities and Provinces. This project brought together, for the first time, local tourism managers and local environmental managers.

In the following tourism policy document, the *Spanish Tourism Plan Horizon 2020* (2008–2012), all the aforementioned lines of action were maintained, but a specific program for the planning and management of destinations was also incorporated, with the following objective:

Promoting the application of new methodologies and criteria for the planning and management of tourism destinations based on public-private joint responsibility, capable of integrating and developing a strategic vision of the tourism model that, from a market perspective, considers territorial development, environmental quality, the quality and professionalism of tourist services and social welfare (Secretaría General de Turismo, 2008, p. 122).

All the elements were now in place for the destination to be considered the key element of the ecosystem, and to be done so with a clear perception of the social and environmental surroundings. We also had at this point a context in which indicator-based systems were already in place and functioning. The first steps of the program had been taken.

4 The Encounter Between Models: Sustainable Tourism Municipalities and Smart Destinations

In 2012, a new tourism policy document was approved: the National Integrated Tourism Plan (PNIT) 2012–2015 (Secretaría de Estado de Comercio, Turismo y Pyme, 2000). In it, the concept of the Smart Tourism Destination appears for the first time.

[...] this measure aims to establish the appropriate mechanisms that allow the rapid incorporation of innovation while defining a homogeneous framework, which allows for the technological development of tourism destinations under the concept of Smart Destinations in line with the trend towards the creation of Smart Cities (PNIT, 2012, p. 71).

¹European Council Regulation (EEC) No. 1836/93 of 29 June 1993 allowing voluntary participation by companies in the industrial sector in a Community Eco-Management and Audit Scheme (EMAS).

In 2013, the Ministry of Industry, Energy, and Tourism proposed the creation—within the framework of the Technical Standardization Committee for Smart Cities of the Spanish Association for Standardization and Certification (AENOR)—of the subcommittee on Tourism Destinations (SC5), which would be chaired by the State Society for the Management of Innovation and Tourism Technologies (SEGITTUR). This Committee approved the first definition of a Smart Tourism Destination:

[...] a tourist space that is innovative, accessible to everyone, established through a cutting-edge technological infrastructure that ensures the territory's sustainable development, it facilitates the interaction and integration of the visitors and improves the quality of their experience in the places they visit and also the residents' quality of life (SEGITTUR, 2015).

Between 2014 and 2016, 12 pilot reports were conducted by the Secretary of State for Tourism in four areas: Technology (connectivity, smart infrastructures, sensorization, internet of things), Sustainability (environmental, socio-cultural and economic), Innovation and Accessibility.

But the *National Integrated Tourism Plan (PNIT) 2012–2015* was also making progress on a parallel program: the Sustainable Tourism Destination.

The sustainability of tourism destinations must be ensured first and foremost in their planning. To this end, a tool or method inspired by the European Union's Agenda 21 for sustainable tourism will be implemented to help local authority planners to understand the current situation of their tourism development model, to apply monitoring indicators and to design sustainable tourism action plans that include actions to publicize these attributes (PNIT, 2012, p. 70).

With this idea in mind, the development of the “Sustainable Tourism Destination Method” was proposed, a set of diagnostic and planning tools aimed at improving the sustainability of destinations' tourism development models, which is beginning to be applied to some destinations (Menorca, Cazorla, and Sigüenza). The method proposes working in three phases: diagnosis of the sustainability of tourism in the territory, drawing up and implementing an action plan, and monitoring the actions.

In 2018 it was decided to group both models in a single program, which retains the name of both: the Sustainable and Smart Tourism Destinations (DTSI) program, whose objective is:

[...] to bring together Sustainable Tourism Destinations and Smart Tourism Destinations in a single program, given that the associated methods share methodology and procedures, making the Sustainable and Smart Tourism Destination those destinations that meet the parameters of both, and including within them, as a subset, those that meet the parameters of the Sustainable Tourism Destination or the Smart Tourism Destination, with the medium-term objective that all destinations meet all the parameters of a Sustainable and Smart Tourism Destination (Ministerio de Hacienda, 2018, p. 10).

5 The Last Step... Until Today

The final features of the program were defined at that time, and of particular importance was the incorporation of a fifth pillar into the program which would prove to be pivotal: governance.

The creation and consolidation of the model, from this point onwards, has been intense and has delved into converting the idea of destination management into standards with indicators that make it possible to understand and compare. Several standards are promoted in the Tourism Destinations Committee (CTN 178/SC 5—Tourism Destinations), the most important of which is the UNE 178501 standard—Management System of Smart Tourism Destinations—Requirements, the purpose of which is to:

[...] specify the requirements for establishing, implementing, maintaining and improving a management system for a Smart Tourism Destination that adequately addresses governance, innovation, the use of technologies, universal accessibility and sustainability in such a destination. It is applicable to all types of tourism destinations, regardless of their nature (holiday, urban, rural, etc.), size (municipal or supra-municipal) and the nature of their management body. This standard has been designed to be used independently, although it can be aligned or integrated with other management systems (UNE, 2018).

This is in addition to eight other standards, which are discussed in depth in the next chapter.

1. Indicators and tools for Smart Tourism Destinations (UNE 178502, 2018).
2. Semantics applied to Smart Tourism Destinations (UNE 178503, 2022).
3. Digital smart hotel (HDIC) connected to smart tourism destination or smart city platforms. Requirements and recommendations (UNE 178504, 2019).
4. Framework for the creation of tourism destination websites (UNE 178505, 2022).
5. Methodology for the optimization of search engine positioning (SEO) of tourism destination websites (UNE 178506, 2022).
6. Tourism destinations. Applications of Wi-Fi connection on beaches (UNE 178507, 2022).
7. Tourism Destination applications (apps) model for mobile devices (UNE 178508, 2022).
8. Guide for the implementation of the Smart Destination Platform layer model (UNE 178511, 2023).

The last of the model elements is also created: the network of stakeholders that are implementing the Smart Tourism Destinations model in their destinations. The Network is a space for the exchange of experiences that also serves as an area for sharing best practices and training. The Network is an undeniable strength that allows destination managers to find a space for support which also helps them to progress. Readers will be able to learn in detail about the Network and its operation in chapter “The Spanish Smart Tourism Destination Network: A Nudge to Boost the Adoption of National Tourism Policies”.

6 Conclusions

The Smart Tourism Destinations program did not emerge from a blank piece of paper. It is the result of a journey that combines several elements, of which we will highlight the three that we consider most relevant.

The first is the important role of the Tourism Administration, in this case the Spanish central government, as a promoter and facilitator of change and innovation—innovation that involves new ideas, new processes, and new technologies. Since the 1980s, the Tourism Administration of the Spanish central government has designed various instruments within tourism policy that have had an impact on the functioning of the sector and its dynamics. The Smart Tourism Destinations model is one of them.

The second element that goes back a long way and explains its effectiveness has to do with the expansion of quality systems. The evolution of quality systems has allowed for the development of a working culture based on the creation of indicators. This changed the management models, but even more importantly, it generated a unique system for the transfer of new ideas, knowledge, and innovation processes. The Smart Tourism Destination model has been adding pillars, with the current ones covering the most important dimensions of destination management, but its strength lies in the fact that, as with other quality systems, the construction of indicators allows the participants to understand what the specific objectives are, what the relevant issues are, and how to move forward in the right direction.

The third element, which has also been present in the trajectory of public policies in recent decades, is the growing importance of the Smart Tourism Destination in the tourism ecosystem and, as a result, the importance of improving the model's management. This is a difficult issue due to the weakness of public structures at the municipal level, the cross-cutting nature of the activity, and the complexity of the problems and challenges that arise in Smart Tourism Destinations. The Smart Tourism Destination model and network are not presented as a model that is imposed, but as a path that each destination chooses; furthermore, a strategic and integrated approach is proposed, which combines elements of economic sustainability with others of environmental and social sustainability and requires the involvement of various local players, strengthening governance in the destinations.

References

- Evans, J. R., & Lindsay, W. M. (1999). *The management and control of quality*. South-Western College Pub.
- Ministerio de Hacienda. (2018). *Presupuestos General del Estado. Programa 432A. Coordinación y promoción del turismo*. https://www.sepg.pap.hacienda.gob.es/Presup/PGE2018Proyecto/MaestroDocumentos/PGE-ROM/doc/1/3/19/3/2/7/N_18_A_R_31_120_1_2_3_1432A_C_1.PDF

- Navarro de Vega, A. (1999). Plan de calidad turística española: antecedentes, desarrollo y puesta en marcha. *Estudios Turísticos*, 139, 5–13. https://turismo.janium.net/janium/Objetos/REVISTAS_ESTUDIOS_TURISTICOS/82018.pdf
- Peters, G. B. (2015). *Advanced introduction to public policy*. Edward Elgar Publishing Ltd..
- PNIT (2012). Plan Nacional e Integral de Turismo (2012-2015). Available at: <https://turismo.gob.es/es-es/servicios/Documents/Plan-Nacional-Integral-Turismo-2012-2015.pdf>
- Revista de Estudios Turísticos (1999). Ministerio de Industria y Turismo. Retrieved July, 2023, from <https://estudiosuristicos.tourspain.es/index.php/ET/issue/view/146>
- Rosander, A. C. (1989). *The quest for quality in services*. Quality Press, American Society for Quality Control.
- Scriven, M. (1980). *The logic of evaluation*. Edge Press.
- Secretaría de Estado de Turismo (2000). *Plan Integral de Calidad del Turismo Español (PICTE)*. Ministerio de Economía y Hacienda. Retrieved July 7, 2023, from <https://www.dataestur.es/conocimiento-turistico/planes-nacionales-de-turismo/>
- Secretaría General de Turismo. (1992). *FUTURES 1992–1996*. Ministerio de Industria, Comercio y Turismo. Retrieved July 7, 2023, from <https://www.dataestur.es/conocimiento-turistico/planes-nacionales-de-turismo/>
- Secretaría General de Turismo. (1996). *FUTURES 1996–1999*. Ministerio de Comercio y Turismo. Retrieved July 7, 2023, from <https://www.dataestur.es/conocimiento-turistico/planes-nacionales-de-turismo/>
- Secretaría General de Turismo. (2008). *Plan de Turismo Español Horizonte 2020 (2008–2012)*. Ministerio de Industria, Comercio y Turismo. Retrieved July 7, 2023, from <https://www.dataestur.es/conocimiento-turistico/planes-nacionales-de-turismo/>
- SEGITTUR. (2015). *Informe destinos turísticos: construyendo el futuro (Informe Específico para el Plan Nacional de Ciudades Inteligentes. Agenda Digital para España)*. Ministerio de Industria, Energía y Turismo.
- UNE (2024). UNE 178501:2018. Management system of smart tourist destinations. Requirements. Retrieved July 7, 2023 from <https://www.en.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0060239>.
- UNE (2024) UNE 178502:2018 Indicators and tools of smart tourist destinations. Retrieved July 7, 2023, from <https://www.en.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0068105>
- UNE (2024). UNE 178503:2022 Semantics applied to smart tourism destinations. Retrieved July 7, 2023, from <https://www.en.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0068062>
- UNE 178505: 2022. Framework for the creation of tourist destination websites. Available at: <https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0069881>
- UNE 178506: 2022 Methodology for the search engine optimization (SEO) positioning of tourist destination websites. Available at: <https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0069882>
- UNE 178507: 2022 Tourism destinations. Applications of Wi-Fi connection on beaches. Available at: <https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0069883>
- UNE 178508: 2022 Tourist Destination applications (apps) model for mobile devices. Available at: <https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0069884>
- UNE 178511: 2023 Guide for the implementation of the Smart Destination Platform layer model. Available at: <https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma/?c=N0071352>
- Velasco González, M. (2004). *La política turística. Gobierno y Administración Turística en España (1952–2003)*. Tirant Lo Blanch.

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Part II
**The Method: The Spanish Model for
Smart Tourism Destination Management**

Methodological Framework of the Spanish Smart Tourism Destinations Model



SEGITTUR and Aurkene Alzua-Sorzabal

Abstract The Spanish Smart Tourism Destinations model (DTI Model) has established itself as an indisputable benchmark in terms of public tourism policies, providing a strategic management tool that integrates the main challenges facing tourism destinations and offers guidelines for dealing with them. It is a model developed from the smart city concept, shifting its focus from the resident to the visitor, incorporating elements that go beyond the technological application, such as governance, technology, innovation, or accessibility. The chapter includes the work carried out over the years in terms of standardization, within the CTN178 Technical Standardization Committee, led by SEGITTUR, and which has allowed the publication of a good number of standards related to the Spanish Smart Tourism Destinations model. SEGITTUR's DTI diagnostic methodology consists of 5 pillars (Governance, Innovation, Technology, Sustainability, and Accessibility), which represent the areas on which destinations must work and improve; these pillars are developed throughout 16 areas of action, explicitated into 97 requirements and 261 indicators, which allow the level of performance of the destination to be measured homogeneously and compared with other destinations. Finally, the chapter includes a mention of the relationship between the Spanish Smart Tourism Destinations model and the SDGs and presents the level of implementation of the Sustainable Development Goals (SDGs) at both national and international level.

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1 Introduction

As explained in the previous chapter, the concept of *Smart Tourism Destination* was coined in Spain in the early 2010s and represents progress toward a technological transition in tourism. The *Spanish Smart Tourism Destination*, “*DTI Model*,” emerges as an extension of smart city concepts applied to tourism management (Buhalis & Amaranggana, 2013; Lopez de Avila Muñoz & García Sánchez, 2013). The term refers to a destination that adopts and integrates innovative technologies and data-driven approaches to enhance the overall tourism experience, manage resources sustainably, and enhance the destination’s competitiveness.

As introduced in the previous chapter, the concept of *Smart Tourism Destination* (hereinafter referred to by its Spanish acronym DTI) used for the first time as an instrument at the service of a national public tourism policy, emerged in 2012 as an initiative of the Spanish Secretary of State for Tourism, through the Sociedad Mercantil Estatal para la Gestión de la Innovación y las Tecnologías Turísticas, S.A.M.P. (SEGITTUR). SEGITTUR is the public company responsible for promoting innovation in the Spanish tourism sector, wholly owned by the Spanish Government, under the aegis of the Ministry of Industry, Energy, and Tourism of the Spanish Government, and ascribed to the Ministry of Industry, Energy, and Tourism in 2012 (MINETUR, 2012).

The initiative comes at a very specific time when the Spanish economy has just entered recession and in 2012. After several quarters of decline, GDP fell by 2.9%. This was a complex economic scenario, strongly conditioned by a series of factors such as the severe external financing crisis; the second relapse of the sovereign debt crisis in the Eurozone; the fiscal adjustment measures imposed in Spain; and the strong contraction of domestic demand, both in private and public spending. Despite this, the tourism sector had not stopped growing and contributed to counteracting the adverse conditions by supporting the good performance of foreign demand, highlighting the good performance of the tourism heading, which closed 2012 with the largest global balance of payments surplus for tourism (INE, 2013).

Tourism showed the capacity to play an essential counter-cyclical role in the economy, partially compensating for the poor performance of other economic macroeconomic variables such as the contraction of domestic demand, the traditional Spanish current account deficit or employment. In addition, Spain ranked fourth among the world’s most competitive countries in tourism, according to the Travel & Tourism Competitiveness Report 2013 (World Economic Forum, 2013). In view of this evidence, the Spanish tourism administration identifies the Smart Tourism Destination as an opportunity to give a new boost to Spain’s tourism competitiveness (MINETUR, 2012, p. 71). In an environment marked by large doses of uncertainty, the importance of tourist activity is recognized, both from a socio-economic perspective, considering its contribution to GDP, its capacity to generate foreign exchange and its role as a generator of employment and attractor of investment, and from the perspective of the preservation and enhancement of Spain’s rich natural and cultural heritage.

The DTI program, a pioneer worldwide, in a few years has become the flagship of a new type of instruments at the service of national, regional, and local tourism policy, not only in Spain but also in other latitudes, in the American and Asian continents. At the regional level, it is necessary to mention the significant work carried out by the *Valencian Institute of Tourism Technologies* (INVAT·TUR) in the Region of Valencia, a Spanish Mediterranean region with a strong tourist tradition, located in the southeast of the peninsula. INVAT·TUR launched its Smart Tourism Destinations project in 2013. INVAT·TUR's important contribution is largely attributable to the scientific leadership provided by the *University Tourism Research Institute* [IUIT] of the University of Alicante. In the rest of Spain, regional initiatives in this field have also been identified, which were later incorporated into the project, such as those that emerged in the Basque Country, through Basquetour (the Basque Country's tourism agency), the Region of Murcia or Extremadura.

The DTI model designed in Spain assumes that a large part of the determinants for the development and progress of a country's tourism territory lie in comparative advantages (which are based on existing resources such as climate, landscape, culture, or distance from the main source countries) and competitive advantages (which refer to the capacity to add value to these resources based on service quality, productivity, connectivity, technology, and innovation), which are exploited and develop their potential on a local level (Porter, 1990; Ritchie & Crouch, 2003). The tourism destination is the space in which tourist activity takes place and develops. It is the place where its capacity to satisfy the needs of visitors is put into play, and where, on the basis of existing resources, those existing productive, social, and institutional factors that will make it more competitive must be effectively and efficiently integrated. The Spanish DTI model is a tool that intervenes directly on the physical spaces in which tourist activity takes place, with the aim of improving the overall quality of life in a destination (SEGITTUR, 2015).

It offers a common roadmap, locally applicable, through which municipalities can move and evolve to become more resilient and sustainable destinations. Although the causal relationship between the development of the Spanish Smart Tourism Destinations model and the country's tourism competitiveness has not been proven, a correlation can be seen in the last decade of DTI development, with the country's tourism competitiveness improving from 2013 to 2019. During this period, Spain rose in the World Economic Forum's global tourism competitiveness ranking, becoming the most competitive country in the world (WEF, 2015, 2017, 2019). In 2021, Spain was the European country with the highest score in the Travel & Tourism Development Index (TTDI). The index introduces a new approach to measuring progress in travel and tourism development by modifying the index to include measures of environmental and socio-cultural sustainability. This holistic approach covers 117 countries.

The DTI model incorporates the universal commitment to the 2030 Agenda for Sustainable Development (United Nations, 2015a) with a focus on economic growth and employment (SDG 8), sustainable production and consumption (SDG 12), and marine life (SDG 14). It is a model committed to the construction of tourism

destinations that take into account environmental protection, local well-being, and human development.

A model designed to accompany destination managers in the search for solutions and alternatives that respond to the challenges of the twenty-first century, in contexts of growing uncertainty.

This chapter provides in the following pages an overview of the main methodological aspects that comprise the DTI model. To this end, the chapter has been structured into eight sections that allow the reader to take a tour of the following aspects:

- In this first section, which corresponds to the introduction to the chapter, the historical context in which the model originated, the foundational bases, and the main actors involved in its definition have been described;
- In the second section, the relationship between the concepts of smart city and destination is analyzed;
- In the third section, the work carried out in terms of standardization is presented, within the framework of the work carried out by the Technical Standardization Committee of AENOR, CTN 178 “Smart Cities,” which houses the subcommittee of “Smart Tourism Destinations” [AEN/CTN 178/SC5];
- In the fourth section, the operational definition of DTI is developed, which supports the strategic management methodology of tourism destinations created by SEGITTUR;
- In the fifth section, the DTI methodology itself is described, paying special attention to explaining how the initial diagnosis is made, which serves as the basis for defining the strategic action plan, specific to each destination, to become a DTI destination in the medium term. The transformative capacity of the DTI model will depend to a large extent on the quality of this initial diagnosis since it will reveal the critical areas of action on which destinations must work to achieve compliance with the requirements demanded by the model in its different strategic pillars. This section consists of seven subsections:
 - In the first subsection, the objectives pursued by the DTI methodology are addressed;
 - The second subsection analyzes the ongoing nature of a model that has been shaped over the years by the interaction with the destinations that participate in it, and the current context (post-pandemic, climatic, technological, etc.). A process through which the model has been calibrated to arrive at the current methodological version presented in this manual;
 - In the third subsection, the phases that destinations must go through when they adopt the DTI strategic management model are presented;
 - In the fourth section, the strategic pillars on which the model is structured are introduced;
 - In the fifth subsection, the areas of action defined for each of the pillars are discussed in more detail;
 - In the sixth subsection, the results of the DTI model and the calculations that support it are assessed;

- The seventh and final subsection deals with the different territorial levels to which the model can be applied: tourism destinations that sometimes exceed the administrative limits of the municipality and reach larger territories that group small municipalities under larger administrative names, called in the case of Spain associations of municipalities, counties, islands, provinces, etc.
- The sixth section considers the relationship between the Spanish DTI methodology and its relationship and alignment with the Sustainable Development Goals set out by the United Nations, enabling destinations to meet many of them at the same time as they turn into DTIs;
- The seventh section attempts to highlight the high level of acceptance of the DTI model in Spain by presenting its level of implementation at the national level;
- Finally, the chapter concludes with a last eighth section, which introduces how the DTI methodology is being exported to contexts other than Europe, having been adopted in several Latin American countries, revealing a high potential for future use and transfer. Additional information on this issue is provided in chapter “The Spanish Smart Tourism Destination Network: A Nudge to Boost the Adoption of National Tourism Policies” of the present manual.

2 From the Smart City to the Smart Destination

As anticipated in the previous chapter, the Smart Tourism Destination is influenced by the concept of the smart city or digital city, taking as a starting point the importance of information and communication technologies in urban environments to provide efficient and unassisted public services to residents of cities with growing problems of saturation, environmental pollution, mobility, cleanliness, insecurity, coexistence, etc. The International Telecommunication Union (ITU) defines the smart and sustainable city as “*a smart sustainable city is an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social, environmental as well as cultural aspects*” (ITU, 2021).

However, based on this idea of a digital city, the DTI model develops its own conceptualization, expanding the geographical limits on which it operates, incorporating the visitor as a priority object of attention, without neglecting the resident, and placing technology at the service of the different spheres of action, represented by the other pillars of the DTI model: governance, sustainability, innovation, and accessibility of the destination (AENOR, 2014). In opposition to the city, the destination may or may not correspond exactly to the strict delimitation established by the municipal administrative political division. A tourism destination does not require a minimum number of people to live in it, with many examples of tourism destinations that are built around a certain natural, scenic, or cultural resource that presents a unique shape, such as a beach, a mountain, a valley of cherry trees, or a

Romanesque monastery. A destination can also be made up of a group of municipalities that make up a county, a valley, a certain coastline or that are located on the same island (Borja-Solé et al., 2002; Manente, 2008).

The difference between smart cities and destinations goes beyond their geographical, administrative, or human borders, as discussed by John Mora Williams at the box below. The focus in a smart city is on the provision of public services to citizens who receive the digitalization strategies promoted by public administrations. On the other hand, a smart destination focuses on visitors, tourists, or excursionists who have moved outside their usual residence environments for different reasons, for a specific period to enjoy various tourist services. They can spend the night or not and interact with public and private services at the destination.

2.1 Smart Cities and Smart Tourism

In the current context, cities are undergoing an unprecedented transformation aimed at improving the quality of life of their residents. To a large extent, this process of change has been achieved thanks to the technological modernisation of infrastructures, equipment and public services. The movement of "smart cities" has accelerated the adoption of digital technologies as a key factor in this development, and this has made it possible to improve transport mobility, health services, water and energy supplies, education and leisure.

Although cities and tourism destinations are related, they present different challenges. Cities are larger urban entities that host a wide variety of economic, social and cultural activities, while tourism destinations focus on attracting visitors and offering tourist experiences in an increasingly complex and competitive market.

The cities of the future are reinventing themselves to be more sustainable and efficient in their use of resources. Tourism can play a key role, since it generates income and jobs for local businesses, and provides resources to public administrations to manage infrastructure and public services. Nevertheless, we must address the challenges associated with tourism, such as proper management of natural and cultural resources, while ensuring a positive impact on local residents.

It is at this point where digital technologies, in a broad sense, and the DTI model, in particular, come into play as facilitators of change and instruments of the destination management entity. Artificial intelligence, the Internet of Things, big data and other emerging technologies can improve the tourist experience, destination management and efficiency in service provision, and enable the personalisation of the experiences of both residents and tourists, the optimisation of resources and informed decision-making. And the DTI model establishes, in its technology and innovation axes, a reference framework and a set of keys to carry out technological implementation in the destination against an environment of technical collaboration between public and private agents, essential to align objectives, plan and add resources, and implement and manage successful tourism projects for the city and its residents.

We are currently facing a digital industry committed to tourism, innovating and deploying solutions to solve the challenges that arise. Tourism can and must become a key element in the development of tomorrow's cities. Approaching the Smart Destination model from the perspective of a smart city is the best formula to accelerate the path towards the cities of the future.

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AMETIC

Regardless of the in-depth dissimilarities, it is important to briefly examine the characteristics that distinguish a smart city from a smart destination and identify the points of intersection between the two. Cities have become the epitome of the rapid urbanization of society. This trend without geographical borders shows no signs of slowing down. According to the latest United Nations reports, by 2050, 70% of the world's population, 6.3 billion people, will live in urban areas (UN, 2015b). In Spain, more than half of the population, 53%, already resides in areas with more than 50,000 inhabitants, adding up to 151 municipalities whose combined population exceeds 25.1 million people (INE, 2022).

This new reality implies multidimensional changes due to the lack of sustainability of the dominant urban model, from the environmental, social, and economic point of view (Celdrán-Bernabeu et al., 2018). However, the interaction with Information and Communication Technologies (ICTs) allows new approaches to urban planning and management such as the one offered by smart cities (Caragliu et al., 2009).

In the book *“Triumph of the City”* (Glaeser, 2011), it is stressed that the success of cities is largely due to three virtues of pre- and post-industrial cities: competence, communication, and human capital. As far as the latter factors are concerned, the author highlights the advantages of face-to-face contact and the conception of the city as a set of interconnected people, so that we should not identify the city exclusively with its buildings, its architecture, or its infrastructures. An interesting aspect is the importance of contact in the configuration of the city, which also shares the conception of the destination as a place where residents and visitors can interact, facilitating the transmission of knowledge and the creation of experiences.

The European Parliament in its study *“Mapping Smart Cities in the EU”* (European Parliament, 2014) points out that smart cities can be classified along six main dimensions: smart governance, smart economy, smart mobility, smart environment, smart people, and smart life. According to some authors, a city could be defined as *“smart”* when investments in human and social capital and in transport and ICT infrastructure contribute to sustainable economic development and improve quality of life, with rational management of natural resources, through participatory government (Villarejo, 2015).

In general terms, all smart city definitions have as a common element the use of technology as a facilitator for improving sustainability and greater efficiency of public services. The concept has been transitioning from its origins, where the technological dimension and the efficient use of municipal resources predominated almost exclusively, toward a broader concept of urban management with a holistic view of the city, considered as a complex and multidimensional functional system, which takes into consideration the role of citizens in decision-making with political and economic actors (AENOR, 2014, p. 15; Fernández Güell, 2015, p. 22).

In recent years, the literature on smart cities calls for a more complex and inclusive vision of smart cities, emphasizing citizen participation and public-private collaboration. The most avant-garde approaches to the conceptualization of smart cities are similar to those developed within the Smart Tourism Destination framework, with a vision that goes far beyond the mere incorporation of technological tools or

the development of digital capabilities. Digitalizing a destination does not automatically make it smart. This is a new understanding of tourism management that can provide new competitive advantages to destinations by adopting a “*smart*” approach (Shafiee et al., 2019; Wang et al., 2016).

In short, the Smart Tourism Destination seeks to transform current tourism management in accordance with the technological possibilities and the ability of tourism agents to act. It is about relying on the Research, Development, and Innovation (R&D&I) system with an open innovation approach that fosters collaboration, transference, and co-creation among destination stakeholders to bring more knowledge and value to the tourism system (Iglesias-Sánchez et al., 2019). Therefore, the shift toward Smart Destinations will require time, strategy, planning, and resources that will allow for the acquisition of new public and private capacities (Ivars, 2014).

The Smart Destination concept, which appears for the first time as a public policy instrument integrated into a national tourism strategy in Spain, also emerges under the umbrella of the smart cities policy and the influence of the *Digital Agenda* for Spain, in which the following six specific objectives were established: (1) Developing the digital economy; (2) Promoting digital inclusion and employability; (3) Improving e-administration; (4) Fostering the deployment of networks and services; (5) Promoting the ICT R&D&I system; (6) Strengthening confidence in the digital field; and the different action plans and public aid that developed it from 2013 onward, especially the *National Smart Cities Plan*.

Undoubtedly, the *National Smart Cities Plan* (Ministry of Economic Affairs and Digital Transformation, 2015), and subsequently, the *Spanish Urban Agenda* itself (Council of Ministers, 2019), marked a before and after in the way public policies at national level focused on cities as priority intervention sites for their programs, having become aware that Spain is one of the countries in the European Union with the highest percentage of urban population, 80% of our population, and with the aim of making our cities friendly, welcoming, healthy, and aware areas of coexistence (EURDYCE, 2022).

In 2017, the *National Plan for Smart Territories* continued the above-mentioned plan in which specific calls for Smart Tourism Destinations, Internal City Objects, and pilot projects based on 5G technologies were integrated, which have been launched in Spain over the years. It was about implementing cross-cutting policies that would make it possible to “join up” the areas of tourism, the digital agenda, and the urban agenda.

In parallel to the design and implementation of the above-mentioned plans, since 2012, intense work has been carried out to promote standardization, fostering the creation of definitions and standards in the different areas of the smart city, in an attempt to organize and structure a still emergent market of technologies related to it. As part of this process, a specific line of work is being led by SEGITTUR to develop a wide range of standards related to the Smart Tourism Destination.

Without a doubt, one of the areas in which this close relationship between the smart city and the Smart Tourism Destination is most evident is in the field of standardization. Next, in Sect. 3 of this chapter, a detailed vision of the intense regulatory work carried out in Spain in terms of Smart Destinations is presented under the

umbrella of the Technical Standardization Committee AEN/CTN 178 on smart cities, and which complement the Smart Tourism Destinations model from the field of standardization.

3 Standardization Work: The CTN 178

The starting point for the standardization work related to the DTI model was, at the initiative of the Secretary of State for Telecommunications and the Information Society (SETSI), the creation in December 2012 of the Technical Standardization Committee CTN 178 (CTN178), “*Smart Cities*” within the Spanish Association for Standardization (UNE), chaired by SEGITTUR.

This Committee, with the participation of more than 700 experts representing all public and private stakeholders, aims to develop technical standards to guide the development of smart cities. The Committee is structured in seven subcommittees (Infrastructures and City Platforms; Indicators and Semantics; Mobility and Transport Platforms; Sustainability; Tourism Destinations; Spatial Planning and Public Services; Local Entities Certification) and integrates in its 25 working groups specialized members from more than 230 entities (UNE, 2021).

Based on this work, AENOR (2014, p. 15) agrees upon and establishes its own definition within the CTN178: “A smart city is the holistic vision of a city that applies ICTs for the improvement of the quality of life and accessibility of its inhabitants and ensures a sustainable economic, social and environmental development in constant improvement. A smart city allows citizens to interact with it in a multidisciplinary way and adapts in real time to their needs, in a quality and cost efficient way. It offers open data, citizen-oriented solutions and services, both in public and private spheres, in order to solve the impacts of cities’ growth through the innovative integration of infrastructures with smart management systems.”

Following the definition of smart city agreed on by the Technical Standardization Committee CTN 178 on Smart Cities, the four main factors that define a smart city are the following:

- **ICTs:** This very cross-cutting element enables smart management of the city’s services, infrastructures, and heritage, aside from being one of the cornerstones for innovation. Taking into account that ICTs are not an end in themselves, they appear as the nervous system of the smart city organism, promoting good governance. This implies that the political and administrative authorities define clear objectives in relation to their use and that ICTs guide the different actors within the Government.
- **Efficiency:** Smart cities are also called efficient cities, linking “*smart*” with efficiency. Efficiency extends to all the services and functionalities that underpin all the city’s management areas: mobility, urban planning, services, education, economy, health, environment, etc., and, of course, governability. To achieve this, public sector managers must align themselves with businesses and citizens

and promote e-government (facilitating procedures, such as online payment of taxes and fees, access to municipal regulations, public job offers, etc.), the digitalization of information, the connectivity of their territory, and the integration and interoperability of digital services.

- Sustainable development: The efficient management of the resources of a smart city must satisfy the economic, labor, social, and aesthetic needs of its residents, as well as respect the cultural integrity, the environment, and the biological diversity of the territory. Only then can we speak of the necessary sustainable development of a smart city aligned with the frequently cited definition of sustainable development included in the report “Our Common Future” published by the Brundtland Commission in 1987 “development that meets the needs of the present without compromising the ability to future generations to satisfy their own needs” (United Nations General Assembly, 1987, p. 43).
- Infrastructure integration: The integration of a city’s critical infrastructures, such as energy, telecommunications, water supply, transport, waste management, security, or health, is essential to achieve better governance and, therefore, greater citizen satisfaction. Thanks to connectivity, efficient use of ITCs, sensorization and data storage and management tools, managers receive information in real time, allowing them to be informed, with maximum immediacy, of any incident affecting the city’s basic services and to react in advance and with precision.

Taking this approach to the smart city concept as a starting point, the *National Smart Cities Plan* recognized the important role of standards as an accelerator in the development of smart cities, by publishing regulatory documents with technical requirements for better smart city management. Thanks to the intense work carried out during those years, Spain is one of the European leaders in this field, along with France, Germany, Austria, Denmark, Finland, and the United Kingdom (Orejón-Sánchez et al., 2022).

Based on the work carried out by CTN178, in 2013 it was decided to create the Subcommittee on Smart Tourism Destinations (CTN 178/SC5), made up of 180 members from all levels of public administration, institutions, universities and research centers, companies, and independent experts. This committee is responsible for promoting the drafting of new regulatory documents that foster the development and promotion of Smart Tourism Destinations. As a result of this action, the smart tourism destination concept is defined as “*a destination that is capable of making intensive use of the technological infrastructures offered by the smart city to improve and personalize the visitor’s tourist experience, offer them the tourist products and services available, but also make available data that is produced, directed and processed through the technological infrastructure of the destination, offering services in real time*”.

Since the creation of the CTN178/SC5, and to date, several regulations have been developed and published in Spain to improve the management and tools of Smart Tourism Destinations, in search of a uniform framework for the development of DTIs aligned with the process of creating smart cities. Bearing in mind that a

regulatory document and a diagnosis are instruments that respond to different objectives, these public norms make it possible to standardize some aspects of the DTI whose scope is included in this manual. As a result of the work carried out by CTN178/SC5, the family of “*DTI standards*” published to date is listed below:

- Standard UNE 178501 “*Management system of smart tourism destinations. Requirements*”: This standard specifies the requirements for establishing, implementing, maintaining, and improving a Smart Tourism Destination Management System that adequately addresses governance, innovation, the use of technologies, universal accessibility, and sustainability in such a destination. It is applicable to all types of tourism destinations, regardless of their nature (holiday, urban, rural, etc.), size (municipal or supra-municipal), and the nature of the managing body.
- Standard UNE 178502 “*Indicators and tools for Smart Tourism Destinations*.” This standard specifies a set of indicators and tools associated with governance and the pillars of a Smart Tourism Destination (governance, innovation, technology, universal accessibility, and sustainability) that must be applied to its management, so that the destination’s managing body and those responsible for the processes or activities affected can use them efficiently to make decisions and, consequently, can contribute to the improvement of the destinations.
- Standard UNE 178503 “*Destinos Turísticos Inteligentes. Semantics applied to tourism*.” This standard defines a semantic base that allows the representation of the relevant information that makes up the tourism destination (tourism destination, tourist resources within the destination, travel experiences), to guarantee, through the use of its tourist platforms, interoperability between the city, the territory, and third-party projects.
- Standard UNE 178504 “*Digital smart hotel (HDIC) connected to smart tourism destination or smart city platforms. Requirements and recommendations*”: This standard sets out the requirements and recommendations for converting an accommodation into a smart digital hotel connected to the tourism destination or smart city in order to share relevant information for the tourism system, improve the planning of both the accommodation and the tourism destination, adapt to the needs of tourists, reduce the negative impact on residents and offer more efficient and personalized services.
- Standard UNE 178505 “*Framework for the creation of tourism destination websites*”: This standard specifies a method that includes a set of processes, procedures, and guidelines for the creation and design of a tourist promotion website for a destination, providing tourism with a structure that makes it easier for developers to work (development and maintenance). This methodology allows all stakeholders to take full advantage of current technological potential and makes it easier for tourists who use destination tourist promotion websites to access relevant information in an orderly, intuitive, and agile manner throughout all phases of the tourist journey cycle.
- Standard UNE 178506 “*Methodology for the optimisation of search engine positioning (SEO) of tourism destination websites*”: This standard establishes a

series of good practices for all those websites that promote tourism destinations, in order to optimize their crawling, indexing, positioning, user experience, and the performance of organic traffic in search engines.

- Standard UNE 178507 “*Applications of Wi-Fi connection on beaches*”: This standard sets out the general considerations that make it possible to specify the features that a Wi-Fi service must have in a destination’s beach area in order to be in accordance with the purpose for which they are intended, as well as to obtain data for the destination’s managing body to improve its decision-making process.
- Standard UNE 178508 “*Tourism Destination applications (apps) model for mobile devices*”: This standard establishes a set of requirements and recommendations about the general characteristics, development, design, and content of mobile apps for tourism destinations. This standard includes aspects on data management and the functionalities of the apps, so that they adopt an inclusive vision and take advantage of the technical and ergonomic characteristics that differentiate them from the rest of the elements of the destination platforms.
- Standard UNE 178511 “*Guide for the implementation of the Smart Destination Platform layer model*”: This guide serves as a benchmark for tourism destinations (cities and councils) to steer the acquisition of ICT services toward an interoperable and open online digital platform with the scope of the so-called smart destination platform; and which is compatible, in future developments, with other domains of action related to smart city or territory services (water management, energy, waste, security, etc.).

Additionally, and still as draft standards, two new standards are under development: the Standard UNE 178509 on the “*Model for the collection, exploitation and analysis of tourist data*” and the Draft Standard UNE 178510 on “*Smart Tourism Company*.”

Work related to standardization, for the development and promotion of new standards related to the field of Smart Tourism Destinations and their technological infrastructures, has been a constant feature of the work carried out by SEGITTUR over the years. However, this work has been carried out within the framework of groups of experts in close collaboration with the Spanish Association for Standardization (UNE) and in continuous interaction with the ecosystem of actors and agencies, organizations, associations and companies, both public or private, relevant in terms of existing tourism certifications in Spain, as well as the promotion of these at an international level (see the text box below).

3.1 Standards to Promote the Development of Smart Tourism Destinations

The excellent collaboration between the Spanish Association for Standardisation (UNE) and SEGITTUR has resulted in a total of 40 UNE Standards that promote the development of Smart Cities, eleven of which fall within the specific field of Smart Tourist Destinations.

Prepared by consensus in an open and transparent process, the UNE Standards are tools that support the double digital and sustainable transition of destinations and guide their

managers with the best practices in issues such as governance (UNE 178501), the measurement of progress (UNE 178502), semantics (UNE 178503), the connection between hotels and the destination (UNE 178504), the creation of websites and their positioning (UNE 178505 and UNE 178506), Wi-Fi connection applications on beaches (UNE 178507), destination mobile applications (UNE 178508), the collection, use and analysis of tourist data (UNE 178509), the integration of the intelligent tourism company in the DTI ecosystem (PNE 178510) and the layer model of the Intelligent Destination Platform (UNE 178511).

To export this model to other countries and consolidate Spanish leadership in terms of innovation and tourism quality, the UNE-SEGITTUR collaboration has taken another step forward, raising these standards to the international sphere, leading this process through of the ISO/TC 228 Tourism Committee and related services.

Javier García,

General Manager of UNE and Technical Vice President of ISO.

Finally, it is important to point out that there is a will to raise three national standards to ISO (International Organization for Standardization): UNE 178501, UNE 178502, and UNE 178503 (in the case of the latter semantics standard, the *ISO/TC 228 WG 21 Semantics in tourism destinations has already been set up*). This is the first step to begin the work of transforming a national standard into an international one.

The standardization work linked to the DTI model that was undertaken at the end of 2012, and the discussions held in the different working groups, allowed for laying the foundations for SEGITTUR's subsequent formalization of the Smart Tourism Destination concept, and which is presented in the following Sect. 4 dedicated to the concept of DTI.

4 The Concept of Smart Tourism Destination

In September 2015, also within the scope of the work related to the development of the *National Smart Cities Plan*, at the initiative of the Spanish Secretary of State for Tourism and the Spanish Secretary of State for Telecommunications and the Information Society, through SEGITTUR, the "*Smart destinations report: building the future*" was published as a white paper on smart destinations. This report introduced the Smart Tourism Destinations program as a public instrument at the service of improving the competitiveness of tourism destinations, a document which would lay the foundations for the new model.

As defined by the above-mentioned report, a Smart Tourism Destination is "an innovative tourism destination based on a state-of-the-art technological infrastructure which guarantees the sustainable development of universally accessible tourist areas, enabling visitors to integrate and interact with their surroundings, raising the quality of their experience at the destination, and improving residents' quality of life" (SEGITTUR, 2015).

From that initial definition, the work carried out in these years by SEGITTUR has made it possible to highlight, once again, the key role played by the leadership of public management at the local level to promote sustainable and smart development of tourist activity. The Smart Tourism Destinations program provides a valuable tool for this leadership by first identifying and prioritizing the main challenges

of a destination, and then guiding and directing the decision-making and resource allocation of its managers.

This program is designed as a process of continuous improvement designed to enable destinations to successfully face the challenges and constant transformations posed by the global economic, social, and technological environment. It is an initiative to promote the transformation of territories with the aim of favoring the transition to a new, more innovative, digital, and sustainable model. This process culminates with the distinction as a Smart Tourism Destination after applying the planning and management methodology developed by SEGITTUR, which provides a homogeneous framework with which to promote and steer the sustainable and digital transformation of destinations and innovate in their management.

The DTI model arising from academic advances in the theories of tourism destination development and competitiveness (Crouch & Ritchie, 2003; WEF, 2008, 2009, 2011, 2013) defines tourism system management as a complex system that affects the social and economic activity of the entire territory in which it operates, made up of different sectors and actors (public and private), which are directly or indirectly related, until they form a complete and interrelated ecosystem at the service of tourism. Therefore, the creation of a DTI inevitably transcends the field of tourism management in the strict sense of the word. This is a qualitative and quantitative leap over traditional tourism management.

According to this definition, the Spanish Smart Tourism Destination model, at the national level, is based on five pillars: governance, sustainability, technology, innovation, and accessibility. Its implementation requires the joint action of the private sector, public administrations, academies, and organizations at the service of research and knowledge management.

The definition of the DTI concept necessarily implies talking about the DTI methodology promoted by SEGITTUR in destinations, whose core objectives, aligned with the *General Guidelines for the Spanish Sustainable Tourism Strategy 2030*, are as follows:

- Improving the governance of tourism destinations.
- Fostering the economic, social, and environmental sustainability of tourism.
- Promoting the digital transformation of tourism companies and destinations.
- Promoting accessible tourism for all.
- Improving the tourist experience (related to universal accessibility but also to the higher quality of the experience at the destination, thanks to digitalization and sustainability).

The DTI concept aims to promote the transformation of the traditional tourism model into a smarter model, which also means more responsible, aligned with the principles of the new knowledge society and digital economy, but without neglecting sustainability, innovation, and accessibility in the process. This transformation will represent the reevaluation of that destination through innovation and technology, leading to:

- Increased competitiveness, thanks to a better use of existing tourism resources, and the identification and creation of new ones.

- An improvement in the efficiency of production and marketing processes.
- A boost to the sustainable development of the destination in its four areas: environmental, economic, socio-cultural, and institutional.
- An improvement of the visitor experience and the residents' quality of life.
- Making the tourism strategy the basis for the economic dynamization of the territory, guaranteeing its positive impacts in the long term.
- Getting a distinctive seal that guarantees commitment to the DTI's five structural pillars.
- Being part of a project at national level, with international projection and promotion, and allowing destinations to benefit from the synergies produced by working in a network.
- Becoming a member of the Smart Tourism Destinations Network and benefiting from its advantages, sharing experiences and resources with other members, and taking advantage of the visibility and projection that this network offers.

The World Tourism Organization itself has recognized that “Smart Tourism Destinations are key to sustainable development and contribute not only to improvements for the tourism sector, but also for society as a whole” and that “the use of technological solutions proposed by the smart destination model helps to improve the process of informed decision-making, prioritization of measures and anticipation of future scenarios, which is essential for the responsible management of tourism and its impact.” In short, this is what the UNWTO itself has included as a priority in its new work program: “make tourism smarter” (UNWTO, 2017).

Undoubtedly, the pandemic caused by COVID-19 worldwide, and its particular impact on tourism, has allowed to test the usefulness and validity of the DTI concept, before, during, and after the pandemic. The usefulness of a methodology that allows destinations to face environments of growing uncertainty such as the current ones, in which the diversity of elements they have to consider is very large, and where disruption can come from areas outside the tourism industry itself, such as in the case of the pandemic, has thus been demonstrated as highlighted a representer of the Spanish Federation of Municipalities and Provinces of Municipalities and Provinces (FEMP) at the box below.

4.1 The DTI Network: An Opportunity for Municipalities to Improve Their Resilience When Facing Potential Crisis

Tourism continues to be a strategic pillar for the Spanish economy and, fortunately, the data continues to be very positive. For a large number of Spanish local entities, tourism is a basic sector. In many, it is the activity that generates the most employment and income and represents a very important part of their GDP. For the tourism sector, municipalities are also essential, since they are the setting for the tourist experience and where tourists stay, enjoy, socialise with the residents and demand a series of services that local entities are responsible for facilitating.

We are seeing a paradigm shift partly created by the digital transformation of the economy, and the tourism sector must not remain outside this trend. For this reason, local cor-

porations are firmly committed to programmes and tools that allow them to continue improving management, mobility, urban planning, service quality, education, the environment and, in short, to achieve greater territorial governance.

Those responsible for public management have to collaborate and cooperate with the business and social fabric, and with the rest of the institutions to achieve these objectives. Only if we all work together will we be able to be more efficient and face all the challenges and latent issues such as seasonality, load capacity, security, and a long etcetera, to maintain the competitiveness that has made Spain the long-standing world leader in this sector. For this reason, we believe it is important to have the Smart Destination network in Spain.

Tourism has been one of the sectors most affected by the effects of the pandemic and is now one of the drivers of economic reactivation and an important bastion for the recovery of employment. Both the work done since the network was created, and the calls for the digital transformation and modernisation of the local entities in the DTI Network are an opportunity for municipalities to advance in their transformation and modernisation, with a triple goal based on environmental, socio-economic and territorial sustainability through digitalisation.

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Sub-Directorate for Economic Promotion, Tourism and Growth,

General Directorate of Equality and Institutional Policy

at Spanish Federation of Municipalities and Provinces (FEMP)

Among the structural barriers that have been identified in the application of the DTI model, some can be mentioned, such as the lack of a defined tourism strategy, the inability to adapt to changes, the short-term view of tourism policy, insufficient coordination between departments, and the deficit of economic resources (Ivars-Baidal et al., 2017). Although the development of the “*smart*” paradigm in tourism destinations is not a simple task, mainly due to the complexity involved in its effective implementation, the DTI model is an unprecedented advance and support for the management of tourism destinations.

Based on this methodology, the starting point is defined as the DTI Diagnosis, the cornerstone around which the Smart Tourism Destination methodology is applied, developed, and built.

After analyzing the Smart Tourism Destination concept, its international recognition and relevance in the current context, Sect. 5 introduces the core of this chapter: the DTI methodology, its evolution over time, cycles and phases, areas, requirements, and indicators that are subject to assessment, and finally, the particular approach that has been made to the supra-municipal level.

5 The DTI Model Implementation Methodology

This section offers the reader the possibility to go deeper into the DTI model implementation methodology, a central section not only of this chapter but also of the manual as a whole. The DTI model implementation methodology and the five strategic areas around which it is structured are described: governance, sustainability,

Table 1 Structure of this section dedicated to the Smart Tourism Destination methodology

5.1 The objectives of the DTI methodology
5.2 The evolutionary nature of the DTI methodology
5.3 The DTI model implementation phases
5.3.1 First cycle: Diagnosis and planning
5.3.2 Second cycle: Execution and monitoring
5.3.3 Acknowledgment of membership and DTI distinction
5.4 The strategic pillars of the Smart Tourism Destination model
5.5 Areas of action of the DTI model
5.5.1 Governance pillar
5.5.2 Innovation pillar
5.5.3 Technology pillar
5.5.4 Sustainability pillar
5.5.5 Accessibility pillar
5.6 Assessment of results in the DTI model
5.7 The different territorial scales of application of the DTI model

technology, innovation, and accessibility. Each one of those five areas will be analyzed in detail later in the respective chapters of section II of the manual, and with regard to good practices related to each of them in section III.

In order to facilitate the reading of this Sect. 5, given its length and wide scope, its structure has been anticipated in Table 1, presented below, where the reader may see the structure of each of the sections and subsections. As shown, Sect. 5 contains seven subsections, and two of them, the section on DTI model implementation phases (5.3) and the section on DTI model action areas (5.5), contain three and five subsections, respectively.

5.1 The Objectives of the DTI Methodology

The Smart Tourism Destination management and planning methodology is developed by express mandate to SEGITTUR from the Spanish Secretary of State for Tourism, as set out in the 2012–2015 National Integrated Tourism Plan (PNIT), in order to provide a single homogeneous framework for Spanish tourism destinations.

This is a methodology in which, based on the identification of their weaknesses and strengths, destination managers can define their own strategy for the future development of the destination, based on improving the competitiveness and sustainability of the destination, and taking advantage of the intelligent use of existing resources and new tools available to improve the tourist experience and the quality of life of the resident.

The overall objective of the DTI methodology is to provide a tool for the internal review of destinations, their management and strategic planning, and their level of performance in different areas, based on a set of requirements and indicators, whose degree of compliance will indicate which are the priority actions to be carried out to ensure more efficient management and sustainable development.

Specifically, the diagnostic methodology in its current version, the latest available and included in this manual, includes 97 requirements, grouped into 16 assessment areas, which make up the five strategic pillars of a DTI. However, it is necessary to point out that it is a “*live*” diagnostic and monitoring methodology, in constant evolution, which will continue to undergo modifications and improvements in the future, in order to meet the rapid changes that today impose in all areas of local management.

The specific objectives of the DTI methodology that could be highlighted, without claiming to be exhaustive, are the following:

- To evaluate the level of performance of the tourism management of a destination based on a set of common requirements and indicators for all of Spain.
- To provide a roadmap, a guide for the destination manager in the search for higher levels of tourism competitiveness in the medium and long term;
- To prescribe recommendations for improvement in those areas, requirements and indicators in which the destinations show a worse level of performance;
- To promote the design and implementation of a DTI Action Plan in the destination that allows it to improve its management in those areas with the greatest deficiencies;
- To facilitate the monitoring of the degree of implementation of the DTI Action Plan by the destination;
- To promote interaction between the tourism area and the rest of the areas of the town hall or the administrative body that manages the destination with powers other than those specifically for tourism;
- To incorporate new areas of work and elements for reflection on the destination manager’s agenda beyond its traditional marketing and tourism promotion functions;
- To facilitate the transition from traditional Destination Tourism Promotion Organizations to more complex Destination Management and Promotion Organizations.
- To contribute to the mobilization of resources from other areas to the tourism sector and to influence their strategic agendas for smart cities, security, mobility, training, the environment, and others.
- To demonstrate the need to incorporate new skills in destination managers.
- To offer the Spanish tourism administration, at the national, regional, and provincial levels, a single tool for monitoring the evolution of tourism competitiveness in Spain at the local level over time.

Among the great assets of the Smart Tourism Destinations program stands out the capacity of the model to have developed a methodology of some complexity, but easy to apply, which is homogeneous for all those destinations that use it, guaranteeing the comparability of its results regardless of the type and size of the destination that implements it.

The following section is an overview of how the DTI methodology has evolved over time.

5.2 *The Evolving Nature of the DTI Methodology*

One of the most outstanding characteristics of the DTI model is its ability to evolve over time, adapting to the changing context on which it acts. This evolving process, through which the DTI model has been calibrated until reaching the methodological version presented in this manual, began with the first version of the DTI methodology developed by SEGITTUR in 2013: a set of requirements and indicators resulting from analyzing and taking advantage of the work on different indicator systems developed by different international organizations in the field of tourism destinations, such as the UNWTO, the European Commission, the OECD, the International Telecommunication Union (ITU), and the Inter-American Development Bank (IDB).

From that moment on, and with the implementation of the model in the territory and with the learning generated, a methodology has been developed with its own physiognomy, in an ongoing evolving and enriching process, whose originality and value stand out from previous approaches or models.

The design of the methodology introduced here has been the result of a double process: The continuous comparison with the reality of the destinations, based on its application and testing in a multitude of places. A consensus process with an enormous diversity of stakeholders, including the Spanish Secretary of State for Tourism, through the technicians of the General Sub-Directorate for Tourism Development and Sustainability, the specialists of the regional ministries and general directorates of the Spanish regions, destination managers, representatives of tourism and technology associations, certifiers and standardization agencies, and the Spanish Federation of Municipalities and Provinces (FEMP), and many others. It is also necessary to highlight the way in which the methodology has benefited from the continuous contrast to which it has been subjected, thanks to the interaction also maintained with tourism destinations on the American continent (Mexico, Colombia, Uruguay, Paraguay, Cuba or Brazil, and others) that have been willing to participate in the process during the last 5 years.

The Smart Tourism Destination model and the diagnostic methodology that supports it are the result of an in-depth review process carried out by SEGITTUR between 2020 and 2021. This section aims to explain some of the critical aspects of the methodological change made, and the advantages it presents over previous versions, which met four objectives:

1. Firstly, the aim was to highlight the knowledge and experience accumulated at SEGITTUR over a decade of uninterrupted work in carrying out DTI diagnoses, while responding to a changing reality, highly conditioned by the effects of the pandemic on tourist activity, by updating the methodology and reviewing those elements that required some modification or updating.

The evolution of the main challenges facing the tourism sector in terms of digitalization and ecological transition, the impact of the pandemic caused by COVID-19, the new recommendations, voluntary standards and mandatory regulations that have arisen at international and national level, the difficulties

detected in the model to be able to respond to some questions, or the limited relevance and explanatory capacity of others, made it essential to undertake the updating and revision process carried out.

2. Secondly, and given the growing demand of destinations interested in carrying out the DTI Diagnosis, and the finite capacity of SEGITTUR and its human resources to be able to attend to them, it was considered essential to proceed with a process of simplification, explanatory clarity, and greater agility of the assessment procedures, but without having to renounce their precision or their diagnostic capacity.

In this simplification process, the number of areas is reduced from 20 to 16; the distinction between requirements and sub-requirements is eliminated, going from 476 (235 requirements and 241 sub-requirements) to 97 requirements, within which 261 Indicators are designed, prioritizing relevance over quantity; and quality and clarity over quantity.

3. Thirdly, the need to establish a base of requirements and indicators that are objectively quantifiable is taken into account, trying to avoid or limit any type of subjective or interpretive assessment of compliance or not with a certain requirement by the technical team. From the new methodological version onward, each requirement will be linked to quantifiable items through dichotomous valuations or through valuation ranges according to different ranges of possible values, homogenizing the assessment processes.
4. Lastly, the change has strengthened the model's capacity to assess based on evidence, so that it will no longer be enough for the destination to state that it has something or that it plans to undertake a certain action, but it will have to provide documentary evidence for each indicator that supports and accredits the statement made, supported or validated with sufficient and objective documentation or evidence, similar for all destinations. The diagnosis thus resembles audit processes based on documentary evidence of which the destinations are provided with examples and benchmarks.

In the methodological update process of the DTI Diagnoses, the weights assigned to each pillar have also been revised, giving greater weight to the sustainability and technology pillars, which we could assimilate, in the terminology of the European Union, to the processes that imply the double ecological and digital transition in which we are immersed (the two of them explain 60% of the total score obtained by the destination), but also the weights of each requirement, as well as its degree of obligation.

In relation to those most outstanding aspects of the new methodology from the point of view of its content and implicit philosophy of the DTI model, for each of the pillars the following can be mentioned:

- Governance pillar: Destination governance is presented as a critical element of the DTI model, so all its requirements are mandatory, a collaborative, public-private governance that knows how to take advantage of the opportunities of new technologies and that acts on the basis of less intuition and more evidence.

With the new methodology, the role of governance is reinforced, expressed as the level of commitment of the Local Entity that manages the destination with tourism development, the existence of management skills in the area of tourism that go beyond tourism promotion and marketing, the availability of a strategic and action plan, the capacity for dialogue with the private sector and the residents themselves, the measurement of the level of performance and return of the public policies developed (e.g., promotional actions), the promotion of the electronic office, the implementation of portals of transparency, and lastly the ability to measure what will finally have to be managed (in matters such as the economic contribution of tourism or the assessment of tourist satisfaction).

- Sustainability pillar: The new methodological version addresses sustainability from all its perspectives, incorporating as prominent elements, and for the first time explicitly, aspects such as the fight against climate change or the monitoring of *United Nations Sustainable Development Goals* (SDGs) as a mandatory requirement, the support to tourism SMEs, or the monitoring of the health care system and specifically of COVID-19.

Additionally, new elements appear such as: the recognition of the important role played by certifications; the development of sustainable urban mobility plans (including pedestrianization, support for public transport, cycling, electric cars); the consideration of ecosystems and natural habitats among the destination's tourism resources; the obligation to carry out environmental impact studies of tourist activity and carrying capacity; the existence of compensation mechanisms (such as the tourist tax in those destinations that have opted for it); the conservation of historical and artistic heritage; water cycle management plans; waste, noise, and odor management procedures; climate change adaptation and mitigation strategies and measures; greater energy efficiency; giving priority to local products and services; quality of employment; seasonality, and others.

- Technology pillar: Technology with purpose, at the service of a goal, highlighting the capacity of tourism sector to relate to existing technological structures in the form of Smart City projects, integrated city platforms or open data platforms, in which tourism is seen as another stakeholder. Innovative aspects also in relation to the incorporation of cybersecurity and blockchain elements at the service of the same, conversational systems, the application of the General Data Protection Regulation in the processing of personal data or different management systems in the context of COVID-19 (contactless payment systems, booking systems, flow management, capacity control, etc.).

New elements are also being developed, such as: Systems that promote more efficient two-way communication between the government and residents and non-residents, the different types of connectivity to fixed and mobile networks, the use of cloud computing solutions by the destination, the tourist card, destination mobile apps, sensorized signage, all that technological infrastructure related to the tourist information office and others.

- Innovation pillar: Innovation has traditionally been a difficult element to apply in the traditional DTI diagnostic model, being one of the pillars with the lowest scores and the greatest lack of data. A vision of innovation closer to the latest

Oslo Manual 2018 for measuring innovation published by the OECD is incorporated in the DTI model as a novelty, which points out for the first time that innovation is not exclusively a market-oriented process, but that people and public administrations also innovate, and, in general, it occurs in all economic and social domains with the aim of facing future challenges. In the new version of the DTI model, aspects such as innovative public purchasing, open innovation, or social innovation applied to the destination stand out. Two other novel elements have to do with the measurement of the perception of innovation in the destination (an aspect that the Cotec Foundation expressly recommended SEGITTUR to incorporate), and the introduction of the concept of innovation ecosystem within the destination itself and its promotion as a desirable objective.

Aspects related to innovation in tourism products, innovations in processes (marketing and sales, information systems, administration and management), measuring the level of innovation of the destination's tourism enterprises, and finally plans, capacities, and budgets directly related to innovation functions are also included.

- **Accessibility pillar:** With regard to accessibility, in the new version of the methodology, references to some indicators that were not significant or whose scope exceeded the objective of the DTI Diagnosis work have been eliminated. In addition, in some cases, it has been decided to group some criteria, either because they were not significant enough or because of their scant relevance.

The main pillar requirements include: the inclusion of accessibility in tourism planning, the allocation of human and material resources specifically dedicated to actions in this area, the development of inventories of accessible resources, the incorporation of the concept of accessibility related to the tourism value chain, the implementation of promotion and advertising campaigns, the adaptation of infrastructures and mobility vehicles, and, quite exhaustively, the assessment of accessibility throughout the different elements of the destination (natural spaces, beaches, recreational areas, tourist information offices, points of tourist interest, events, etc.).

Finally, with regard to the DTI methodology review process, it should be noted that throughout the work carried out, numerous selected bibliographies have been consulted and meetings have been held with destinations, companies, institutions, international organizations, universities, associations, experts, and specialists from each of the pillars, developing glossaries of terms and cross-references to different scientific authors on the subject.

Throughout the process, the SEGITTUR DTI team, authors of each of the chapters of this manual, has been a key element in lending itself to converting all that tacit knowledge resulting from the experience accumulated with destinations over the last 10 years into explicit knowledge, all through an iterative process of internal review, external review, internal discussion, and modification based on the consensus reached. At the present time, the SEGITTUR DTI team is immersed in a process of migrating those DTI diagnoses carried out with a previous DTI methodology to the new version, so that the comparability of results between the destinations that have implemented the model can continue to be guaranteed.

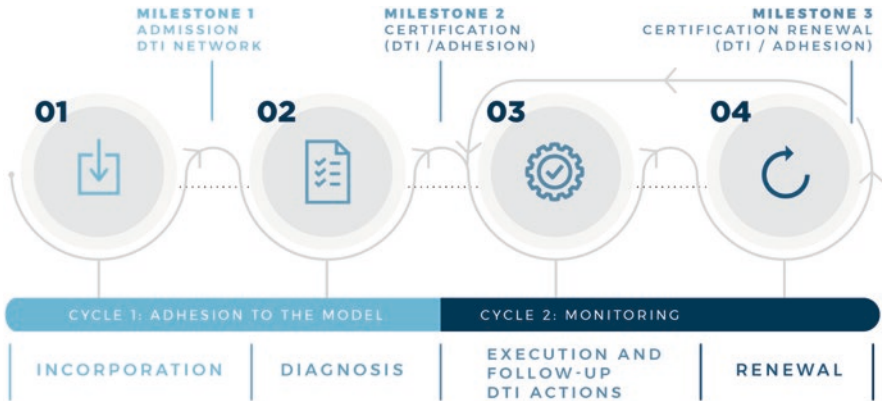


Fig. 1 Cycles and phases of the Smart Tourism Destinations methodology

5.3 The DTI Model Implementation Phases

The adoption of the DTI model implies the implementation of a process, with the joint and concerted action of the public administrations and other relevant stakeholders of the tourism sector in the destination, as well as the private sector, the academic sector, and R&D&I organizations. The process calls for undertaking the complex network of challenges that are the responsibility of different areas at the local, regional, and national level, multidisciplinary and inclusive approaches that can simultaneously consider the dimensions of good governance, economic, social, and environmental sustainability, accessibility, and technology.

With the aim of facilitating the implementation process of the DTI model by the Spanish destinations, a methodology has been developed that is structured in two cycles and five phases (Fig. 1). Based on a diagnosis, the initial cycle allows the situation of each destination to be contrasted with the reference variables of the model in each of its five pillars. From this review, those areas for improvement can be deduced to advance on the smart destination roadmap.

5.3.1 The First Cycle: Adhesion to the DTI Model

The methodological process starts upon receiving an incorporation request to the Smart Tourism Destinations Network from the destination, which undertakes to implement the DTI model (Phase 1—Incorporation).

Upon acceptance of the application, the Diagnosis Phase (Phase 2) begins, the outcome of which sets the baseline or starting point for the entire conversion process to reach the Smart Destination status. A set of 97 requirements and 261 indicators, spread across the five pillars, are utilized to evaluate the level of maturity of a destination concerning the Smart Tourism Destination methodology. Based on the

evaluation, a list of recommendations is generated to improve the destination's performance.

After completing both phases, a destination can become a Smart Tourism Destination or Smart Tourism Destination Associate by achieving a minimum of 20% compliance with diagnostic requirements. The distinction that the destination will obtain may be as "Smart Tourism Destination" if the degree of compliance is equal to or greater than 80% of the required requirements, or "Smart Tourism Destinations Associated," if it does not reach 80% but does obtain at least 20%. In all cases, we proceed to cycle 2, Monitoring. Nevertheless, before addressing cycle 2, the phases of the first cycle are presented with a greater level of detail.

- Phase 1: Incorporation

The process of incorporating a destination into the Smart Tourism Destinations program starts by expressly requesting it to the Secretariat of the Smart Tourism Destination network, whose management has been entrusted to SEGITTUR, by the Secretary of State for Tourism. To become a part of the Smart Tourism Destinations Network, the destination's legal representative or the person delegated with the authority must complete and sign the instrument of adhesion and the commitment to accept the Code of Ethics (Annexes I and IX of the Regulations for the operation of the management bodies of the DTI Network). This is the first step toward formalizing the process. Once the Network Secretariat verifies the request, it will be approved by the DTI Network Executive Commission on a quarterly basis.

During the incorporation phase, the destination's highest representative level of the Local Entity expresses its commitment to the model, which is aimed at promoting sustainable and smart tourism development in the area. Destinations have a period of 2 years to request the DTI diagnosis and proceed to Phase 2.

- Phase 2: Diagnosis

The DTI diagnosis helps to assess the situation of a destination by analyzing different areas of the model. Firstly, it characterizes the basic data related to tourism activity in the territory, the main tourism resources and products, the relevant actors in the territory, and their competencies. Secondly, it assesses the ongoing actions at the destination and the conditions related to the five pillars of the model based on the requirements of the DTI methodology.

To do this, data is collected on the destination's location, sociodemographic characteristics, tourism organizations and skills, tourism industry in the area (in terms of economy and employment), and characteristics of its supply and demand.

In order to make this phase more effective, a project manager is assigned to create a map of relevant actors and implement all necessary actions.

During the process of collecting data in the field, the following actions are performed:

- The DTI diagnostic questionnaire, consisting of five sections for each of the five strategic pillars, has been sent to its destination.
- The manager is required to complete the questionnaire accurately and provide supporting evidence for each response.

- The form is completed by interacting with the destination manager and relevant personnel from different areas to clarify any doubts.
- Visits to the destination may be necessary, particularly to assist with the collection of evidence related to the accessibility strategic pillar. These visits involve assessing the conditions of the destination on-site.
- After collecting the information from the questionnaires and the evidence provided by the destination managers, we will analyze and validate each document at the indicator and requirement level. If the information provided does not match what was requested in the questionnaire or if the evidence provided is not strong enough to support the answer, then the evidence will be considered null and void, and the answer will not be taken into account.
- In the validation process, we maintain open communication with destination managers to allow for modifications or additional evidence.
- After completing the validation of the questionnaire responses, they are loaded into the calculation tool to obtain overall results by strategic pillars, areas, and requirements.

To expedite these actions, it is recommended that the destination establish an Interdepartmental Commission comprising technical personnel from various departments. This will ensure consistency across the organization when implementing the DTI Model.

The analysis of the requirements leads to a set of recommendations and actions that enable the destination to progress toward becoming a Smart Destination. A roadmap will be developed in the coming years.

We include the assessment result in a diagnostic report that characterizes the destination and analyzes DTI requirements and recommendations by pillars. Additionally, we provide the destination with an action plan template that they can use as a model to gather the necessary improvement actions.

It is expected that the destination's current tourism strategy will be unified with the strategy defined by DTI methodology.

Once the diagnosis report has been delivered to the destination, a recognition is granted for the initial effort and work carried out to become a DTI. The destination is then classified as either a Smart Tourism Destination (if it meets 80% or more of the DTI requirements) or a Smart Tourism Destination Associate (if it meets between 20% and 80% of the requirements). This marks the official start of the conversion process, which will culminate in cycle 2 and the destination's entry into the continuous improvement process.

5.3.2 The Second Cycle: Monitoring

In this second cycle, the action plan is implemented by the destination and progress is regularly monitored for renewal of the badge earned in the previous cycle by SEGITTUR.

All destinations will be required to move to Phase 3 and implement the proposed actions. For those destinations that scored above 80% in the diagnosis phase, the

implementation will be voluntary. Destinations must renew their status every 2 years by updating their diagnosis and demonstrating progress in phase 4, Renewal.

All destinations are currently in cycle 2 and are undergoing continuous monitoring to ensure that they maintain the standards set by the DTI methodology. This guarantees that the objectives pursued by the program are met, which is based on a new tourism governance model that leverages knowledge, technology, and innovation. The renewal process takes place every 2 years to validate compliance with all the Smart Destinations requirements and indicators.

The key to success is to continuously improve by identifying specific actions or measures to deal with new challenges or problems within a reasonable timeframe. The DTI initiative's strength lies in its ability to continuously monitor the implementation of recommended actions in the diagnosis report.

The phases of the second cycle are presented below with a greater level of detail:

- Phase 3: Execution and follow-up of DTI actions

After the diagnosis report, the destination will enter a new phase that will focus on implementing the proposed DTI actions. This phase will last for a maximum of 2 years. It is recommended to implement the suggested actions if the destination has already been recognized as a Smart Tourism Destination. However, it is mandatory to implement them if the destination has not yet achieved an 80% degree of compliance.

The distinction of "Smart Tourism Destination" or "Smart Tourism Destination Associate" is valid for 2 years from the date of grant. During this period, the destination is expected to continue working on all proposed actions.

Over the next 2 years, the destination is expected to make progress in its DTI strategy by implementing at least 10% of the actions outlined in the report delivered at the end of Phase 2. All changes must be reported and periodically validated by SEGITTUR under the same terms and conditions as during the initial diagnosis. Evidence must be provided to certify compliance with the corresponding indicator. This will ensure a continuous update of the destination's progress and the degree of compliance achieved.

In order to effectively implement actions toward the DTI and lead the destination in a coordinated manner, the Interdepartmental Commission created in Phase 2 will be transformed into a Monitoring Commission or Smart Office. The objective of this Commission is to execute the DTI actions through participatory and coordinated management of all areas of the Local Entity, ensuring transparency and communication both within and outside the organization. Any changes in the Commission's name, members, and purpose will be recorded in the minutes, and from that moment onward, SEGITTUR will work with the Monitoring Commission to continue advancing the DTI model with the destination.

After 2 years from the initial diagnosis report or its latest update, any destination that has implemented at least 10% of the recommended actions can proceed to Phase 4. However, those that fail to meet this requirement will have to restart the methodological process from Phase 1.

On the other hand, any destination that considers itself ready to move forward may request assessment from SEGITTUR at any time.

- Phase 4: Renovation

In this phase, SEGITTUR conducts assessments to verify DTI implementation and update the diagnosis, ensuring project objectives are met.

During a 4-month review process, SEGITTUR ensures that all requirements and indicators are up to date. The certification is then renewed or granted according to the new level of compliance. Additionally, a new proposal of recommended actions is provided.

The requirements for obtaining the badge remain the same. If a destination achieves a degree of compliance of 80% or higher, it will either continue to be recognized as a “Smart Tourist Destination” or become one. If the degree of compliance is between 20% and 80%, the destination will either remain or become a “Smart Tourist Destination Associate.” Destinations that fail to reach 20% compliance after completing Phase 4 and do not have a “Smart Tourism Destination Associate” certification will need to complete all the procedures required from Phase 1 to continue in the program. If a destination has dropped below 20% compliance after achieving an Associate certification, it will have 2 more years to recover that percentage of compliance.

All destinations with a badge will move to Phase 3 again, thus completing the permanent circle that defines this second methodological cycle and drives continuous improvement.

5.3.3 Acknowledgment of Membership and DTI Distinction

SEGITTUR awards two types of distinctions to destinations that have made efforts to improve their competitiveness in the main pillars of Smart Tourism Destinations—governance, accessibility, innovation, technology, and sustainability. These distinctions are awarded based on the destination’s level of performance. The aim is to enhance the quality of services provided to tourists and residents by promoting transparency and participation.

The initial distinction in the process of becoming a Smart Tourism Destination is the “Smart Tourism Destination Joined” (Fig. 2). This distinction is valid for 2 years, after which the diagnosis needs to be updated for renewal. It is awarded to recognize the work started and provide a first recognition. The destination receives this

Fig. 2 Distinction of affiliation with *Smart Tourism Destinations*



Fig. 3 *Smart Tourism Destination distinction*



distinction when the degree of compliance is between 20% and 80%. It is called the “Participating Smart Tourism Destination” distinction, and the destination is in the process of obtaining the “Smart Tourism Destination” distinction by carrying out the necessary actions to improve compliance with the requirements of each of the DTI pillars set out in its Diagnosis Report.

The “Participating Smart Tourism Destination” recognition acknowledges a destination’s participation in the DTI model through an initial diagnosis, regardless of its level of compliance. As long as the destination can meet the minimum requirements to continue with the process, it will be eligible for the recognition.

The second distinction granted is that of “*Smart Tourism Destination*” (Fig. 3), which recognizes the culmination of the transformation process undertaken by destinations using the DTI methodology and is tied to the fulfillment of its requirements. This distinction is only awarded if the destination obtains a degree of compliance equal to or higher than 80%, which is rarely achieved and requires several interactions with the model over several years.

This recognition is valid for 2 years and is subject to a renewal process. Therefore, it is expected that the destination will remain committed to the distinction—and what it implies—over the years, renewing its objectives and strategies and adapting to the needs of the future environment.

At the time of producing this manual, the following destinations have obtained a score of over 80% in the DTI Diagnosis Report and Action Plan in Spain: Gijón, Santander, Tenerife Island, Benidorm, San Sebastián, and Malaga and, therefore, are considered Smart Tourism Destinations (in Latin America, Tequila, Medellín, and Bogotá have achieved this distinction).

The DTI model is reviewed biennially to ensure commitment to governance, sustainability, technology, innovation, and accessibility. This work is carried out by SEGITTUR, within the framework of the Smart Tourism Destinations program, by mandate of the Secretary of State for Tourism and covered by its budget, with additional contributions from the destinations.

5.4 *The Strategic Pillars of the Smart Tourism Destination Model*

The DTI diagnosis and planning methodology is based on a set of requirements defined on the basis of various national and international benchmark methodologies and recommendations, and validated with the different actors, as explained in the previous sections.

Table 2 Key areas and scope of the DTI model

GOVERNANCE	Strategic vision and implementation Efficient management Responsibility and control Transparency and participation
INNOVATION	Innovative management/governance Innovation activities Innovation ecosystem
TECHNOLOGY	Technologies applied to governance Technological infrastructures and connectivity Technologies for smart tourism management
SUSTAINABILITY	Tourism sustainability management Conservation, improvement, and recovery of cultural heritage Socio-economic development and circular economy Conservation and improvement of the environment
ACCESSIBILITY	Management of accessibility in the destination Implementation of accessibility in the smart tourism destination

The DTI diagnostic methodology consists of five pillars of action: Governance, Innovation, Technology, Sustainability, and Accessibility (Table 2). These pillars are further divided into 16 areas, 97 requirements, and 261 indicators for measurement, each with its corresponding assessment criteria. The following pages provide an overview of the basic elements of each pillar, so that the reader can gain a comprehensive understanding of the model as a whole. For a more detailed explanation, please refer to the rest of the chapters in this section of the manual.

5.5 Areas of Action of the DTI Model

Next, the areas of action in which each of the pillars of the DTI model is structured, and some of their most relevant aspects will be discussed.

5.5.1 Governance Pillar

The governance pillar is analyzed on the basis of four areas of action that cover the mechanisms for planning and implementation, from a participatory perspective and with the maximum guarantees of transparency and control. These four areas are broken down into 12 requirements and 26 indicators.

The objectives of implementing DTI governance define the following areas of analysis of the methodology:

- Strategic vision and implementation: guarantees the future development of tourist activity by providing managers with the necessary planning tools and resources (budgetary, regulatory, and organizational) to ensure implementation.

Smart Tourism Destination requirements are assessed in terms of the structures and institutions responsible for tourism, as well as the planning and strategic instruments that these structures and institutions have at their disposal, and those they use before (diagnosis) and after in the application of these requirements (budget, regulations, etc.).

- **Efficient management:** Achieves the objectives set with the resources available. The requirements in this area analyze the structure of the entity responsible for tourism management, its organization, processes, the functions that give it the capacity to achieve the proposed objectives and adapt to the changing and increasingly demanding scenario, optimizing the efforts and resources used for it.
- **Transparent, open, and participatory management:** strengthens the participation of citizens and the sector in tourism-related decisions, as well as coordinating with other departments, agencies, and administrations, and doing so with due transparency. Beyond good planning, in order to guarantee the quality of services and infrastructures offered, it is necessary for the managing body to act in coordination with other areas of the city council and other administrations. The requirements in this section focus on this and on the negotiation policy that guarantees consensus with citizens and the tourism sector. In addition, the public disclosure of all this process and results is a social requirement that must be integrated into any Smart Tourism Destination.
- **Responsible and controlled management:** Validates the knowledge necessary for planning and risk management at the destination, as well as the measurement of the results of the actions carried out and their coherence with the objectives set. Knowledge management, tools, and measurement of the results of the objectives are valued in this area. The technical analysis of the systems as such is discussed in the technology section.

Chapter “The Pillar of Governance in the Spanish Smart Tourism Destinations (DTI) Model” addresses this pillar, offering a detailed vision of its structure, requirements, indicators, recommendations that are usually made to destinations, as well as a reflection of the SEGITTUR team responsible for it on the main challenges that destinations must face when addressing this pillar.

5.5.2 Innovation Pillar

The innovation pillar is analyzed based on three areas of action that aim to assess the innovative performance of the destination in terms of internal management processes and innovative governance, innovation activities, and, finally, the innovation ecosystem. The objective is to integrate the concept of innovation in all processes to contribute to a more sustainable development that includes citizens and the territory in which the tourist activity takes place. These three areas are broken down into 9 requirements and 14 indicators.

- **Innovation in the management processes and innovative governance of the destination:** The first step in bringing innovation to a destination’s entire tourism value

chain is to apply innovation in the day-to-day management processes of the destination itself, and that of the local authority, to ensure that there is a culture of innovation throughout the organization. To this end, it is necessary to have a body to promote and foster this new organizational culture that proposes the tools with which to achieve the introduction of innovation in the forms of governance.

- **Innovation activities:** The requirements of this area aim to search for resources for new or improved tourism products, the detection of other market segments and the search for new solutions to social or mobility problems. This area includes the application of innovation to the marketing and commercialization of the destination. Thus, it is considered necessary that the managing body and, gradually, the sector as a whole apply innovative formulas for the management of its clientele.
- **Innovation ecosystem:** When designing a Smart Tourism Destination, it is essential for the local manager to be able to take advantage of all the benefits offered by the environment comprising companies, technology centers, universities and, in general, their capacity for innovation, with which the manager can create synergies.

5.5.3 Technology Pillar

The technology pillar is analyzed based on three areas of action that aim to assess the current state of information technologies applied in the destination, analyzing both the current implementation and the near future of new technologically advanced innovative projects. All this is done from different perspectives coinciding with the areas in which the requirements are grouped: technologies applied to governance, technologies applied to tourism marketing, technological infrastructures, and the implemented tourism knowledge system. These three areas are broken down into 21 requirements and 62 indicators.

- **Technologies applied to governance:** A smart destination must make intensive use of technology, foster and promote the use and development of technological tools, and make them available to all the actors involved, in addition to creating training programs that enable and improve training in technological matters. The requirements in this area focus on these aspects and on actions to promote and encourage digital participation, offering citizens access to information and effective communication, thanks to the use of technological tools.
- **Technological infrastructures and connectivity:** The technological infrastructures implemented in a destination and the quality of connectivity are the basis for the optimal use of new technologies in the development of Smart Tourism Destinations. Tourists require connectivity, so connectivity-related infrastructures are crucial. It is also important to implement any technological infrastructures that allow for a more efficient management of services and enable destination managers to have a better understanding of their reality, as well as to improve the process of making informed and therefore smarter decisions.

- **Technologies for smart tourism management:** The management of tourism knowledge and intelligence generated in a destination is a key factor in the decision-making process. The requirements for a smart tourism destination need individualized knowledge of the tourist, of the tourist attractions and services, and a transparent and public management of the system's data.

Chapter “The Technology Pillar of the Spanish Smart Tourism Destination (DTI) Model” is dedicated to this pillar, offering a detailed vision of its structure, requirements, indicators, recommendations that are usually made to destinations, as well as a reflection of the SEGITTUR team responsible for it on the main challenges that destinations must face when implementing this pillar.

5.5.4 Sustainability Pillar

The sustainability pillar is analyzed based on four areas of action that aim to promote sustainability through the destination adopting cross-cutting, interdisciplinary, and inclusive approaches. These four areas are broken down into 38 requirements and 116 indicators. It is therefore the pillar of the DTI model with the greatest number of requirements and indicators, and consequently it has a greater weight in the model than the rest.

- **Tourism sustainability management:** The planning and management of tourism sustainability according to the SDGs, urban planning and management, the promotion of a more orderly and sustainable mobility, the sustainable management of tourism resources, the measurement of capacity, the application of a system of sustainability indicators at the destination, the management of seasonality, the involvement of the private sector, residents, and visitors themselves in actions to support sustainability with greater awareness on the part of all of them, and greater interaction are all elements that fall within this area.
- **Conservation, improvement, and recovery of cultural heritage:** Object of analysis in this area are the elements of protection of tangible and intangible cultural heritage, as well as the promotion and use of related resources, through legislative and regulatory instruments, the inventorying of resources, or the implementation of programs for the recovery, promotion, and protection of heritage.
- **Conservation and improvement of the environment:** The requirements in this area cover everything related to the physical space of the destination and the natural environment and its biodiversity. In short, these all are aspects that guarantee environmental protection ranging from water cycle management, air quality management, noise minimization, promotion of energy efficiency, selective waste collection, and treatment and adaptation to climate change.
- **Socio-economic development and circular economy:** This area includes all aspects related to the protection and promotion of the economy and local products, responsible shopping, local suppliers, diversification, education and training, fair employment, crisis management, regulations on health, hygiene and food safety, and monitoring and health care for visitors.

Chapter “The Pillar of Sustainability in the Spanish Smart Tourism Destination (DTI) Model” presents this pillar in depth, describing its structure, requirements, and indicators by areas of action, together with the recommendations that are usually made to destinations with a view to its implementation. This chapter also shares the reflection of the SEGITTUR team, responsible for the pillar, on the challenges that destinations must solve when implementing this pillar.

5.5.5 Accessibility Pillar

The accessibility pillar is analyzed based on two areas of action that aim to promote universal accessibility in the tourism destination, enabling access to all kinds of products, services and cultural, nature or leisure activities, regardless of the characteristics, abilities, or conditions of the potential visitor. For this purpose, management and regulatory elements must be taken into account in this area, as well as their applicability in spaces, infrastructures and in the technology used in the destination for tourists. These two areas are broken down into 17 requirements and 43 indicators.

- Management of accessibility in the destination: This section analyzes compliance with the different legislation related to accessibility that impacts the territory in which the destination is located and the training required by those responsible for its application. It also analyzes matters related to strategic planning instruments or communication on the accessibility conditions of the destination with the aim of determining policies and action strategies aimed at applying measures for their improvement.
- Promotion of accessibility in the destination: Accessibility conditions are analyzed in different physical spaces of the territory that are essential for visitors, from tourist offices to beaches, parks or their management in events and in spaces managed by the private sector. Existing technological tools are also analyzed, especially within the field of communication and marketing, and their degree of accessibility.

Chapter “The Pillar of Accessibility in the Spanish Smart Tourism Destinations (DTI) Model” develops this pillar, presenting in detail its structure, requirements, and indicators, as well as a set of recommendations that are usually made to destinations to assist them in their implementation. It also offers a reflection from the SEGITTUR team responsible for the pillar about the main challenges that destinations must face when addressing the accessibility pillar.

5.6 Assessment of Results in the DTI Model

This section illustrates, through a specific example, the way in which the results are assigned to a destination based on the answers collected by the questionnaires that SEGITTUR uses to transfer the DTI diagnosis to the destination.

The basis for obtaining the results of the destinations is provided by the answers to a series of questionnaires, for each of the pillars, which make it possible to measure each of the indicators. These questionnaires are filled in by the destination, with the support of SEGITTUR and/or third parties, and validated by SEGITTUR on the basis of the supporting documentation provided by the destination.

From these responses, the assessments of all the indicators are obtained directly for each pillar, and by aggregation, the assessments of the requirements to which they correspond are obtained.

To illustrate the described process, as an example, Table 3 presents the questions, answers, and assessments for the first area of work, “Strategic vision and implementation,” contemplated in the pillar of Governance (Requirement GOB01_01), which consists of 3 requirements, as shown below.

Thus, in accordance with the above formula, the value of each requirement is calculated as the sum of the scores for each indicator based on their weights.

For each pillar, weights have been given to the requirements according to their relevance on a scale from 1 to 3, so there are three different weights. To obtain the assessment of each pillar, the corresponding weight is applied to the direct assessment of the requirements obtained from the answers to its questionnaire.

This way, adding up the assessments of all the requirements, 12 in the case of the governance pillar corresponding to the four areas of action described on subsection 5.5.1, the individualized assessment of each pillar is obtained. The assessment score ranges from 1% to 100%, enabling the destination to know its percentage of compliance out of 100 in each of the pillars. Table 4 illustrates how is calculated for the exemplified destination its current score on the governance pillar. As shown the final score on the governance pillar for this destination ($45,6\% = 0,456$) was gotten by aggregating the weighted scores of the different governance requirements ($0,75 * 0,136 + 0,5 * 0,136 + 0 * 0,06 + \dots + 0,5 * 0,136$) illustrates how is calculated for the exemplified destination the score it gets on the governance pillar by aggregating the scores of all the governance requirements.

In the example (Table 4), the percentage of compliance with the Governance pillar is 45.6%.

To determine the degree of compliance at the level of the area of action, the weights of each requirement for the area in question are applied to the direct results of the requirements obtained from the questionnaire, thus achieving an individualized assessment of each area, on a scale from 1% to 100%. This allows the destination to clearly visualize the result obtained by the requirements of that area over the total of the area itself (Table 5).

To calculate the total score, i.e. the degree of compliance of the destination in all the pillars, and following DTI methodology, each pillar is given a weight according to the number of requirements it has out of the total. The assigned weights are as follows: Governance: 12.4%, Innovation: 9.3%, Technology: 21.6%, Sustainability: 39.2%, and Accessibility: 17.5%. Thus, to obtain the final result, the result of each pillar is weighted according to its relevance within the model corresponding to the number of requirements.

Table 3 Questions, answers, and ratings for the indicators of Requirement GOB01_01

Questionnaire question code	Questions	Answers	Indicator code	Indicator + Answers	Indicator assessment
1.1	Does the destination have a public document of commitment to tourism development? (if not, go to question 1.2)	Yes	GOB01_01_01	Degree of commitment of the local entity to tourism development, reflected in the form of a public document (0–20%)	10%
1.1.1	Is the commitment document published online?	No	GOB01_01_01_01	The document is published on the local entity's website (10%)	0%
1.1.2	Does the document expressly mention the involvement of all areas of the local entity in tourism development?	Yes	GOB01_01_01_02	The document expressly mentions the involvement of all areas of the local entity in tourism development (10%)	10%
1.2	Does the Tourism Area have assigned destination management skills beyond tourism promotion and/or marketing skills?	Yes	GOB01_01_02	Existence of management skills in the Tourism Area, beyond tourism promotion and/or marketing skills (20%: Yes // 0%: No)	20%
1.3.	Does the destination have an Annual Tourism Action Plan? (if not, go to question 2.1)	Yes	GOB01_01_03	Adoption of an annual tourism action plan (0–60%)	45%
1.3.1	Does the Annual Tourism Action Plan set out in detail the actions for which a budget has been allocated?	Yes	GOB01_01_03_01	The Annual Tourism Action Plan sets out the actions for which a budget has been allocated (30%)	30%
1.3.2	Has the Annual Tourism Action Plan been drawn up in consultation with the private sector and citizens?	No	GOB01_01_03_02	The Annual Tourism Action Plan has been drawn up in consultation with the private sector and citizens (15%)	0%
1.3.3	Does the Annual Tourism Action Plan have expenses and investments directly linked to the Smart Tourism Destination project, dependent on both the Tourism Area and other Areas?	Yes	GOB01_01_03_03	The Annual Tourism Action Plan has expenses and investments directly linked to the Smart Tourism Destination project, dependent on both the Tourism Area and other Areas (15%)	15%

NB: Value requirement GOB01_01 = Value GOB01_01_01 (10%) + Value GOB01_01_02 (20%) + Value GOB01_01_03 (45%) = 75%

Table 4 Direct and weighted assessments of the requirements of the Governance pillar

GOVERNANCE		Direct assessment of requirement	Requirement weight in pillar	Weighted assessment of requirement
GOB01	Relevance of tourism as part of the organization	75%	13.6%	10%
GOB02	Strategic planning tools	50%	13.6%	7%
GOB03	Promotion and marketing planning tools	0%	6.8%	0%
GOB04	Creation of tourism product	0%	6.8%	0%
GOB05	Training program at the local entity and in companies	0%	4.5%	0%
GOB06	Coordination structures at the Local Entity for the development of tourist activity	25%	6.8%	2%
GOB07	Public-private and public-public collaboration structures	75%	13.6%	10%
GOB08	Communication channels in place with visitors, residents, and the sector	30%	4.5%	1%
GOB09	Promotion of transparency and e-administration	20%	4.5%	1%
GOB10	Tourism quality	60%	6.8%	4%
GOB11	Monitoring of actions to promote tourism	75%	4.5%	3%
GOB12	Observatory/process for measuring tourist activity	50%	13.6%	7%
TOTALS		460.0%	100.0%	45.6%

Table 5 Assessment of the destination by areas

Assessment of the destination by areas	
GOB. 1. Strategic vision and implementation	41.7%
GOB. 2. Efficient management	15.0%
GOB. 3. Transparency and participation	55.0%
GOB. 4. Responsibility and control	57.3%

Table 6 Assessment of the destination by pillars

Overall assessment of the destination	38.9%
GOB. Governance	45.6%
INN. Innovation	23.0%
TEC. Technology	24.2%
SOS. Sustainability	46.7%
ACC. Accessibility	43.4%

The following Table 6 illustrates the results of the destination used as an example, exactly as it is presented to the destination, with the individual scores for each pillar of action and the total score, applying the corresponding weight to the result of each pillar based on its contribution to the model.

5.7 *The Different Territorial Scales of Application of the DTI Model*

The different scales to which the DTI model can be applied: tourism destinations at municipal level, groupings of small destinations such as associations of municipalities and counties, destinations integrating regions, etc. is essentially the result of the work carried since 2021.

The application of the DTI diagnostic methodology at the supra-municipal level is a relatively recent phenomenon that has been particularly driven by the willingness of several regions in Spain to promote the implementation of the model at the county level. This is the case of the Basque Country, through Basquetour, which has been promoting the implementation of the DTI model in different Basque counties (see the text box below), the Region of Murcia, and more recently the Barcelona provincial government.

5.7.1 Basque Model of Territorial Tourism Development

In 2018, Basquetour, together with SEGITTUR and in collaboration with Donostia Tourism, launched the first ever pilot project in the Basque Country to start applying the DTI model in the Donostia / San Sebastián destination to turn it into a municipal destination.

After this first pilot, and with the aim of continuing with the progress made with the DTI project, in 2019, Basquetour, together with SEGITTUR and in collaboration with the Vitoria-Gasteiz City Council, applied the same DTI model in the Vitoria-Gasteiz destination to turn it into a municipal destination.

Following these two positive experiences, and in order to be able to offer the same opportunity to the rest of the Basque destinations, Basquetour informed SEGITTUR of its need for the existing DTI model to be applicable to the regional level, thus moving beyond the PTI (Smart Tourism Product Master Plan), given that, based on the current Basque Model of Territorial Tourism Development, the destinations of the Basque Country are to a greater extent at the regional level compared to the municipal level.

Therefore, SEGITTUR asked/allowed Basquetour to adapt the existing model to the regional area. As such, Basquetour carried out a first theoretical exercise of adapting the DTI model to six Basque destinations (Bidasoa, Debagoiena, Goierri, Rioja Alavesa, Uribe and Valles Alaveses) and then piloted the adapted DTI model in three of them (Goierri, Uribe and Rioja Alavesa), which set them apart in August 2022.

Now that they have reached this point, Basquetour continues to apply the DTI model in its destinations, both in the renewal process and in the first diagnosis process, at municipal and regional levels; five new destinations are currently participating in 2023 (Bidasoa, Bilbao, Debagoiena, Getxo and Valles Alaveses) with the spirit of gradually extending the model to more Basque destinations that require it.

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The Region of Valencia, through INVAT·TUR, has been reflecting on the difficulty involved in applying its DTI self-diagnosis model (described at the text box below) at the supra-municipal level, identifying some problems associated with it: The difficulty of coordinating departments belonging to different municipalities, the lack

of powers at the supra-municipal level (limited by law or by interpretation regarding promotion), the different rhythms, interests or priorities regarding tourism management or other related matters. From the point of view of Valencia, as they indicate in the “*Study on the adaptation of the methodology and indicators of the DTI-CV model to the supra-municipal level*” (2021), it is not viable to apply the model at territorial levels higher than the municipal level, and the option they offer destinations of this type is the implementation of what has been called the *Smart Tourism Product Master Plan* (PTI).

5.7.2 Principles of the Development of the Smart Tourism Destinations Model of the Region of Valencia (DTI-CV)

The Region of Valencia has maintained a clear commitment to its transformation on the basis of the Smart Tourist Destination model since its design and implementation in 2014 by Turisme Comunitat Valenciana, through the Valencian Institute of Tourism Technologies (Invat-tur). Since then, the Region of Valencia has developed a legislative, strategic and operational framework that guarantees the deployment of the DTI-CV model (Fig. 4) and technical support to the Valencian tourist area.

Law 15/2018 on tourism, leisure and hospitality, whose articles make clear references to smart management and tourism governance, promoting the implementation of the DTI-CV model, is worth mentioning in this regard. The Tourist Municipality Statute regulates the criteria that municipalities must fulfil and the obligations they must undertake in order to obtain and maintain their tourist status, including the adaptation of the DTI-CV model, while the Region of Valencia’s Strategic Tourism Plan 2020–2025 places transformation into a smart territory at the center of the region’s vision for the future of tourism, and it also sets out specific lines and programs in terms of smart planning and management.

Finally, the Smart Tourist Destinations Network of the Region of Valencia represents the governance tool between destinations that, since its creation in 2019, has allowed for the transfer of knowledge, exchange of good practices and testing of management tools. The only regional network of its kind in Spain, the DTI-CV Network encompasses destinations of all kinds under a common model, adapted to both municipal and supra-municipal levels.

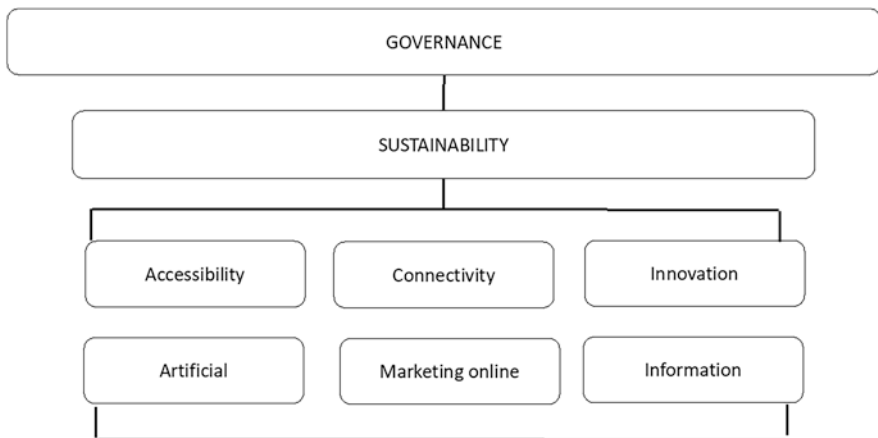


Fig. 4 DTI-CV model (axes)

The vision under which the DTI-CV model is designed and developed is characterised by two basic principles:

- Smart Tourist Destinations model as a management model in itself, focused on the changing reality of tourist destinations, which implies its permeability to changes, challenges, requirements, and indicators and, therefore, its consideration as a model for the continuous improvement and progress of tourist destinations.
- Smart Tourist Destinations as a model based on governance, the pillar on which its implementation hinges and from which the transformation of destinations towards this new management model must be carried out, from a technical cross-cutting nature, public–private collaboration, and social participation.

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The concept of “county” in Spain corresponds to a group of small, relatively close municipalities in a relatively homogeneous territory. This is a territorial level of enormous importance in Spain, perhaps one of the most suitable instruments to try to correct the intra-regional spatial imbalances that have developed over the last 30 years. These are local entities formed from the grouping of several small bordering municipalities, with common geographical, economic, social, or historical characteristics, and belonging to the same province for the management of local authorities and services, as defined in article 3.2.b of Law 7/1985, of April 2, regulating the Bases of the Local Governance.

The county, considered as an institutionalized territorial entity, with full legal personality and endowed with technical, administrative, and financial means, beyond the specifically tourism field, has a key role as a special framework suitable for identifying and resolving regional imbalances. This is an instrument that allows for working on the preservation and management of natural resources, the adequate planning of infrastructures and, of course, the planning of the tourism activity that takes place there, promoting intra-regional policies that allow for overcoming the imbalances of the urban network. For this reason, the role they can play in the development and implementation of the DTI model in Spain is important.

SEGITTUR’s commitment to the development of a county-based DTI model responds to the idea that the county, as a local entity, could be one of the primary instruments for the structuring of the territory in the Spanish regions. This is especially true of an activity such as tourism, which takes place in a territory through which the tourist moves without being aware of its administrative delimitations, and in which proper tourism management depends enormously on the necessary supra-municipal cooperation.

The county-based DTI model that has been developed by SEGITTUR takes into account the fact that the territorial base of the county rests on municipalities that share common interests that need their own management or require the provision of common services. Therefore, any DTI diagnosis that is carried out on the provision of tourist services of municipalities whose management is shared, in any of the five pillars of the model, will require a specific approach for it. In the same way, the recommendations made as a result of the diagnosis cannot be defined for a specific municipality but for the sum of all the municipalities in the same county.

In the case of the model developed by SEGITTUR, it was considered preferable to maintain at the county level an approximation similar to that normally used at the municipal level, without overlooking the above-mentioned difficulties, which were confirmed in the fieldwork carried out. SEGITTUR carried out a study in 2021 and 2022, in collaboration with the tourism professionals of the Basque Government's Department of Tourism, Trade and Consumer Affairs, through Basquetour. This study, carried out on the basis of the pilot projects in the counties of Goierri, Uribe, and Rioja Alavesa, sought to adapt the DTI diagnostic methodology to the Basque counties, with the idea of being able to transfer the results to other territories in the national level.

The adaptation of the DTI diagnostic methodology to the supra-municipal level, for the sake of comparability and methodological homogeneity with other destinations, respecting the essence of the DTI model, did not entail major changes with respect to the general methodology. As a result of the learning process, the methodology adapted in the Basque Country, which we could call the *Eskualdea DTI model*, has been successfully used in other Spanish counties, such as Sierra Espuña in the Region of Murcia.

At a county level as well, the smart tourism destination methodology is based on five lines of action, governance, innovation, technology, accessibility, and sustainability, which involve the assessment of 261 indicators and 97 requirements. In the case of a county destination, the requirements must be met at the county level, as this is the territory being diagnosed, bearing in mind that the source of information on each requirement does not always have to be the managing body—it must be whoever has the data or is competent in the matter.

The big difference between a municipal methodology and a county-based one, more than the requirements themselves, which are generally the same, lies in the entity or institution that has jurisdiction over public policy and is the source of the data to justify each requirement.

Another difference when applying the DTI model to a county or supra-municipal entity lies in the launch or implementation of the action plan resulting from the DTI diagnosis due to who has the competencies to undertake each action. There are also cases in which the powers are not identified at the level of counties or associations of municipalities but are located at the province or regional level. This reflects the need and the fundamental role of the councils and general tourism directorates of the regions of Spain, such as Basquetour in the Basque Country, as catalyst agents of the DTI model, especially when it comes to promoting the application of action plans so that a tourism destination comprised of counties can become a DTI.

In order to adapt the DTI methodology, some of the indicators have had to be adjusted, changing, for example, from assessing whether the destination has a municipal urban development plan to whether there is a territorial development plan in the county, or analyzing public transport between the municipalities of the county and outside it, instead of assessing its urban municipal transport—i.e., the focus is placed on the destination at the “supra-municipal” level (county or association of municipalities). These changes imply that, in the process of gathering information in the field to carry out the diagnosis and its subsequent validation, involvement is

needed from each municipality independently, the body that coordinates tourism at the county level and the autonomous region, provincial council or entity with specific competences in each matter.

In areas with small towns and sparse populations, one of the advantages of the county-based DTI analysis compared to the municipal one, among the smallest municipalities, is the possibility of having official and comparable statistical information on different variables at the county level to feed the diagnosis, which would otherwise be very difficult to obtain.

In some regions of Spain, the county DTI model developed will also be applied to the scope of the associations of municipalities, which, although there are some differences with the counties (from the point of view of their greater legal flexibility), they share the practice of managing the common interests of several municipalities in an integrated manner.

In short, there has been an effort to defend the role that the county level can play, from a smart tourism perspective, as an opportunity to promote greater inter-territorial integration, to address the effects of depopulation, to build arguments around the tourism narrative and to provide county managers with a diagnostic tool to anticipate and respond to the tourism challenges that Spain, with its different administrative and jurisdictional structures, has ahead of it.

In any case, regardless of the territorial scale at which the DTI methodology is applied, all of them will be interested in highlighting how these destinations' adoption of the DTI model contributes to the fulfillment of the United Nations 2030 Agenda for Sustainable Development. Some of these relationships will be discussed below.

6 The Link Between the DTI Model and the Sustainable Development Goals

In September 2015, the United Nations General Assembly adopted the *2030 Agenda for Sustainable Development*, an action plan for people, the planet, and prosperity, which also seeks to strengthen universal peace and access to justice. The Member States of the United Nations approved a resolution in which they recognize that the greatest challenge in the world today is the eradication of poverty and affirm that, without achieving this, there can be no sustainable development.

To the extent that tourism is one of the driving forces of global economic growth, currently provides 1 in 11 jobs worldwide and is one of the leading industries in Spain, it was essential to link the DTI methodology with the achievement of these objectives, not only in larger destinations and cities, but especially among rural territories and much smaller-scale destinations.

Thus, in the current DTI methodology, it is possible to establish an explicit relationship between compliance with the requirements of a DTI and its direct or indirect contribution to achieving many of the 17 Sustainable Development Goals (SDGs). Specific examples include *Goal 4 "Quality education"* and its target 4.7

“Acquire the knowledge necessary to promote sustainable development,” which corresponds directly to a requirement of the DTI methodology, *“to promote training programs on sustainable tourism development in the destination, its managing body and the private sector”* (For further details, check chapter *“The Pillar of Sustainability in the Spanish Smart Tourism Destination (DTI) Model,”* sustainability pillar, requirement 33).

Another good example can be found in relation to *Objective 5 “Gender equality”* in terms of requirements aimed at maximizing the inclusion of women in the tourism sector and equal working conditions, both of which have been taken into account within the DTI methodology. Other objectives, such as 6 *“Clean water and sanitation,”* 7 *“Affordable and clean energy,”* or 11 *“Sustainable cities and communities,”* are precisely the basis of the sustainability pillar of the Spanish Smart Tourism Destinations model. Others, such as 13 *“Climate action,”* 14 *“Life below water,”* or 15 *“Life on land,”* have been at the heart of sustainable tourism development models for decades and are also at the heart of the DTI model. Readers will realize all these multiple connections between the DTI methodology and the SDGs on the following chapters, where the DTI pillars, with their respective areas of action and requirements, are presented in detail.

As mentioned, the aim is to offer a working methodology to destinations that can adapt to the changes and challenges brought about by the development of the global agenda, promoting action at the local level without losing sight of the global horizon, acting in the short term to preserve resources in the long term. This is without neglecting these principles, more relevant than ever, that were established more than 25 years ago by Agenda 21 during the United Nations Conference on Environment and Development or *“Earth Summit”* held in Rio de Janeiro in 1992—this is a methodology that looks to the future without losing sight of the values, principles, and guidelines that are more valid than ever in today’s context.

The following Sect. 7 will give an overview of the degree of implementation of the DTI model by Spanish tourism destinations of different types and sizes. This is a process which has particularly accelerated over the last 2 years as Spain has been emerging from the impact that the COVID-19 pandemic has had on the tourism sector and its actors.

7 The Implementation of the DTI Model in Spain

In the year 2023, the national program for smart destinations in Spain will have completed 10 years since its launch in 2013. During this period of time, the DTI model has evolved based on accumulated experience, interaction with the work carried out by the DTI-CV program in the Region of Valencia developed by INVAT.TUR, the testing carried out with public and private experts in the different areas of the model, and at all times, striving to adapt to a changing reality, such as the one brought about by the pandemic, the crisis caused by the war in Ukraine, or the rise in inflation levels throughout Europe.

To date, more than 100 destinations in Spain have gone through the DTI diagnostic process, in its different methodological versions. Most of them are already working with the latest methodological version available and included in this manual, and others are in the process of migrating to it. This is a number more than large enough to reaffirm the validity of the model and the growing interest that the concept of Smart Tourism Destination continues to arouse among Spanish tourism destinations, especially in the last 2 years.

The destinations that have implemented the DTI model in the last 10 years include very different types and sizes, which has made it possible to compare the success of the DTI model in territories with very diverse characteristics, and which provide a very representative sample of tourism in Spain. Without attempting to list them exhaustively, it is possible to highlight some consolidated destinations considered to be among the great benchmarks of sun and beach tourism in Spain, such as Benidorm, Salou, Arona, Lloret de Mar, Castelldefels, Calvià, Torremolinos, Conil, Sitges, Peñíscola, or Marbella; tourism cities par excellence on the Spanish coast such as Malaga, Valencia, Palma de Mallorca, Santa Cruz de Tenerife, Las Palmas de Gran Canaria, Almeria, Santander, San Sebastian, or Gijón; inland tourism destinations that are representative of Spain's artistic and cultural heritage, such as Seville, León, Salamanca, Cuenca, Valladolid, Logroño, Vitoria, Burgos, Cáceres, Mérida, or Granada; and finally, we should also mention small rural coastal or inland towns with unique tourist attractions, such as Castropol, Cangas de Narcea, Cuellar, Hellín, Santa Margalida, Noja, or La Adrada.

All this accumulated experience has enabled the creation of a database of recommendations and good practices which, linked to each of the requirements and indicators of the DTI model, allows for offering destinations guidance, practical references, and successful experiences in other destinations when designing their action plans and identifying policies, measures and instruments to implement. This is perhaps one of the greatest appeals that the DTI model currently offers. In this manual, specific examples of these recommendations are included in the chapters on each of the DTI model's pillars. Additionally, a collection of good practices is provided in chapter "The DTI Model Experience: Best Practices on Smart Destination Management," illustrating how different destinations have adapted the different DTI pillars to their realities, introducing a wide range of solutions which may serve as example for other similar destinations.

Ten years of learning, development, and transformation of a model that must continue to evolve with the times, constantly updating in order to continue to respond to the new challenges that arise and the needs of the destinations that implement the model. The challenge is twofold: first, to continue offering the possibility of carrying out the DTI diagnosis for new interested destinations and to migrate to the new methodological version to all those who have not yet done so, and second, to be able to monitor the progress of those who have already carried it out, offering them support and recommendations throughout the implementation of the DTI action plan.

At the same time that the level of implementation of the model in Spain has been spreading, it is important to note that the DTI methodology has also been well

received internationally, mainly on the American continent. The last section of the chapter deals with this process of extending the model at international level, which has been aided by the constant references to the Spanish DTI model by some of the main international organizations that have been acting in the field of tourism as prescribers of public tourism policies.

8 Presence of the SEGITTUR DTI Model at an International Level

It is also necessary to highlight here, as an achievement of the last 2 years, the strong boost to the internationalization process that the DTI model developed by SEGITTUR in Spain is experiencing—especially in Latin America, although not exclusively, and more and more European and Asian countries are becoming interested in the methodology that has been developed in Spain. Through this process, Spain consolidates its international leadership as a benchmark in public tourism policies, while at the same time promoting the internationalization of Spanish tourism companies that provide innovative services and solutions related to the new model.

In the international sphere, the great influence of large multilateral organizations on the global political agenda cannot be overlooked, both from the perspective of identifying major challenges, as well as from the point of view of promoting certain policies and instruments that serve countries and their territories. It is therefore very relevant to mention the fact that in recent years some of these organizations have included smart destinations for the first time in their collection of recommendations and good practices in tourism. Examples of this presence include:

During the UNWTO Executive Council held in San Sebastian in 2018, the Vision and priorities of its 2018–2019 Work Program were approved, including Priority 1 “*Making tourism smarter: Innovation and digital transformation*,” which expressly mentions the desire to “*Promote smart tourism destinations*”—the first time that the UNWTO mentioned them in its Work Program.

A year later, in 2019, during the UNWTO World Urban Tourism Summit in which more than 80 countries participated, the *Nur-Sultan Declaration on Smart Cities* was developed, where countries are encouraged to adopt the holistic concept of the smart destination in the development of urban tourism based on the same five pillars of the Spanish model.

The same year, the UNWTO published its “UNWTO Guidelines for Institutional Strengthening of Destination Management Organizations (DMOs): Preparing DMOs for new challenges” in which the concept of a smart destination supported by the five pillars of the Spanish model is expressly mentioned, and where Destination Management Organizations (DMOs) are recommended to transform the destination into a smart destination.

The OECD report “OECD Tourism Trends and Policies 2018” included the Spanish Smart Tourism Destinations initiative as a best practice for tourism and mentions the role of SEGITTUR in its development. During the session of the *OECD Tourism Committee* that took place in Paris on 27 March 2018, special attention was devoted to Spanish initiatives in the field of Smart Tourism Destinations with SEGITTUR’s participation. Additionally, among the megatrends identified by the OECD as being chiefly responsible for redefining the tourism sector in the coming years, Smart Tourism Destinations are specifically mentioned.

The Inter-American Development Bank (IDB), in its *Tourism Sector Framework of July 2017*, includes within its Lines of Action and Activities planned in the Ibero-American region the need for the “Analysis of the feasibility of implementing smart destinations based on the use of ICTs to promote innovation and to interconnect the tourism value chain.” Again, this is the first time that the IDB mentions smart destinations in a tourism sector framework.

In 2022, the IDB published its new *Tourism Sector Framework*, drawn up by the Environment, Rural Development and Disaster Risk Management Division, which defines the IDB roadmap for the coming years in terms of tourism. The report identifies the main challenges facing the American region in relation to tourism activity, and one of the five challenges it identifies refers to the “need to improve tourism governance” by strengthening the capacities of Destination Management Organizations, mentioning as an example the Smart Tourism Destinations developed by Spain. The SEGITTUR definition of Smart Tourism Destinations as a strategic and operational framework for the transition of destinations toward digitalization is also mentioned when it refers to the use of new technologies in the service of better tourism governance.

The European Commission, in its “*Digital Government Factsheet 2019*,” highlights for the second consecutive year the role played by SEGITTUR, and the Smart Tourism Destinations and Tourism Intelligence Systems projects, as relevant elements of Spanish public policies, and as a reference in the field at international level.

Meanwhile, since 2018, the European Commission has also been running an open process to select the *European Capital of Smart Tourism*, which once again highlights the enormous interest in a concept in which Spain has been a pioneer.

Finally, it is worth mentioning the recognition that Spain received, for the first time, just a few months ago in Seville from the World Travel and Tourism Council (WTTC)—the only international organization that brings together the main players in the travel and tourism sector (airlines, hotels, cruises, car rental, travel agencies, tour operators, global distribution systems, and technology companies)—for its contribution in the field of technological innovation, with specific mention of initiatives such as Smart Tourism Destinations.

It is important for the Spanish DTI model to be recognized as a benchmark in terms of public tourism policies in the areas of technology and innovation applied to destination management and digitalization, especially by organizations that define the global tourism agenda, its priorities, as well as the availability and destination of available multilateral funds, such as the UNWTO, the OECD, the IDB, and the European Commission itself.

Among the American countries with destinations that have implemented the Spanish DTI model with the assistance of SEGITTUR, Colombia stands out as the first country in the American region to include in its Tourism Law an express reference to the concept of Smart Tourism Destinations, in Article 11. The Spanish DTI model has been implemented in Medellín (Department of Antioquia), Bogotá (Bogotá Capital District within the Department of Cundinamarca), Santiago de Cali (Department of Valle del Cauca), and Bucaramanga (Department of Santander).

Secondly, we should highlight Mexico, where a first pilot DTI diagnosis was carried out on the island of Cozumel, which unfortunately did not continue over time, and the successful project in Tequila (State of Jalisco), where the DTI model has been implemented and been developing for over 4 years until becoming recognized as a Smart Tourism Destination in 2022.

Two other recent successful implementations of the DTI model in the Americas are the capitals of Uruguay, in Montevideo, and Paraguay, in Asunción. In both cases, a very strong commitment has been made to the model, which in the case of Paraguay has been directly promoted by the Ministry of Tourism of Paraguay. The case of Cuba is also worth mentioning, where the Ministry of Tourism of Cuba has undertaken to implement a pilot of the DTI model in Cayo Largo del Sur and at the same time adapt the methodology to the specific situation of Cuba.

Apart from the aforementioned initiatives that have made a commitment to the implementation of the Spanish DTI model and have had the direct support of SEGITTUR in the process, there are other initiatives in Latin America that, based on an adaptation of their own model, are also developing their own DTI model. This is the case of Brazil, which has adapted the UNE 178501 and 178,502 standards to the Brazilian context in an initiative led by the Brazilian Ministry of Tourism itself. The main destinations in Brazil where the model is being implemented include Rio Branco and Palmas in the North, Recife and Salvador in the Northeast, Campo Grande and Brasília in the Midwest, Florianópolis and Curitiba in the South, and Rio de Janeiro in the Southeast. Argentina has also developed its own network of smart destinations, as well as a standard equivalent to UNE 178501. Finally, it should be mentioned that in 2022, the first Ibero-American Network of Smart Tourism Destinations was created with the support of tourism destinations in Mexico, Brazil, Argentina, Colombia, and Uruguay. They are currently in the process of consolidating the Network.

Proof of the interest and enthusiasm that the DTI initiative has aroused among Latin American countries can be seen in the fact that many of them have attended the three international conferences on smart destinations that have been held to date in Spain in conjunction with the UNWTO: in Murcia in 2017, in Oviedo in 2018, and the most recent one held in Valencia in November 2022.

Appendix

John Mora has been shaping sectoral solutions and policies for the competitive development of tourism and its social and territorial impact for more than 25 years. His main focus is the design of sectoral models for accelerating digital and green transitions, integrating stakeholders to project scenarios and defining operational frameworks. He is an expert in the tourism domain in the combined aspects of strategy, technology and innovation. He has developed his expertise for governments and corporations in more than 11 countries and international organisations. As CEO of Globaldit he leads teams in the development of business lines and promotes active collaboration scenarios with public and business stakeholders. As VP of the Smart Cities Commission of Ametic, he promotes the approach of the digital industry to the tourism industry with large tractor and specialised companies for the creation of strategic spaces for innovation in tourism.

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References

- AENOR. (2014). *El papel de las normas en las ciudades inteligentes*. Informes de Normalización. Comité AEN/CTN 178. Retrieved from: <https://static.esmartcity.es/media/2016/12/20140723-aenor-papel-normalizacion-ciudades-inteligentes.pdf>
- Borja-Solé, L., Andreu-Casanovas Pla, J., & Bosch-Campubrí, R. (2002). El Producto turístico. In *El Consumidor Turístico* (pp. 40–76). ESIC Ed.
- Buhalis, D., & Amaranggana, A. (2013). Smart tourism destinations. In *Information and communication technologies in tourism 2014: Proceedings of the international conference in Dublin, Ireland, January 21–24, 2014* (pp. 553–564). Springer International Publishing.
- Caragliu, A., Bo, C. F. d., & Nijkamp, P. (2009). Smart cities in Europe. *Journal of Urban Technology*, 18, 65–82.
- Celdrán-Bernabeu, M. A., Mazón, J. N., & Giner, D. (2018). Open data y turismo. Implicaciones en la gestión turística en ciudades y destinos turísticos inteligentes. *Revista Investigaciones Turísticas*, 15, 49–78.
- Consejo de Ministros. (2019). *Agenda Urbana Española*. Available at: <https://apps.fomento.gob.es/CVP/handlers/pdfhandler.ashx?idpub=BAW061>
- Crouch & Ritchie. (2003). *The competitive destination. A sustainable tourism perspective*. CABI Publishing.

- European Parliament. (2014). Mapping Smart Cities in the EU, Directorate-General for Internal Policies, Policy Department, Economic and Scientific Policy. [https://www.europarl.europa.eu/RegData/etudes/etudes/join/2014/507480/IPOL-ITRE_ET\(2014\)507480_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/etudes/join/2014/507480/IPOL-ITRE_ET(2014)507480_EN.pdf)
- EURYDICE. (2022). *Spain: Population: demographic situation, languages and religions*. Retrieved from: <https://eurydice.eacea.ec.europa.eu/national-education-systems/spain/population-demographic-situation-languages-and-religions>
- Fernández Güell, J. M. (2015). Ciudades inteligentes: la mitificación de las nuevas tecnologías como respuesta a los retos de las ciudades contemporáneas. *Economía Industrial*, 395, 17–28.
- Glaeser, E. (2011). *El triunfo de las ciudades*. Taurus.
- Iglesias-Sánchez, P. P., Correia, M. B., & Jambrino-Maldonado, C. (2019). Challenges of open innovation in the tourism sector. *Tourism Planning & Development*, 16(1), 22–42.
- INE. (2013). Cuenta Satélite del Turismo de España. Base 2008, Serie 2008–2012. Available at: <https://www.ine.es/prensa/np829.pdf>
- INE. (2022). Cifras de población resultantes de la Revisión del Padrón municipal a 1 de enero de 2022.
- Ivars, J., (2014). Destinos Turísticos Inteligentes Comunitat Valenciana. https://invattur.es/uploads/entorno_37/ficheros/626905489baf21583379105.pdf
- Ivars-Baidal, J., et al. (2017). Guía de implantación de Destinos Turísticos Inteligentes de la Comunitat Valenciana.
- Lopez de Avila Muñoz, A., & García Sánchez, S. (2013). Destinos turísticos inteligentes: Antonio López de Ávila, Presidente de Segittur. *Deusto Business Review*, 224, 58–67.
- Manente, M. (2008). Destination management and economic background: Defining and monitoring local tourist destinations. In *International conference on measuring tourism economic contribution at sub-national levels* (Vol. 10, pp. 1–21).
- Ministerio de Asuntos Económicos y Transformación Digital. (2015). Plan Nacional de Territorios Inteligentes. Disponible en: https://plantl.mineco.gob.es/planes-actuaciones/Bibliotecaciudadesinteligentes/Detalle%20del%20Plan/Plan_Nacional_de_Ciudades_Inteligentes_v2.pdf
- Ministerio de Industria, Energía y Turismo. (2012). National Integrated Tourism Plan 2012–2015. Available at: <https://turismo.gob.es/es-es/servicios/Documents/Plan-Nacional-Integral-Turismo-2012-2015.pdf>
- OMT. (2017). Innovación, Tecnología y Sostenibilidad: Pilares de los destinos inteligentes. <https://www.unwto.org/es/archive/press-release/2017-03-07/innovacion-tecnologia-y-sostenibilidad-pilares-de-los-destinos-inteligentes>
- Orejón-Sánchez, R. D., Crespo-García, D., Andrés-Díaz, J. R., & Gago-Calderón, A. (2022). Smart cities' development in Spain: A comparison of technical and social indicators with reference to European cities. *Sustainable Cities and Society*, 81, 103828. <https://doi.org/10.1016/j.scs.2022.103828>. PwC-IEBS
- Porter, M. E. (1990). What is national competitiveness? *Harvard Business Review*, 68(2), 84–85.
- Ritchie, J. R. B., & Crouch, G. I. (2003). *The competitive destination: A sustainable tourism perspective*. CABI.
- SEGITTUR. (2015). *Libro Blanco de los Destinos Turísticos Inteligentes*. <https://www.segittur.es/wp-content/uploads/2019/11/Libro-Blanco-Destinos-Turísticos-Inteligentes.pdf>
- Shafiee, S., Ghatari, A. R., Hasanzadeh, A., & Jahanyan, S. (2019). *Developing a model for sustainable smart tourism destinations: A systematic review*. Tourism Management Perspectives.
- UIT. (2021). Ciudades inteligentes y sostenibles. <https://www.itu.int/es/mediacentre/backgrounders/Pages/smart-sustainable-cities.aspx>
- UNE. (2021). La Revista de la Normalización Española. N°32, enero. <https://revista.une.org/32/ctn-178-ciudades-inteligentes.html>

- United Nations. (2015a). *Transforming our world: the 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981>
- United Nations. (2015b). *World urbanization prospects: The 2014 revision*. Department of Economic and Social Affairs, Population Division. Available at: <http://esa.un.org/unpd/wup/Publications/Files/WUP2014-Report.pdf>
- United Nations General Assembly. (1987). *Report of the world commission on environment and development: Our common future*. United Nations General Assembly, Development and International Co-operation: Environment. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
- Villarejo, H. (2015). Smart Cities, una apuesta de la Unión Europea para mejorar los servicios públicos urbanos. *Revista de estudios europeos*, 66, 25–51. <https://dialnet.unirioja.es/servlet/articulo?codigo=5488698>
- Wang, X., Li, S., Zhen, F., & Zhang, J. (2016). How smart is your tourist attraction? Measuring tourism preferences of smart tourist preferences of smart tourism attractions via a FCEM-AHP and IPA approach. *Tourism Management*, 54, 309–320.
- World Economic Forum (WEF). (2008). The travel and tourism competitiveness report 2008: Balancing economic development and environmental sustainability. Available at: https://ub.unibas.ch/digi/a125/sachdok/2014/BAU_1_6306075.pdf
- World Economic Forum (WEF). (2009). The travel and tourism competitiveness report 2009: Managing in a time of turbulence. Available at: http://www.caribbeanelections.com/eDocs/development_reports/ttcr_2009.pdf
- World Economic Forum (WEF). (2011). The travel and tourism competitiveness report 2011: Beyond the downturn. Available at: <https://www.globalwellnesssummit.com/wp-content/uploads/Industry-Research/Global/2011-WEF-Travel-Tourism-Competitiveness-Report.pdf>
- World Economic Forum (WEF). (2013). The travel and tourism competitiveness report: Reducing barriers to economic growth and job creation. Available at: <https://reports.weforum.org/travel-and-tourism-competitiveness-report-2013/>
- World Economic Forum (WEF). (2015). The travel and tourism competitiveness report: Growth through shocks. Available at: https://www3.weforum.org/docs/TT15/WEF_Global_Travel&Tourism_Report_2015.pdf
- World Economic Forum (WEF). (2017). The travel and tourism competitiveness report: Paving the way for a more sustainable and inclusive future. Available at: https://www3.weforum.org/docs/WEF_TTCR_2017_web_0401.pdf
- World Economic Forum (WEF). (2019). The travel and tourism competitiveness report: Travel and Tourism at a Tipping Point. Available at: https://www3.weforum.org/docs/WEF_TTCR_2019.pdf

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The Pillar of Governance in the Spanish Smart Tourism Destinations (DTI) Model



SEGITTUR and Lidia Andrades

Abstract Governance is an essential element of the DTI model, which recognizes the complexity of managing an industry as sensitive as tourism to changes in the economic, institutional, social, or technological environment. In this context, governance constitutes a critical aspect of a DTI model that can only be promoted from the transversality of the actions and from an integrating and coordinated vision, generated in a framework of collaboration with the participation of public entities, the private sector, and the social agents involved. After a review of the concept of tourism governance and the role of Destination Management Organizations (DMOs) in it, the chapter focuses on presenting how governance is integrated into the DTI model. This pillar represents a weight of 12.4% of the model and is articulated through 12 requirements and 26 indicators through which the performance of the destination is evaluated in four areas: Vision, strategic planning and implementation; Efficient management; Transparency and participation; and Responsibility and control. Finally, the chapter purposefully contains the main recommendations that are usually made to destinations when implementing the DTI model in terms of governance.

1 Introduction

This chapter looks at the governance pillar within the smart destination strategic management model, following the same structure as the other chapters that address the pillars of the smart destination model (Fig. 1): an introduction providing context

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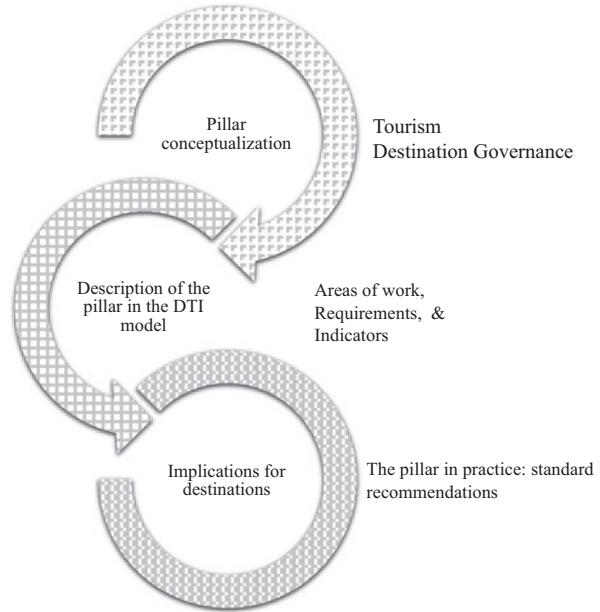
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Fig. 1 Chapter outline

for the theme of the pillar, in this case, tourism governance; a description of how the smart destination model coordinates governance of the destination to ensure that it is “smart” and capable of supporting all the activities it performs within the framework of its smart destination strategy; and a practical section to illustrate the typical recommendations that are usually made to destinations following the initial diagnosis in the scope of their governance.

2 Approach to the Concept of Governance

As is well known, the governance of a society encompasses all government processes, procedures, and practices, developed by its institutions to decide and regulate the corresponding issues (ONU, 2022). These government processes entail the exercise of economic, political, and administrative authority to make decisions. Depending on how this authority is exercised, there are different governance models.

To define the governance model in force in a society, we could ask ourselves the following questions: Who has the power and is entitled to make decisions? Who has a voice and a vote when decisions are made? How can the different groups and stakeholders affected express and enforce their opinions? And how are decision makers held accountable to those affected by their decisions?

In the twenty-first century, in democratic societies, the governance function is a two-way undertaking that requires cooperation, since public–private interdependence is acknowledged, as well as the need to interact and involve the different

stakeholders in the area when making decisions affecting them. With this in mind, governance decisions are adopted by consensus with a view to reconciling the interests of all stakeholders affected by them, involving them in the decision-making process. The aim is also for the decision-making process to be efficient, transparent, and honest. Decision-making must also be auditable and assessable, rendering accounts to society.

In short, the basic management principles inspiring the governance of a territory will be efficiency, responsiveness, accountability, transparency, and participation with shared responsibility. With this in mind, “The European Governance: A White Paper” (European Commission, 2001) identifies efficiency, coherence, openness, participation, and responsibility as pillars of good governance.

Efficiency because the measures adopted by the government must respond to and solve existing challenges; they must be also timely, achieving the results sought on the basis of clear starting objectives and capable of being followed and measured, verifying the impact in the short, medium, and long term.

Coherence because the policies developed and the actions undertaken must be aligned with one another, avoiding overlaps or incompatibilities, facilitating their understanding, acceptance, and avoiding ambiguities.

Openness refers to the fact that an open framework is encouraged, facilitating active and fluid communications between all stakeholders involved. To this end, participation and collaboration shall be encouraged among all stakeholders throughout the governance process: from the design of strategies and actions to their implementation, monitoring, and evaluation.

Finally, encouraging participation entails each stakeholder assuming their share of responsibility in the process. To this end, it is essential that the roles played by each stakeholder within the social system are well defined and communicated.

Having offered a general instruction to the concept of the governance of a territory, and stating its guiding principles, we will look at governance in the field of the tourism sector in the next section of this chapter. The aim will be to establish the premises for defining governance of tourism destinations that aspire to be managed in a “smart” way.

3 Governance in the Context of Tourism Management

The concept of territorial governance adapted to the context of the tourism sector refers to how the different areas and levels of action are managed in tourism destinations, pursuing the effective management of tourism activity in the territory that forms part of the tourism destination (Hall, 2011). In line with the principles of governance reflected in the previous section, the UNWTO proposes efficiency and transparency as guiding principles for the governance of tourism destinations, facilitating coordination, collaboration, and/or cooperation between the different groups in the destination. It also indicates that tourism governance must be subject to assessments and audits and that it must be accountable, guaranteeing the prevalence

of collective interest and the achievement of goals shared by the network of stakeholders in the tourism value chain. Thus, good tourism governance must be capable of offering solutions and generating opportunities for the sector, promoting agreements based on the recognition of interdependencies and responsibilities shared by all stakeholders in the tourism system (UNWTO, 2021).

Based on the foregoing, destination governance is responsible for designing and providing a context where the interests of the sector, companies, citizens, and tourists converge with tourism policies. Governance of the destination consists of making consensual strategic decisions that shape the politics of the destination, setting objectives and designing plans to achieve them (Joppe, 2018). Figure 2 represents the areas of action of tourism governance and its main stakeholders.

From this figure, it can be deduced how tourism policy in the destination, the development strategies adopted, and its daily management involve coordinating, listening to, and satisfying the needs and interests of all stakeholders affected by the tourism development being promoted: tourists, residents in the destination and tourism attractions, both private and public. To achieve this, it is essential for the tourism governance model implemented to be a participatory and equitable model, co-created by everyone based on shared commitment and responsibility. Furthermore, the model must be flexible and revisable, open to experimentation, encouraging the development of best practices, shared among stakeholders in the destination, generating and transferring knowledge (Hall, 2011). The fact that the institutions have clear mandates, well-defined objectives, political support, and effective leadership from the central administration will also contribute to effective tourism governance, facilitating the periodic review of their results (OECD, 2017).

Although the literature on what good governance should look like is extensive, in practice, whether destination management satisfies the principles that should inspire it will depend on the existence of a management structure in the destination that has qualified and motivated staff capable of exercising leadership and serving



Fig. 2 Tourism governance, stakeholders involved, and spheres of action

as a meeting point for all stakeholders involved in tourism development, aligning the destination’s strategy around the interests shared between them. These destination management structures, responsible for the governance of the destination, are known as “Management Entities,” “Tourism Management Entities,” or alternatively “Destination Management Organizations” (DMOs). DMOs are the main organizational units in the destinations and are made up by the different authorities, stakeholders, and professionals operating in the destination, with a view to promoting partnerships between them that facilitate the materialization of their shared vision of the tourism destination (Fig. 3).

DMOs do not apply a single organizational and legal formula observable across all destinations. To achieve their objectives, DMOs can adopt different organizational formats and models, depending on whether destination management falls to a single public authority or whether it is a shared management model supported by public–private partnerships. The idiosyncrasy of each destination will be reflected in its management formula, which will respond to the inclusion and adaptation of a variety of aspects: such as the administrative organization of the destination, the degree of maturity of the destination and the stakeholders involved, their priorities, the challenges identified and that it aims to achieve, etc.

Looking deeper at the functions of DMOs, they are responsible for leading, promoting, defining, planning, managing, coordinating, and monitoring all activities related to the implementation of tourism policies, strategic destination planning, and marketing. In terms of marketing the destination, the work of DMOs is vital, as they are responsible for structuring the products and services on offer, developing products or managing existing products, such as conference centers or convention centers, selecting target markets, leading the promotion and marketing of the destination, identifying and creating competitive advantages and managing possible crises (UNWTO, 2019). To guide the actions of the DMOs, the UNWTO has identified

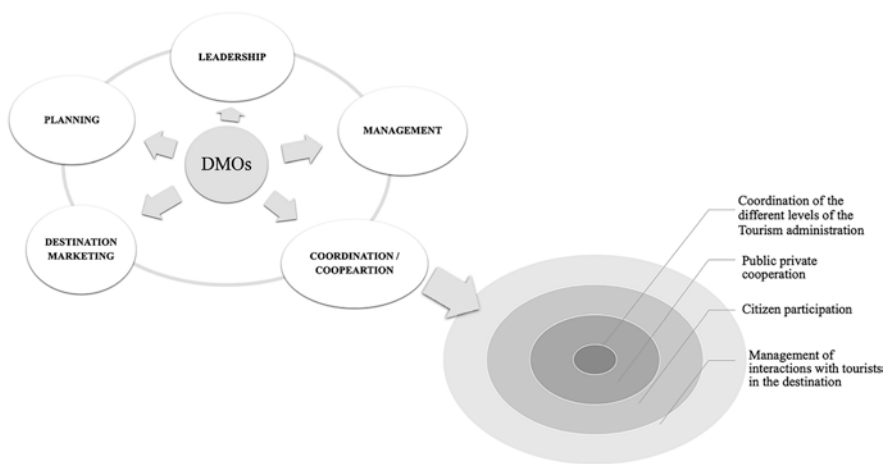


Fig. 3 Functions of Destination Management Organizations (DMOs)

three key aspects that must be prioritized to ensure that governance of the destination is effective, therefore positioning it correctly to overcome its management challenges:

- Strategic leadership, taken as meaning the ability of the DMOs to combine efforts, channeling the energies and resources of stakeholders, promoting public–private strategic partnerships, in favor of a shared vision, making it possible to achieve collective objectives. Furthermore, this leadership will be reflected in the ability of the DMOs to plan the destination’s strategy to achieve these objectives, as well as in their ability to communicate the advantages and suitability of implementing the agreed strategic plan, involving the stakeholders in its implementation. With this in mind, the performance of the DMOs is key to explaining the competitiveness of destinations.
- Efficient implementation in the different areas of responsibility linked to destination management, meaning that their functions are clearly defined, avoiding responsibilities that overlap with other tourism organizations that operate in the destination, while coordinating with them. Furthermore, with a view to assessing the effectiveness of the implementation process, it is essential for the DMOs render accounts of their activity on a regular basis, in the exercise of their powers, assessing the extent to which their management contributes to reaching the destination envisioned in their strategic planning.
- Efficient governance, understood as a destination management system that is effective, transparent, participatory, responsible, inclusive, that acts within the framework of the SDGs (ONU, 2015), that is accountable at all times for its work and that strives to raise awareness and guide the industry in terms of quality and excellence, prioritizing a model of sustainable and responsible tourism development. In relation to this desired efficiency, it is important to point out that its achievement will be mediated by the distribution of powers between the different stakeholders that form part of the tourism value chain in a specific destination: When power is held by a minority, it is easy for the interests of the rest of the stakeholders to not be sufficiently represented in decision-making process as regards destination management (Beaumont & Dredge, 2010). With this in mind, it is desirable that the destination’s governance be structured in such a way as to ensure the representation and participation of all stakeholders that form part of the tourism value chain (Welsey & Pforr, 2010), regardless of their influence. With this in mind, the DMOs must define a governance model that regulates the exchange between stakeholders, minimizing opportunistic behavior, promoting trust, building long-term relationships, creating strategic partnerships, and transferring incremental innovations.

To round off this section, it should be noted that the work of the DMOs is particularly complex, since, from the outset, the tourism industry is difficult to manage as it is very sensitive to changes in the economic, social, legal, technological environment, etc. In addition, the tourism industry must integrate and coordinate the offer of multiple stakeholders, with very different interests, which together shape the value proposition offered by the destinations, and who is responsible for the tourists

feeling welcomed and enjoying their stay. Given the importance of the actions of the DMOs as backbone of the destination's tourism attractions, the next section reflects on a number of coordination aspects that the DMOs should bear in mind to achieve the necessary strategic leadership in tourism destinations.

4 The Work of the DMOs, the Challenge of Coordination

The starting point for effectively organizing the activity of the DMOs is to understand the interdependencies, connections, and collateral effects that occur between tourism and other areas of public management. In particular when taking into account that destinations do not always correspond to administrative units, complicating the coordination and execution of the different tasks to be performed to support tourism activity. Inevitably, any strategy to be implemented will involve considering mutual dependencies, identifying common interests shared by tourism and other areas of the local administration and/or public agencies, seeking synergies and complementarities. Analyzing how the decisions made in tourism affect and add value to other areas of public management will help facilitate the work of DMOs, promoting multisectoral policies, increasing their effectiveness and harnessing synergies (OECD, 2017). With this in mind, for example, actions performed to enhance the value of and promote the unique cultural heritage of the destination will have a positive impact on its image and will indirectly reinforce the brand image of local products, facilitating their marketing (Elliot et al., 2011). Or the actions designed to promote inclusive growth will place a priority on small-scale commercial transactions between local companies. Investments to renovate or maintain accommodation, transport infrastructures, etc., benefit not only tourists but also the local population. The same goes for actions aimed at protecting the environment. Considering these interconnections will undoubtedly improve the coherence and effectiveness of public policies, as well as the actions performed in collaboration with the private sector. This fact justifies the inclusion in the governance pillar of the smart destination model of "efficient management," a series of requirements linked to the creation and proper functioning of administrative coordination structures in the destinations.

Once the dependencies and shared interests have been identified, it will be necessary to establish institutional agreements that harness the political synergies that occur when knowledge is shared and work is coordinated, adopting a global perspective, with a long-term vision, aimed at promoting innovation and the competitiveness of the destination. To this end, beyond the work of the DMOs, the leadership of the central government for the development of a cohesive and coherent tourism policy is critical (OECD, 2017). Given that the provision of tourism services, by nature, is linked to the availability of other types of additional services, not inherent to tourism, coordination is required between multiple state public management departments, as well as regional and local governments. Aligning policies and efforts will allow destinations to appropriately respond to temporary and structural

changes, that occur in the technological, social, environmental, political, health spheres, etc. To this end, creating discussion forums and multi-sector and multi-level communication platforms can be very useful.

Discussion forums will help to better identify the current and potential positive impacts that tourism can have across all levels (local, regional, and national), given that different administrations are involved in the provision of services to tourists. For example, at the local level, tourism contributes to the appreciation of local gastronomy and local food production, providing a rationale for strengthening environmental preservation and the protection of what is native to the destination. The same can be said at a regional or national level, helping to reinforce the image of the destination associated with its unique products and reinforcing the production system of the country, region, or town/city. With this in mind, effective tourism management provides for a positive environment for the creation and proliferation of small-scale businesses, both in urban and rural areas, increasing the industrial capacity of the territory and employment opportunities for the population. By stimulating economic activity in the destination, it is possible to encourage an improvement in skills, knowledge and professional qualifications, which in turn fosters the definition of new quality standards, leading to the emergence and consolidation of good practices, improving competitiveness, feasibility, and quality of life in the territory in the long term. Eduardo Parra reflects, in the box below, over the relevance of human capital at DMOs, as a catalyst to boost the success when adopting smart tourism destinations strategies.

4.1 People, Innovation, and Regeneration of Tourism: Delimiting Factors in Smart Tourism Destinations

Smart Tourism Destinations entail a transformative process that traditional destinations undergo, changing certain existing elements of the tourism ecosystem without excluding the introduction of new ones. In other words, it consists of maintaining and preserving the knowledge and skills developed over decades to address new developments and models using human resources that lack certain skills. At present, tourism destinations face the challenge of the significant decapitalization of tourism knowledge in favor of other more attractive industries from the perspective of personal stability. Therefore, building a good base of organizational social capital that balance the competitive advantage of destinations, structured around social relations within the business ecosystems, will facilitate the successful collective action of smart tourism destinations, thus creating a unique long-term asset, fostering trust, and putting in place the mechanisms that improve motivation, innovation and creativity within them.

This requires a collective intelligence approach to support the smart tourism destination managerial approach, it's the central pillar of which is a capacity for collective behavior within the system, facilitating a degree of decentralization and self-organization in a natural and artificial way. This disruptive and innovative approach is linked to three key aspects: a) Bottom-up approach in the management of tourism companies; b) Maximum collaboration in the people ecosystem (smart governance), with digital tools as a driver; and, c) Generation of interconnectivity between organizations and people within the tourism sector. As a result,

a differential binomial emerges within the smart tourism destination approach: human innovation for tourism versus the regeneration of tourism.

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Multi-level communication platforms facilitate the integration of different government policies, promoting the communication and coordination of the work of governments, across different levels, linked to the provision of tourism services: efforts aimed at implementing policies and actions to ensure the availability of the necessary structures to support tourism. Furthermore, these platforms will connect governments to industry and civil society, promoting dialogue and joint work. To this end, when designing these connection and communication platforms, priority must be given to encouraging interdepartmental, horizontal, and vertical cooperation between the different levels and spheres of government, as well as with industry and the scientific community, which is decisive and largely responsible for the tourism competitiveness of a destination. Having stable work platforms in place will facilitate the development of a multi-agent model that stimulates the desired levels of cooperation and coordination between all relevant government areas, at their different levels. When these platforms are operational, it will be easier for the central government to lead, promote, and integrate policies, not only specific to tourism, but also in relation to areas including mobility and transport, environment, culture, economy, immigration, science and technology, education, urban planning, land management, etc. In addition, these platforms contribute to: (i) a clearer definition of the roles and functions of the different levels of government in tourism administrations; (ii) involving both civil society and industry in the design and decision-making process in relation to tourism policy; (iii) adopting effective mechanisms for involving the different stakeholders and ensuring their participation; (iv) identifying the necessary resources for its implementation and creating tools to monitor their functioning (OECD, 2017).

Finally, beyond the national level, the envisaged leadership of the DMOs should promote closer cooperation between relevant international organizations, reducing the duplication of efforts, harnessing resources and seeking synergies that facilitate more coherent policy development. This cooperation will also be beneficial when it comes to identifying trends, challenges, and potential threats to be overcome. With this in mind, common challenges facing the sector, as regards the impacts caused by tourism, resource management, sustainable production, consumption and waste management, will be addressed from a multinational perspective; this will make it possible to harness experiences and knowledge available in other environments, but that are transferable to the destination.

Faced with these coordination challenges, innovation and technology can simplify and improve the performance of DMOs. However, for this to be possible, the governance of the destination must function as the backbone of its management, as it will be the DMOs who are responsible for promoting innovation and using the available technological tools to make the destination competitive, sustainable, accessible, and ultimately meet its strategic objectives. As will be seen in the fourth

section, all these needs were considered as part of the governance pillar of the smart destination model.

5 Governance and Tourism Competitiveness

Once the conceptualization of tourism governance has been approached, it is easy to sense how destination governance affects competitiveness. There is a clear interdependence between how the governance of a destination is structured and how its management processes are designed, as well as its subsequent performance (Berne et al., 2012; Soares et al., 2022). With this in mind, when governance is effective, the destination’s policy sets the right direction, establishing a strategic plan that positions the destination in the long term, generating opportunities for companies and residents, as well as promoting memorable and satisfying experiences for visitors to the destination.

Figure 4 represents the model proposed by Ritchie and Crouch (2003) to describe the determining factors in the competitiveness and sustainability of a tourism destination. According to these authors, the tourism competitiveness of a territory depends on the resources it has access to (comparative advantages), but also on the destination’s ability to compete, which will be dependent on its ability to effectively and efficiently manage its resources (competitive advantages). As part of the theoretical framework offered by this model, the governance system of the destination constitutes a strategic aspect linked to two of the pillars that the model identifies as



Fig. 4 Main determinants of tourism destination competitiveness and sustainability. Source: inspired on Crouch (2011), p. 29

determining factors in the tourism competitiveness of destinations: destination policy and planning; and operational destination management. With this in mind, the definition of the destination's governance system has a direct impact on its competitiveness (Sorokina et al., 2022). Hence, the DTI model considers this as a backbone of smart tourism destinations. As Crouch (2011) illustrated, "destination policy, planning and development" consists of architecting the tourism system at destinations, stating their mission, vision, values, as for instance "pursuing a sustainable tourism development," specifying the objectives which concrete their shared vision for the destination, and defining the strategies to achieve those objectives. Additionally, monitoring the implementation of the agreed strategic plan assures its effectiveness and closes the destination policy management cycle. Complementary to the long-term destination policy, the operational management at the destination fosters the marketing strategy, optimizing the available resources and gathering the needed capacities to supply memorable experiences to tourists, at the time that improve the residents quality of life.

Since DMOs are the entities in charge of designing and implementing the described activities, they must also administrate the supporting and core resources of the destination, encouraging private companies collaboration when designing the mix of activities to be promoted, activities defined to value the endowed natural and cultural resources of the destination. Consequently, DMOs must boost the development of a coherent tourism supply which matches the shared destination mission and values. Moreover, following the proposed model by Ritchie and Crouch, DMOs should additionally manage the set of qualifying and amplifying determinants, as destination image or destination carrying capacity, to enhance the tourism competitiveness of the destination.

For all the abovementioned, when DMOs structure the decision-making processes efficiently, ensuring coherence, transparency, participation, consideration of the interests of all stakeholders (Moscardo, 2014), etc., there will be a drop in transaction and coordination costs throughout the value chain of the tourism destination, fostering collaboration between the different stakeholders and their commitment to the co-creation of value in the destination (Matteucci et al., 2022; Song et al., 2013).

Beyond the existing relationship between governance and competitiveness, it is worth mentioning that governance also has a positive impact on the sustainability of the destination (Bramwell & Lane, 2011; Dredge & Jamal, 2013). Intuitively speaking, it is easy to assume that when the destination has managed to consolidate a system of participatory governance, it will be easier to achieve its goals in terms of social, economic, and environmental sustainability (De Zoysa, 2022). With this in mind, good destination governance has a direct impact on its competitiveness, as well as an indirect impact, since destinations where good governance is in place will be more sustainable and therefore more competitive (Volgger & Pechlaner, 2014). See Professor Larry shared reflection on the importance of measuring and evaluating competitiveness. As readers will found out across next pages, DTI Model provides a practical tool to track and assess many of the aspects affecting tourism destination competitiveness.

5.1 *Importance of Measuring/Evaluating Competitiveness*

Destination competitiveness is generally associated with features such as destination 'attractiveness', quality of experiences offered, superior performance in the delivery of goods and services to meet tourists' needs, and contribution to resident socio-economic prosperity currently and in the future. What researchers have offered by way of model development is best characterized as an identification of features that support the capacity or ability of a destination to deliver certain objectives deemed to be worthwhile, rather than a precise definition of the concept itself. Each of these established frameworks attempts to provide a strategic tool identifying the drivers of destination competitiveness, to make cross-country comparisons of destination performance, to identify the challenges that require policy attention in tourism industry development, and to benchmark destination progress in improving competitiveness. These frameworks also help destination managers to formulate strategies for tourism development based on identification of key strengths and weaknesses of a destination, the opportunities for tourism development arising from comparative and competitive advantage, and the weaknesses and challenges that must be overcome.

The frameworks developed to assess destination competitiveness differ in structure as well as the preferred set of indicators. Key performance indicators used to assess destination competitiveness include outcomes such as tourism numbers and expenditure (domestic and international), change in destination market share, tourism contribution to GDP, value added and employment in total and per capita, and tourist satisfaction. The established frameworks employ a substantial number of both quantitative and qualitative measures that are taken to support destination performance. Commonly accepted indicators relate to the quantities and qualities of attributes with tourism drawing power such as endowed resources (natural, social and cultural/heritage); created resources (accommodation, restaurants, shopping facilities, entertainment areas, built heritage, special events); supporting or enabling factors (general and tourism related infrastructure, information and communications technologies, transport links, quality of service, friendliness of host population, government support for tourism development, market ties, health and hygiene, availability of finance and venture capital); destination management strategies (destination marketing management, positioning/branding, destination policy, planning and development, crisis management, rules and regulations, business strategies, human resource management, environmental management); demand conditions, including destination awareness/image and price competitiveness; and situational conditions that exist at any given time in both the operating situational conditions that exist at any given time in both the operating and wider environments (location, safety/security and carrying capacity). There is no fixed set of destination competitiveness indicators applicable to all destinations at all times. Application of a ranking system in meeting identified indicators enables comparison of the competitiveness of different destinations. All ranking systems require weighting schemes that require value judgements to be made concerning which objectives of tourism development are most valued by stakeholders.

While the ultimate objective of achieving a competitive tourism destination is to enhance resident well-being, the established frameworks continue to treat well-being outcomes in an ad hoc rather than strategic manner. Broader measures of social progress that go beyond the standard destination performance measures identified in the established frameworks have an essential role to play in destination competitiveness assessment. Distinguishing the sources of current and future well-being, also allows sustainability considerations to be embedded into the study of destination competitiveness. To date, the destination competitiveness research effort has failed to address the essential dynamics of the concept of sustainability, neglecting the role of changing capital stocks as sources of resident well-being. Given the centrality of resident well-being outcomes to destination competitiveness, tourism destinations must now face the challenge of attracting the 'right type' of customer –

those who will enhance resident well-being outcomes. No longer can the ‘ideal tourist’ be regarded as simply a ‘big spender’. Expanding the capacity of tourism to enhance the well-being of destination communities, present and future, will require fundamental changes in attitudes to tourism planning, development, management and destination marketing. Expected outcomes include a more comprehensive view of the sources of destination competitiveness, greater clarity regarding the links between competitiveness and ‘well-being’, and identification of the appropriate instruments to enhance resident well-being over the longer term.

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6 Background to the Governance Model Underlying the DTI Model

As will be seen in the coming pages, the governance pillar of the DTI model contemplates a series of areas of action and requirements for each one of them, encouraging the destinations that adopt this model to assume a specific governance style. This style of governance underlying the DTI model is the result of the different tourism policies that were implemented in Spain, addressed in chapter “Origin of the Spanish Smart Tourism Destinations Program,” and that have given rise to Spain as the tourism destination it is today.

The first relevant milestone to worth mentioning is the creation of the Tourism Boards and Municipal Tourism Institutes in the destinations, in the 1980s and 1990s, when policies focused particularly on promoting the destination. From this moment on, the destinations had their own structures for supporting tourism.

Following this milestone, at the end of the twentieth century, Spanish tourism policy sought to improve the competitiveness of destinations, enhancing their products and services as well as their international positioning, as reflected in the Plan Futures (1992–1996).

These plans were followed by the Comprehensive Plan for the Quality of Spanish Tourism (PICTE), 2000–2006, aimed at improving quality as the source of a competitive advantage.

After this came Spanish Tourism Plan Horizon 2020 (2008–2012), which continued on the path of reinforcing Spain’s tourism competitiveness, emphasizing the importance of innovation, while most importantly recognizing the need to make progress toward a model of sustainable tourism development in all its dimensions (Consejo de Ministros, Gobierno de España, 2007). Thus, the plan set out the following general objective:

Promoting the application of new methodologies and criteria for the planning and management of tourism destinations based on public-private joint responsibility, capable of integrating and developing a strategic vision of the tourism model that, from a market perspective, considers territorial development, environmental quality, the quality and professionalism of tourism services and social welfare (Spanish Tourism Plan Horizon, 2020, p. 58).

At this time, the Support Program for the Promotion of Destinations was launched, leading to the creation of “Mixed Tourism Management Entities,” which constituted the seed for the current governance model, set out in the National Integrated Tourism Plan (PNIT) 2012–2015 (Secretaría de Estado Comercio, Turismo y Pyme, 2000). This plan introduced the concept of the smart destination, giving rise to what is now known as the strategic smart destination management model. The document sets out what it means to be a “smart destination” and how being one contributes to the sustainable management of the destination, prioritizing the development of a high-quality tourism attractions, boosted by the adoption of ICT solutions in the provision of services.

At present, Spain’s 2030 Sustainable Tourism Strategy proposes a tourism growth model for the coming years based on the principles of:

1. Socio-economic growth, driven by the improvement of the competitiveness and profitability in the sector, making a commitment to quality, accelerated by the digital transformation process;
2. Preservation of natural and cultural resources, as a distinguishing strategic factor for maintaining the position and attractiveness of Spain’s tourism attractions;
3. Social benefit, pursuing the fair distribution of the sector’s benefits, while attempting to respond to problems such as the depopulation of rural areas in Spain;
4. Generalization of a system of participatory tourism governance, coordinating the necessary mechanisms for effective reciprocal cooperation by the state and the competent administrations across all levels.

With this in mind, the DTI model and its different lines of action can be traced back to the priorities that the Spanish tourism policy has identified over time as pillars and sources of competitive advantages for the sector. And in particular, the governance pillar is significantly influenced by the creation of *Mixed Tourism Management Entities* and the need to improve tourism competitiveness by structuring and positioning high-quality products and services, generated as part of a sustainable tourism development model. The next section analyzes and describes how the tourism governance system pursued by the strategic smart destination management (DTI) model has been designed to achieve these purposes.

7 The Pillar of Governance in the DTI Model

This section describes how the DTI model considers that the governance of tourism destinations should be constructed in such a way that their management is smart, while facilitating the achievement of their strategic objectives in the other pillars.

At present, following the most recent review performed in 2022, the governance pillar has gained relative weight compared to the other pillars, with said weight having increased from 11% of the total to 12.6% (SEGITTUR, 2021). As has been seen, the weight of each pillar in the smart destination model responds to the proportion

of its requirements in relation to the other pillars. And so, the greater weight of the pillar indicates that the guidelines to be followed by destinations are higher for its governance to be considered “smart.” The increase in weight of this pillar responds to the belief that tourism governance is a decisive factor in the destination being competitive, which justifies greater attention.

We will now look at how the smart destination model divides the governance pillar into four areas of action. It also provides a detailed view of the requirements that the destination must meet in each area, as well as the indicators that the destination must verify to assess the extent to which it has achieved each of them. The main principles of the fields of work and their corresponding requirements are as follows: transparency and responsibility in management; the promotion of participation, aiming to involve all those interested/affected by the performance of tourism activity in the territory; effectiveness and efficiency to ensure that destination management is based on knowledge and strategic planning that optimizes the use of resources, identifies opportunities, and minimizes negative impacts and risks.

8 Areas of Action, Requirements, and Indicators as Part of the Smart Destination Governance Pillar

The four areas of action in the governance pillar identified by the smart destination model are as follows: (1) Vision, strategic planning and implementation; (2) Efficient management; (3) Transparency and participation; and (4) Responsibility and control. For each of these, the DTI model establishes requirements to be satisfied and indicators for monitoring compliance. By grouping the requirements into areas of action, it is possible to diagnose the destination, the preparation and coherence of the action plan defined for the destination, and its subsequent implementation and monitoring. The sections below set out the four areas of action in the field of destination governance.

8.1 Area of Action 1: Strategic Vision, Planning, and Implementation

This scope was introduced to protect the feasibility of tourism activity in the destination, ensuring that the DMOs use the planning tools and have the necessary organizational, regulatory, and budgetary resources to ensure the successful design and implementation of the destination’s strategic plans. With this in mind, the requirements identified for this area aim to: first and foremost, analyze whether the necessary conditions exist in the destination for its management structure, coordination between stakeholders, commitment, and political support, etc., to implement the plans defined; and secondly, whether the destination has specific strategic and

marketing planning, with a reasonable allocation of resources, making it possible to develop products and services that make it stand out, allowing it to compete and position itself in the market accordingly.

Table 1 provides details of the requirements identified in this area, along with the indicators used to monitor their implementation.

8.2 Area of Action 2: Efficient Management

This area includes requirements for assessing the efficiency of governance, depending on whether the objectives set are achieved with the available resources (Table 2). To this end, an analysis is performed of aspects such as: the professional qualifications of those involved in the implementation of the DTI model, based on the existence of continuous training programs and internal coordination tools, both between public and private tourism stakeholders and between the different administrations.

8.3 Area of Action 3: Transparency and Participation

This area was introduced to safeguard the involvement of citizens and the sector in the tourism decision-making process, as well as coordination with other departments, agencies, and administrations. Its aim was also to ensure that this involvement occurs with due transparency. To this end, different cross-cutting actions are promoted, coordinated by the management body with other administrations and entities. To this end, the dialogue with the tourism sector and citizens is appraised as well as the existence of appropriate communication channels and the promotion of transparency and e-administration. The requirements established to this end as well as their indicators are described in Table 3.

8.4 Area of Action 4: Responsibility and Control

The aim of this area is to ensure that destinations commit to continuous improvement, offering quality experiences to both tourists and residents, asking for their opinions as well as the opinions of businesspeople. In addition to assessing the actions implemented to this end, an assessment is also performed as to whether destinations monitor and evaluate the effectiveness of their activities to promote tourism. These targets in area 4 of the governance pillar are divided into three requirements, listed in Table 4 with the corresponding indicators.

Table 1 Pillar of governance in the smart destination model: Area 1 requirements and indicators

GOVERNANCE, AREA 1: STRATEGIC VISION AND IMPLEMENTATION	
REQUIREMENT 1: RELEVANCE OF TOURISM AS PART OF ORGANIZATION	
The commitment and resources that the destination assigns to its tourism development are subject to analysis.	
INDICATORS	<p>DEGREE OF COMMITMENT OF THE LOCAL ENTITY TO TOURISM DEVELOPMENT, REFLECTED IN THE FORM OF A PUBLIC DOCUMENT (20%)</p> <p>The document is published on the local entity's website: 10%</p> <p>The document expressly mentions the involvement of all areas of the local entity: 10%</p> <p>None of the above: 0%</p> <p>EXISTENCE OF MANAGEMENT SKILLS IN THE TOURISM AREA, BEYOND TOURISM PROMOTION AND/OR MARKETING SKILLS (20%)</p> <p>Yes: 20% No: 0%</p> <p>ADOPTION OF AN ANNUAL TOURISM ACTION PLAN (60%)</p> <p>The Annual Tourism Action Plan sets out the actions for which a budget has been allocated: 30%</p> <p>The Annual Tourism Action Plan has been drawn up in consultation with the private sector and citizens: 15%</p> <p>The Annual Tourism Action Plan has expenses and investments directly linked to the smart destination project, dependent on both the Tourism Area and other Areas: 15%</p> <p>No annual tourism action plan: 0%</p>
REQUIREMENT 2: STRATEGIC PLANNING TOOLS	
An analysis is performed as to whether the destination has planned its approach to tourism development by defining clear objectives, based on a situation analysis performed in advance and having identified the actions to be performed by each stakeholder, as well as the differential tourism products to be marketed.	

(continued)

Table 1 (continued)

INDICATORS	<p>DEGREE TO WHICH TOURISM ACTIVITY HAS BEEN INTRODUCED IN THE CURRENT STRATEGIC PLAN OF THE TERRITORY (OR SIMILAR) (50%)</p> <p>Strategic plan (or similar) for the territory with specific strategic tourism line(s): 25%</p> <p>Strategic plan (or similar) for the territory with a mention of tourism in the different sections or actions: 25%</p> <p>No strategic plan (or similar) for the territory: 0%</p>
	<p>LEVEL OF DETAIL IN THE STRATEGIC TOURISM PLAN (50%)</p> <p>Annual tourism action plan and budget for its implementation: 30%</p> <p>Diagnosis of the destination and definition of strategies: 5%</p> <p>Tracking and monitoring of objectives and results: 5%</p> <p>Involvement of the private sector and citizens in its preparation: 5%</p> <p>Reference to themes in the smart destination pillars: 5%</p> <p>No strategic tourism plan: 0%</p>
REQUIREMENT 3: PROMOTION AND MARKETING PLANNING TOOLS	
<p>An analysis is performed of the existing alignment between the promotion and marketing plan and the destination's strategic plan; the capacity to implement the plan; the availability of a protocol to define and develop tourism products in line with the tourism strategy adopted</p>	

(continued)

Table 1 (continued)

INDICATORS	<p>DEGREE OF DETAIL IN THE PLANNING OF TOURISM MARKETING ACTIONS (50%)</p> <p>Definition of the strategies to be followed: 10%</p> <p>Actions related to undertakings in the five pillars: 10%</p> <p>Actions related to marketing: 10%</p> <p>Tracking and monitoring of objectives and results: 10%</p> <p>Involvement of the private sector in its preparation: 5%</p> <p>Involvement of citizens in its preparation: 5%</p> <p>No marketing plan in force: 0%</p> <hr/> <p>DEGREE OF DETAIL IN THE PLANNING OF DIGITAL TOURISM MARKETING ACTIONS (50%)</p> <p>Definition of the strategies to be followed in line with the marketing plan: 10%</p> <p>Considers actions related to undertakings in the five pillars: 10%</p> <p>Considers actions related to contextual marketing: 10%</p> <p>A social media plan is included: 10%</p> <p>Tracking and monitoring of objectives and results: 10%</p> <p>No current digital tourism marketing actions: 0%</p>
REQUIREMENT 4: CREATION OF A TOURISM PRODUCT	
A procedure defined in collaboration with the private sector and other areas of the local entity must be in place for preparing a list of products that make up the destination's tourism attractions.	
INDICATORS	<p>SUITABILITY OF THE PROCESS FOR CREATING TOURISM PRODUCTS (100%)</p> <p>A defined procedure is in place for creating a product list: 20%</p> <p>Tourism products are defined in collaboration with the private sector: 40%</p> <p>Tourism products are defined in collaboration with other areas of the local entity: 40%</p> <p>None of the above: 0%</p>

9 The Governance Pillar in Practice: Recommendations

With a view to offering an idea of the practical implications of applying the pillar in tourism destinations that aspire to be a smart destination, as defined by SEGITTUR,

Table 2 Pillar of governance in the smart destination model: Area 2 requirements and indicators

GOVERNANCE, AREA 2: EFFICIENT MANAGEMENT	
REQUIREMENT 5: TRAINING PROGRAM AT THE LOCAL ENTITY AND COMPANIES.	
The commitment and resources that the destination assigns to its tourism development are subject to analysis.	
INDICATORS	SCOPE OF THE TOURISM TRAINING PLAN IN FORCE AT THE LOCAL ENTITY (100%)
	Existence of a training plan for staff at the local entity: 50%
	Existence of a training plan for employees of tourism sector companies in the destination: 50% No tourism training plan: 0%
REQUIREMENT 6: COORDINATION STRUCTURES AT THE LOCAL ENTITY FOR THE DEVELOPMENT OF TOURISM ACTIVITY.	
An analysis is performed as to whether the destination has planned its approach to tourism development by defining clear objectives, based on a situation analysis performed in advance and having identified the actions to be performed by each stakeholder, as well as the differential tourism products to be marketed.	
INDICATORS	INTER-DEPARTMENT COMMISSION/ COMMITTEE RESPONSIBLE FOR COORDINATING THE GOVERNMENT ACTIONS OF THE LOCAL ENTITY OR AN INTER-DEPARTMENT TOURISM COMMISSION/ COMMITTEE TAKING ALL AREAS INTO CONSIDERATION (50%)
	In place, with a schedule of regular meetings: 25% In place, with no schedule of meetings: 25% Not in place: 0%
	SUITABILITY OF THE COORDINATION AND SERVICES OF THE SMART DESTINATION (50%)
	A Smart Office is in place to coordinate and manage the development of the smart destination: 25% A person is responsible for coordinating and managing the development of the smart destination: 25% No person responsible for the coordination and management of the development of the smart destination: 0%.

this section sets out, by area of action (Tables 5–8), some of the most common recommendations made to destinations after the diagnosis phase, closing cycle 2 of the DTI model as described in Sect. 5.3 of chapter “Methodological Framework of the Spanish Smart Tourism Destinations Model.” The governance pillar contains “standard” recommendations for requirements with zero compliance, some of which are reflected in the following sections.

Table 3 Pillar of governance in the smart destination model: Area 3 requirements and indicators

GOVERNANCE, AREA 3: TRANSPARENCY AND PARTICPATION

REQUIREMENT 7: PUBLIC-PRIVATE AND PUBLIC-PUBLIC COLLABORATION
STRUCTURES

The participation of the tourism area or the local entity in coordination structures and joint actions with the public authority is analyzed both nationally and internationally as well as with the private sector.

(continued)

Table 3 (continued)

INDICATORS	<p>LEVEL OF PARTICIPATION OF THE LOCAL ENTITY IN FORUMS/COMMITTEES/ NETWORKS WITH THE PUBLIC AUTHORITIES ACROSS THE FOUR LEVELS (PROVINCIAL, REGIONAL, STATE, INTERNATIONAL) (50%).</p>
	<p>The Local Entity participates and is a permanent member in forums/committees/networks with public authorities across the 4 levels (provincial, regional, state, international): 50%</p> <p>The Local Entity participates and is a permanent member in tables/committees/networks with public authorities at 3 levels (provincial, regional, state, international): 35%</p> <p>The Local Entity participates and is a permanent member in forums/committees/networks public authorities at 2 levels (provincial, regional, state, international): 20%</p> <p>The Local Entity participates and is a permanent member in forums/committees/networks with public authorities in at least 1 level (provincial, regional, state, international): 5%</p> <p>The Local Entity does not directly participate in forums (or similar) with other public authorities: 0%.</p>
	<p>LEVEL OF PARTICIPATION OF THE PRIVATE SECTOR AND CITIZENS IN THE DEVELOPMENT OF LOCAL TOURISM POLICY (50%).</p>
	<p>The destination has a body (Municipal Council, Tourism Board, or similar) in which citizens participate in tourism policies on an advisory basis: 15%</p> <p>The destination has a body (Municipal Council, Tourism Board, or similar) in which the private sector participates in tourism policies on an advisory basis: 15%</p> <p>The body (Municipal Council, Tourism Board or similar) in which citizens and the private sector participate in tourism policies meets at least twice a year: 10%</p> <p>The destination develops at least three public-private collaboration initiatives that involve the contribution of private funds (fam trips, press trips, fairs, etc.): 10%</p> <p>None of the above: 0%</p>
<p>REQUIREMENT 8: COMMUNICATION CHANNELS IN PLACE WITH VISITORS, RESIDENTS, AND THE SECTOR</p>	<p>An analysis is performed of the scope and accuracy of the different communication channels in the destination with the visitor or resident (from social media to brochures, MUPIs, or websites), including tourist offices.</p>

(continued)

Table 3 (continued)

INDICATORS	SUITABILITY OF COMMUNICATION CHANNELS WITH RESIDENTS (35%)
	There is an online forum for promoting knowledge and involvement in local tourism management with the main associations: 10% A regulatory newsletter is sent out: 5% Services at the tourist office or tourist information points with guidance for residents: 15% Regular meetings are held: 5% None of the above: 0%
	SUITABILITY OF COMMUNICATION CHANNELS WITH VISITORS (35%)
	Updated social media, in the languages of the main markets: 5% Updated regular communications are sent, in the languages of the main markets: 5% Real-time communication channels (WhatsApp, online chat function, etc.): 10% In-person service at the office or tourist information points in the languages of the main markets: 15% None of the above: 0%
INDICATORS	SUITABILITY OF COMMUNICATION CHANNELS WITH THE TOURISM SECTOR (30%)
	There is an online forum for promoting knowledge and involvement in local tourism management: 20% A regulatory newsletter is sent out: 5% Regular meetings are held: 5% None of the above: 0%
REQUIREMENT 9: PROMOTION OF TRANSPARENCY AND E-ADMINISTRATION	
An analysis is performed of: the publication of annual actions in the Tourism area in all areas of work (management, participation, promotion) with a view to promoting transparency and communication; the degree of implementation of the electronic office and its use in the sector.	

(continued)

Table 3 (continued)

INDICATORS	ONLINE PUBLICATION OF THE ANNUAL ACTIVITIES OF THE TOURISM AREA (10%)
	Online publication of the management activities of the Tourism Area: 5%
	Online publication of the promotional activities of the Tourism Area: 5%
	None of the above: 0%
	DEGREE OF IMPLEMENTATION OF THE ELECTRONIC OFFICE (40%)
	Between 76% and 100% of procedures are available on the Electronic Office: 40%
	Between 51% and 75% of the procedures are available on the Electronic Office: 30%
Between 26% and 50% of the procedures are available on the Electronic Office: 20%	
Between 1% and 25% of the procedures are available on the Electronic Office: 10%	
There is no Electronic Office or it is not operational: 0%	
DEGREE OF USE OF THE ELECTRONIC OFFICE BY THE TOURISM SECTOR (40%)	
Between 76% and 100% of tourism companies in the destination use the Electronic Office: 40%	
Between 51% and 75% of tourism companies in the destination use the Electronic Office: 30%	
Between 26% and 50% of tourism companies in the destination use the Electronic Office: 20%	
Between 1% and 25% of tourism companies in the destination use the Electronic Office: 10%	
The tourism sector does not use the Electronic Office: 0%	
EXISTENCE OF A CITIZEN FOLDER (5%)	
Yes: 5%	
No: 0%	
STRATEGIES, PLANS, OR PROTOCOLS FOR UPDATING THE TRANSPARENCY PORTAL (5%)	
Yes: 5%	
No: 0%	

Table 4 Pillar of governance in the smart destination model: Area 4 requirements and indicators

GOVERNANCE, AREA 4: RESPONSIBILITY AND CONTROL	
REQUIREMENT 10: TOURISM QUALITY	
The efforts made by the destination to promote, consolidate, and disseminate tourism quality is subject to analysis.	
INDICATORS	ACTIONS/PROGRAMS FOR PROMOTING TOURISM QUALITY (100%)
	Implementation of SICTED in the destination: 40% Promotional actions for the implementation of other quality certifications (Q for tourism quality certificate, Biosphere, etc.): 30% Development of other actions to promote quality such as training, education, workshops, financing facilities, etc.: 30% No actions or programs for promoting tourism quality: 0%
REQUIREMENT 11: MONITORING OF ACTIONS TO PROMOTE TOURISM	
The impact and return of promotional actions or the promotion of tourism activity performed in the destination are monitored and measured.	
INDICATORS	ANALYSIS OF THE IMPACT AND RETURN ON ACTIONS FOR PROMOTING TOURISM (100%)
	7 or more actions monitored each year: 100% Between 5 and 6 actions monitored each year: 75% Between 3 and 4 actions monitored each year: 50% 1 or 2 actions monitored each year: 25% No action: 0%
REQUIREMENT 12: DATA CENTER/STANDARDIZED PROCESS TO MONITOR AND MEASURING TOURISM ACTIVITY	
An assessment is performed in relation to the existence of a data center or ongoing measurement process for tourism activity and its scope.	

(continued)

Table 4 (continued)

INDICATORS	PERIODIC MEASUREMENT OF TOURISM ACTIVITY (60%)
	Monitoring of the main indicators of tourism demand (place of origin, average stay, type of accommodation, means of transport, way in which the transport was arranged, reason, patterns of movement and/or spending, etc.): 15% Monitoring to quantify and characterize the products and services (types of establishments and services, spaces, categories, etc.): 15% Monitoring of the most visited tourism resources: 15% Monitoring of the economic contribution of tourism to the territory (economic impact and impact on employment: 15% No process for measuring tourism activity: 0%
	AVAILABILITY OF SURVEYS, PROCEDURES FOR OBTAINING THE OPINIONS OF RESIDENTS AND BUSINESSPEOPLE IN RELATION TO TOURISM AND TOURIST SATISFACTION AT LEAST EVERY TWO YEARS (30%)
	Surveys, active listening systems or other digital means are in place to ascertain the opinion of residents, at least once every 2 years: 10% Surveys, active listening systems or other digital means are in place to ascertain the opinion of businesspeople, at least once every 2 years: 10% Surveys, active listening systems or other digital means are in place to ascertain the opinion of tourists, at least once every 2 years: 10% No surveys, active listening systems or other digital means are in place to ascertain the opinion of residents and businesspeople in relation to tourism and tourist satisfaction: 0%
	A PROCEDURE IS IN PLACE TO COMMUNICATE DATA AND ANALYSES IN RELATION TO TOURISM ACTIVITY TO THE TOURISM SECTOR AND CITIZENS (10%)
	Yes: 10% No: 0%

9.1 Main Recommendations, Area 1

Table 5

9.2 Main Recommendations, Area 2

Table 6

9.3 Main Recommendations, Area 3

Table 7

Table 5 Examples of recommendations for improving the governance of the destination in area 1

AREA 1: STRATEGIC VISION, PLANNING, AND IMPLEMENTATION

REQ. 1: RELEVANCE OF TOURISM AS PART OF ORGANIZATION

Preparation of a document of commitment to the tourism development of the destination.

Implementation of a project for the transformation into a Smart Destination or, in general, projects related to tourism requires a clear institutional impulse, involving all the affected stakeholders. To this end, the Local Entity’s commitment to the tourism development of the destination must be reflected in a framework document that defines the long-term tourism development objectives of the territory, establishing the basis for the strategy as part of which the smart destination pillars serve as the drivers of this development: governance, innovation, technology, sustainability, and accessibility.

The tourism policy of the destination to be defined must: (1) adapt to the specific features and idiosyncrasies of the territory; (2) align with the development strategy that the Local Entity has in place for the town/city as a whole; (3) coordinate with all areas of the organization in relation to its development, given the cross-cutting nature of tourism activity; (4) be agreed upon insofar as possible, since the continuity of the tourism policy document in the medium and long term will depend on support being received from the private sector, civil society, and even political opposition at the corporation; (5) be reflected in a written document, which serves to guide all stakeholders involved and to ensure that citizens are aware of both the objectives pursued and the instruments used to achieve them; (6) be published and publicized, made available to all businesspeople, citizens, and visitors.

REQ. 1: RELEVANCE OF TOURISM AS PART OF ORGANIZATION

Tourism management entity with powers in destination management.

The tourism management entity in the destination must have the capacity to lead the processes required for the implementation of the new tourism model, coordinating the actions of all the areas of the Local Entity and channeling the involvement of private agents and citizens. With this in mind, the Management Entity represents a powerful, agile, and efficient tool for getting the private sector and citizens involved in decisions and tourism development, seeking their joint responsibility and promoting the tourism policy rolled out in the destination. To achieve these goals, the new work areas arising as a result of the implementation of the DTI model must be identified: marketing, communication, products, management of the smart destination, etc. For each of these, the necessary human resources must be identified, along with their profiles. Having achieved all of this, the Local Entity must study whether the best formula for achieving the objectives as a destination involves having a Tourism Area in place or whether a management entity with another legal nature needs to be created. As part of this analysis, consulting the “Local Tourism Management Models” manual prepared by the Spanish Federation of Municipalities and Provinces (FEMP, 2008) may be useful.

REQ. 3: PROMOTION AND MARKETING PLANNING TOOLS

(continued)

Table 5 (continued)**Preparation of a marketing plan**

Developing a tourism marketing plan is recommended, based on the tourism strategy of the destination, outlining the lines of development for the purposes of marketing and promotion. The tourism marketing plan must include the definition of objectives, the strategies, and actions for achieving them in terms of product, markets, segments, brand, marketing and promotion, the corresponding timelines, as well as the supports to be used (brochures, online marketing platforms, etc.) and the budget allocated and person responsible for each action. All the activities are defined together with their corresponding accomplishment indicators, making sure that monitoring them is possible, allowing the introduction of corrective actions if needed.

At the same time, the synergies of belonging to product networks and clubs for promotional purposes should be harnessed.

Promoting and publicizing the actions carried out in each of the smart destination pillars with a direct influence on tourism must be one of the objectives of the Marketing Plan. Progress and best practices in relation to governance, innovation, technology, sustainability, and/or accessibility can be key aspects when it comes to promotion.

Furthermore, the marketing plan must include a brand strategy for improving its definition and positioning, with a Brand Identity Manual and a guide for using the logo.

As in the case of the Local Entity's other plans, the Marketing Plan must be prepared in coordination with the private sector and civil society with a view to ensuring all stakeholders are aligned and coordinated, in addition to taking into consideration the work by other higher-ranking administrations to achieve synergies and greater effectiveness.

All this work in marketing and reinforcing the tourism brand must be linked to the destination's communication plan and establish common lines of communication, with coherent graphic elements and shared labels/hashtags, not only when it comes to tourism, but across all areas. The branding strategy will form an integrated part of the promotion and communication tools, product structuring and segmentation. To this end, all communication measures must take this into account and vice versa.

REQ. 3: PROMOTION AND MARKETING PLANNING TOOLS**Planning actions in relation to digital tourism marketing**

Defining a plan for digital tourism marketing actions or the preparation of a plan is recommended, based on the destination's tourism strategy and the general marketing plan, outlining the lines of development for the purposes of online promotion.

As in the case of the marketing plan, it must include the definition of objectives, the strategies, and actions for achieving them in terms of product, markets, segments, brand, marketing and promotion, the corresponding timelines, as well as the supports to be used and the budget allocated and person responsible for each action.

All this using the measurement indicators that make it possible to ascertain the degree of implementation, their monitoring and control, applying the necessary corrections, as well as the impact of actions and campaigns.

The destination must analyze the type of action it considers of interest for the purpose of its objectives, from email marketing campaigns, contextual marketing actions that make it possible to customize promotion actions, planning the management approach to social media incorporating appropriate profiles (community manager), SEO-SEM strategies, etc. In the same line of the marketing plan, the destination must report on all the actions performed within the framework of the smart destination pillars with a direct influence on tourism.

REQ. 4: CREATION OF A TOURISM PRODUCT

(continued)

Table 5 (continued)

Preparation of a procedure for the coordinated creation of tourism products.

Defining and preparing a procedure for the creation and development of tourism products is recommended, which makes it possible for the destination to have a detailed catalogue of the destination’s attractions with a view to establishing the appropriate marketing and promotion policies. Consideration will be given to the fact that the design and development of tourism products must be consistent with the strategic planning established in the corresponding strategic plans (diversification, specialization, positioning, target segments, etc.). It is also necessary for the preparation of tourism products to be achieved with the consensus of the private sector and citizens, in such a way that their support is secured when it comes to their configuration and implementation. As part of this process, the remaining areas of the Local Entity, other than Tourism, play an important role, since the configuration of the products will often require their participation.

Drawing up an inventory of the destination’s resources and its current products and services is recommended, as this will facilitate the design of new products that harness the resources and complement the products and services currently on offer in the destination.

It is also important to analyze the different levels of competition in the destination and define a solid, coherent, and differentiated product catalogue. This catalogue must offer products that are linked to the target audiences to which they will be supplied. This will help focus the promotional and marketing efforts to be made under the marketing plan.

Reinforcing the positioning of the products on the destination’s tourism website and by other means is recommended, such as the publication of brochures aligned with the vision of the destination included in its strategic plan.

The UNWTO Tourism Product Development Manual (2013) can be used as a reference document for destinations when developing their tourism attractions, as it reviews the key factors and basic processes to be followed when it comes to properly structuring a tourism product.

9.4 Main Recommendations, Area 4

Table 8

10 Lessons Learned in the Field of Innovation in Smart Tourism Destinations: Challenges

To bring this chapter dedicated to the governance pillar to a close, after one decade with the DTI model by SEGITTUR in place, based on the accumulated experience following its implementation, here we reflect on the main practical aspects of destination governance that currently reflect important issues that need to be resolved or improved, and subsequently, we anticipate a number of the strategic challenges that will arise for tourism in Spain in the years to come.

As part of the diagnoses performed for destinations in the DTI network, check chapter “The Spanish Smart Tourism Destination Network: A Nudge to Boost the Adoption of National Tourism Policies” for further information, the biggest defies in implementing the governance requirements are affected by two aspects: the

Table 6 Examples of recommendations for improving the governance of the destination in area 2

AREA 2: EFFICIENT MANAGEMENT

REQ. 5: TRAINING PROGRAM AT THE LOCAL ENTITY AND COMPANIES

Preparation of a tourism training plan

The new tourism management model proposed for the Local Entity from the smart destination perspective requires a training policy that responds to the needs for embarking upon the transformation process. To this end, an analysis of profiles and new requirements and the preparation of a yearly or 2-yearly training plan approved by workers and the sector to update the knowledge of staff and in response to the new reality is critical.

Training must be aimed at reinforcing knowledge of tourism, although this is not its exclusive goal, since the cross-cutting nature of tourism and the smart destination model mean this is necessary at all levels and in all areas of the Local Entity. The areas must understand the impact that their management has on tourism activity and vice versa.

The Plan must also cover the employees of tourism sector companies in the destination, as they are an essential part of the value chain. To this end, the Local Entity must contribute to improving quality by analyzing the training required to develop the new strategy.

REQ. 6: COORDINATION STRUCTURES AT THE LOCAL ENTITY FOR THE DEVELOPMENT OF TOURISM ACTIVITY.

Creation of a smart destination committee/interdepartmental commission

The development of a territory in terms of tourism requires cross-cutting actions; therefore, coordination between the different areas of the Local Entity is essential. To this end, an Interdepartmental Committee/Commission must be created or, given the cross-cutting nature of the Smart Destination concept, a smart destination committee at the highest level within the Local Entity with representatives from the different departments.

The objective is twofold: first of all, sharing the projects/actions activated at the entity, regardless of the area that promotes them, analyzing and coordinating their interaction with the remaining departments taking into account the smart destination conversion strategy that the town/city has launched, in other words, making these projects and actions coincide with the pillars of governance, innovation, technology, sustainability, and accessibility.

Secondly, it must serve as a space for detecting needs, problems, or new services to which a response is provided in a common and consensual way.

The mayor's office should lead and preside over this coordination body, with support from the Tourism Area, as the latter will already be working on actions structured around transversality. Details will be provided of a work procedure for the committee/commission, which may be responsible for organizing the necessary work groups by subject, setting out a schedule of periodic meetings.

REQ. 6: COORDINATION STRUCTURES AT THE LOCAL ENTITY FOR THE DEVELOPMENT OF TOURISM ACTIVITY.

Creation of an interdepartmental commission/committee in which all areas are represented, in addition to tourism.

This commission will organize the government actions of the Local Entity to coordinate and promote the smart destination transformation with support and collaboration from areas other than the tourism area. As a result, the tourism area promotes the transformation of other municipal or territorial areas of work, streamlining efforts as part of a roadmap in which a large part of the success will depend on the involvement of other areas in the smart destination process. The work performed by this commission is structured around the influence capacity that tourism activity has on other activities that are not inherent tourism activities. With this in mind, the commission will promote "transversal" governance in the public-public part that goes beyond what is exclusively tourism based.

(continued)

Table 6 (continued)

REQ. 6: COORDINATION STRUCTURES AT THE LOCAL ENTITY FOR THE DEVELOPMENT OF TOURISM ACTIVITY.

Launch of a Smart Office

Progress with the smart destination conversion process will see an increase in functions and tasks performed by the person or team managing the project; given the need for new services and skills, gradually converting this into a Smart Office is recommended.

This Smart Office must respond and provide support in terms of both material and knowledge to all actions resulting from the development of the smart destination, as well as acting as a coordinator. To this end, it must accommodate the means of data collection and serve as the reference body that brings together and relays all work to other management units involved. Making progress toward the Smart Office will involve the implementation of a smart destination management technology platform that incorporates all the relevant data for the purposes of destination management and tourism intelligence data, drawing on various sources, linked to recommendations issued as part of the other pillars of the model.

The functions of the Smart Office may include: coordination, implementation, and monitoring of the smart destination project; data integration, analysis, and publication of reports based on tourism intelligence; integration of relevant territory data in addition to tourist data; handling participation in the Smart Destinations Network (Red DTI, fully addressed in next chapter “The Spanish Smart Tourism Destination Network: A Nudge to Boost the Adoption of National Tourism Policies”); coordination of the actions performed by the different areas; development of technological surveillance functions and management of systematic innovation; pursuit of financing and promotion of participation in national and European projects or support services for tourism businesses.

reluctance and practical obstacles in relation to coordination within the organization itself and the limited resources (human and financial) available.

In terms of coordination, the real difficulty experienced by destinations in promoting participatory governance was detected, achieving strong communication between the different stakeholders (tourists, residents, private sector and public sector across all levels). It is often the case that within the managing organization of the destination, there are tourism departments or areas that are particularly isolated from the rest, without seeing any need for this to change, with tourism development considered as an activity focused on promotion, unrelated to the other services offered in the destination. With this in mind, the poor understanding of the entire system that is inherent to and that underlies a competitive tourism destination is to blame for this simplistic vision focusing on a single aspect of destination marketing: communication and promotion, putting aside the development of products and the strategy of commercialization/marketing, and what is most important: how the tourism experience is reliant on the quality of the tourism attraction as well as the reception capacity of the destination and the other non-tourism services that facilitate this. This fact is an important barrier in achieving efficient governance, which improves the competitiveness of the destination, as the actions that must be performed in terms of tourism governance are usually transversal (definition of a strategy, design actions, and diversification of the tourism attractions in the destination, training, identification of target markets, management of the carrying capacity, health and safety, waste management and noise and environmental pollution, etc.) and, by nature, these require consensus and transversal cooperation between all the

Table 7 Examples of recommendations for improving the governance of the destination in area 3

AREA 3: TRANSPARENCY AND PARTICIPATION

REQ. 7: PUBLIC–PRIVATE AND PUBLIC–PUBLIC COLLABORATION STRUCTURES.

Incorporation of the destination in forums/committees/networks with other public authorities

Studying the inclusion of the destination in forums/committees/networks with public authorities at different levels (provincial/regional/state/international) is recommended with a view to contributing to the exchange of knowledge, the generation of synergies, the implementation of joint projects, internationalization, the promotion of innovation, reinforcement of the brand image and tourism products and services in the town/city, in addition to other purposes.

An analysis and evaluation must be performed of the different options, taking into consideration the strategy of the destination, and dedicating the necessary resources to encourage participation.

The Plan must also cover the employees of tourism sector companies in the destination, as they are an essential part of the value chain. To this end, the Local Entity must contribute to improving quality by analyzing the training required to develop the new strategy.

REQ. 7: .PUBLIC–PRIVATE AND PUBLIC–PUBLIC COLLABORATION STRUCTURES.

Creation of a tourism board/council

To ensure the proper development of the town/city as a tourism destination and for its tourism management to be structure around the premises of the smart destination model and its five pillars of action, it will be essential to put a participatory body in place to bring together the main public and private stakeholders from the tourism sector of the destination, in such a way that all interests and perspectives are represented.

To this end, the creation and promotion of a tourism board/council or similar is recommended, with representatives from all departments and areas of the City Council required for the management of the destination as a smart destination, given the transversality for which the model is known, as well as representatives from the private sector and citizens. This must serve as an instrument for agreement, allowing for the coordination of an effective public–private collaboration in the town/city when it comes to matters of tourism, taking all perspectives into account when determining the corresponding policy and the actions to be performed.

The tourism board must be a participatory body and its functions must be defined in a regulation, with a schedule of periodic meetings (at least two per year), which is also entrusted with offering advice and channeling information both ways, between the public and private sectors and civil society.

As part of this participatory body, reinforcing and strengthening the joint responsibility of the private sector in terms of public tourism development initiatives is proposed, not only when it comes to decision-making, but also with its direct participation in the form of funds contributed to facilitate their implementation. This contribution can be in kind, such as making hotel rooms available for fam or press trips, or directly economic, for example, for participation in fairs.

REQ. 8: COMMUNICATION CHANNELS IN PLACE WITH VISITORS, RESIDENTS, AND THE SECTOR.

(continued)

Table 7 (continued)**Reinforcement of communication with citizens**

Transparency requirements mean it is necessary for suitable communication channels to be in place both to inform about government action and to encourage the involvement of residents in public policies. Tourism management in the new governance models includes citizens as one of the stakeholders to be taken into consideration when planning and implementing actions in the field of tourism.

With this in mind, identifying the main associations representing citizen groups in order to create the tools that facilitate and promote this two-way communication is recommended, including but not limited to: an online forum with the main associations, which may also be open to the public, a periodic newsletter providing information on tourism-related actions, highlighting the benefits for residents, directing and adapting the services of the tourist office and the tourist information points to residents as well as visitors, agreeing on a schedule of periodic meetings to address tourism issues or those associated with tourism activity in the territory.

All this also serves as a way of raising awareness and relaying the benefits of tourism through information and permanent communication.

REQ. 8: COMMUNICATION CHANNELS IN PLACE WITH VISITORS, RESIDENTS, AND THE SECTOR.

Strengthening communication with visitors

Reviewing and optimizing communication channels with visitors is recommended in order to transfer all updated information, employing the new technological tools that allow this to be done in real time, as well as having two-way communication in place to adapt products and services responding to the needs or problems detected.

Creating tools that facilitate and encourage this communication is recommended, including but not limited to social media appropriate to the market segments in the destination; sending periodic communications with news and updates; activation of communication channels in real time (e.g., WhatsApp, online chat function, etc.); and face-to-face assistance at the tourist office and information points. All of this must be undertaken in line with an established update procedure, with planning that, in line with the destination strategy, and in coordination with the other communication channels used by the Local Entity, to ensure consistency in the messages sent.

REQ. 8: COMMUNICATION CHANNELS IN PLACE WITH VISITORS, RESIDENTS, AND THE SECTOR.

Strengthening communication with the private sector

Transparency requirements mean it is necessary for suitable communication channels to be in place both to inform about government action and to encourage the involvement of the private sector in public policies.

Tourism management in the new governance models includes private sector stakeholders in relation to planning and implementing tourist actions. With this in mind, identifying the main associations representing employers in order to create the tools that facilitate and promote this two-way communication is recommended, including but not limited to: an online forum with the main associations, which may also be open to individual businesspeople; a periodic newsletter providing information about actions related to tourism; and agreeing on a schedule of periodic meetings to discuss tourism issues or those resulting from tourism activity in the territory.

REQ. 9: PROMOTION OF TRANSPARENCY AND E-ADMINISTRATION.

(continued)

Table 7 (continued)**Publication of tourism actions**

The permanent communication of activities by the Tourism Area, beyond those related strictly to promotion, must be one of the priorities for relaying the benefits of tourism in the territory to society. This, combined with the activation of channels for citizen and business participation, will contribute to raising awareness of the importance of tourism while ensuring compliance with transparency obligations. With this in mind, periodically publishing the actions performed by the Tourism Area in the destination, the degree of compliance with objectives and results, establishing measurement indicators to this end is recommended. The aim of the above is to ensure accountability, thus contributing to relaying values and tourism policy to residents and visitors. This accountability must be coordinated with the communication strategy employed by the Local Entity.

Additionally, work in relation to the DTI project as a process of continuous improvement, oriented toward new governance, for fostering innovation and enhancing the sustainability and tourism quality of services is a value that must be relayed to the public.

managers of the different areas of the destination with an influence on tourism activity. Bearing these circumstances in mind, strengthening the political commitment to encouraging capable leadership, fomenting synergies, fostering coordination and cooperation, both public–private and public–public, is a priority for destinations. As a result of this commitment, it will be more feasible to reinforce the available tourism policy instruments, such as planning, budgets, etc., aimed at offering the necessary conditions for the sustainable and competitive development of the tourism sector in the destination.

Another critical aspect is human resources, since shortcomings have been identified in the destinations not only in terms of their qualification and training when it comes to handling changes in the organization that implies the adoption of the DTI model; furthermore, a clear imbalance has been observed between the weight of tourism activity in the destination and the staff assigned to its public management, which in many cases has been deemed insufficient. In this sense, one of the challenges to be addressed in the coming years will consist of identifying professional profiles associated with the tasks inherent to the smart management of tourism destinations and encouraging DMOs having the necessary resources to attract and/or train these profiles.

Finally, tourism destinations always face the same challenge, which is just as relevant as the two indicated above: structuring their tourism attractions, ensuring they are consistent with the strategic objectives of the destination and ensuring it genuinely stands out on the market based on the identity of the destination. To this end, knowledge management, innovation and tool development, including but not limited to tourism information systems, and harnessing the available technologies represent priority activities that must be addressed in the years to come. These tools facilitate the development of tourism attractions that consist of a portfolio of coherent tourism products and services, adapted to the target audience that the destination aims to appeal, as well as being sufficiently diversified, generating an extensive and in-depth portfolio of tourism services, capable of retaining and extending averages stay and tourists spending in the destination.

Table 8 Examples of recommendations for improving the governance of the destination in area 4

 AREA 4: RESPONSIBILITY AND CONTROL

 REQ. 10: TOURISM QUALITY

Preparation of a plan/program of actions for promoting tourism quality.

The destination image must go hand in hand with the image of quality; therefore, making progress with the implementation of certifications, including but not limited to the SICTED program or the “Q” for Tourism Quality Certificate is a key aspect when it comes to competitive and sustainable development.

With this in mind, implementing a plan/program of actions for promoting tourism quality in agreement with the sector is recommended, as part of which, in addition to promoting certifications, other actions such as training, workshops, or financing facilities are foreseen. In short, the Local Entity must lead the way to quality, promoting this factor in its own resources and services as well as including all stakeholders that participate in the tourism value chain. The Plan must include communication actions for the objectives achieved in terms of quality to enhance the visibility of public and private efforts and to ensure that residents and visitors are aware of the efforts being made in this area and the benefits they bring.

 REQ. 11: MONITORING OF ACTIONS TO PROMOTE TOURISM.

Monitoring of promotion actions

The transparency and efficiency obligations in relation to the management of public administrations involve the need to monitor and guarantee that the actions undertaken respond to the objectives set. With this in mind, analyzing the impact and return of actions to promote tourism is recommended, ranging from organizing an advertising campaign in the media to participating in the organization of events such as road races, concerts, etc.

To this end, clear objectives and measurement indicators must have been previously defined that, with the final results, allow future decisions to be made on the suitability of the actions and make the necessary changes and corrections to optimize the investment and the resources used to the utmost.

 REQ. 12: DATA CENTER/STANDARIZED PROCESS TO MONITOR AND MEASURING TOURISM ACTIVITY.

Assessment of tourist satisfaction, the opinion of businesspeople and residents in relation to tourism.

Performing a periodic assessment of tourist satisfaction is recommended, as well as ascertaining the opinion of residents and businesspeople and business confidence in tourism, through surveys and analyzing other sources (social media, websites, etc.) at least once every 2 years. This will help to generate indicators that can be used for developing tourism policy and decision-making.

 REQ. 12: DATA CENTER/STANDARDIZED PROCESS TO MONITOR AND MEASURING TOURISM ACTIVITY.

(continued)

Table 8 (continued)

Preparation of a procedure for communicating the data and analysis linked to tourism activity.

Reviewing and optimizing communication channels with visitors is recommended in order to transfer all updated information, employing the new technological tools that allow this to be done in real time, as well as having two-way communication in place to adapt products and services responding to the needs or problems detected.

Creating tools that facilitate and encourage this communication is recommended, including but not limited to: social media appropriate to the market segments in the destination; sending periodic communications with news and updates; activation of communication channels in real time (e.g., WhatsApp, online chat function, etc.); and face-to-face assistance at the tourist office and information points. All of this must be undertaken in line with an established update procedure, with planning that, in line with the destination strategy, and in coordination with the other communication channels used by the Local Entity, to ensure consistency in the messages sent.

REQ. 12: DATA CENTER/STANDARDIZED PROCESS TO MONITOR AND MEASURING TOURISM ACTIVITY.

(continued)

Table 8 (continued)**Creation of a Data Center/periodic measurement of tourism activity.**

The destination must focus part of its efforts on developing a tourism data center or process for measuring tourism activity that makes it possible to extract data and undertake a broad analysis from both a public and private perspective, which will also enhance the reaction capacity and adaptation to new situations; this could then be integrated into the future Smart Office.

This extraction of information and analysis must be reflected in dashboards, to facilitate their understanding and use, which, combined with situation reports, must be used as tools at the service of the sector.

Structuring the extraction of information, systematizing it, and defining the update frequencies, as well as analysis and deliverables, are recommended.

This would serve as a first step in the subsequent application of analysis and new statistical sources that would result in a more complex and comprehensive Tourism Intelligence System (TIS) as proposed in the technology pillar. The TIS is a core tool in ensuring the appropriate management of all statistical information and the optimal use of data.

One of the keys in managing the crisis triggered by the COVID-19 pandemic was information. Transparent and correctly relayed information can serve as one of the main elements for generating security among future visitors.

The first step is to define the data to be collected, the sources and possible collaboration options throughout this process. Thus, starting from minimum information, which may be:

Main indicators of tourism demand (number of tourists per year and monthly breakdowns; overnight stays; tourism source markets, type of accommodation, average stays, means of transport, way in which the transport was arranged, travel motivation/purpose of a tourism trip, mobility patterns, tourism expenditure; etc.)

Monitoring to qualify and quantify the tourism product and service supply: type of establishments, categories, spaces, services, occupancy rates and overnight stays, average daily rates, etc.

Assessment of tourist satisfaction.

Monitoring the economic impact of tourism and its contribution to the local economy: employment, opening and closing of establishments, commercial activity, tourism receipts, etc.

Monitoring of the preservation of most popular resources, carrying capacity.

The promotion of tools for participation and agreement with the business community should contribute to this entire process; this tool encourages communication and collaboration between the public and private sectors and channels information in both directions.

Forms and questionnaires should be prepared for the monthly data collection, at the different types of establishments, to monitor the occupancy rate, the nationality of tourists, degree of loyalty to the destination, booking details, opening and closing dates, etc.

Appendix

Eduardo Parra López, Ph.D., Experienced Associate Professor with a demonstrated history of working in the higher education industry. Skilled in Web 2.0, Marketing Strategy, Tourism Management, Tourism, and Social Media. Strong operations professional with a Doctor focused in Business Studies and Tourism from Universidad de La Laguna.

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References

- Beaumont, N., & Dredge, D. (2010). Local tourism governance: A comparison of three network approaches. *Journal of Sustainable Tourism*, 18(1), 7–28. <https://doi.org/10.1080/09669580903215139>
- Berne, C., García-González, M., & Múgica, J. (2012). How ICT shifts the power balance of tourism distribution channels. *Tourism Management*, 33(1), 205–214. <https://doi.org/10.1016/j.tourman.2011.02.004>
- Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism*, 19(4–5), 411–421. <https://doi.org/10.1080/09669582.2011.580586>
- Consejo de Ministros, Gobierno de España. (2007). Plan de Turismo Español Horizonte 2020. Available at: <https://www.tourspain.es/es-es/Conozcanos/Documents/HistoricoPoliticaTuristica/Horizonte%202020%20-%20Plan%20Turismo%20Español%200812.pdf>
- Crouch, G. I. (2011). Destination Competitiveness: An analysis of determinant attributes. *Journal of Travel Research*, 50(1), 27–45. <https://doi.org/10.1177/0047287510362776>
- De Zoysa, M. (2022). Forest-based ecotourism in Sri Lanka: A review on state of governance, livelihoods, and forest conservation outcomes. *Journal of Sustainable Forestry*, 41(3–5), 413–439. <https://doi.org/10.1080/10549811.2021.1943450>
- Dredge, D., & Jamal, T. (2013). Mobilities on the Gold Coast, Australia: Implications for destination governance and sustainable tourism. *Journal of Sustainable Tourism*, 21(4), 557–579. <https://doi.org/10.1080/09669582.2013.776064>
- Elliot, S., Papadopoulos, N., & Kim, S. S. (2011). An integrative model of place image: Exploring relationships between destination, product, and country image. *Journal of Travel Research*, 50(5), 520–534. <https://doi.org/10.1177/0047287510379161>
- European Commission. (2001). The European Governance: A White Paper. Available at: https://ec.europa.eu/commission/presscorner/detail/en/DOC_01_10
- FEMP. (2008). Modelos de gestión turística local. Principios y Prácticas. Available at: <http://femp.femp.es/files/566-679-archivo/Manual%20Modelos%20de%20Gestion%20I.pdf>
- Hall, M. C. (2011). A typology of governance and its implications for tourism policy analysis. *Journal of Sustainable Tourism*, 19(4–5), 437–457. <https://doi.org/10.1080/09669582.2011.570346>

- Joppe, M. (2018). Tourism policy and governance: Quo vadis? *Tourism Management Perspectives*, 25, 201–204. <https://doi.org/10.1016/j.tmp.2017.11.011>
- Matteucci, X., Nawijn, J., & von Zumbusch, J. (2022). A new materialist governance paradigm for tourism destinations. *Journal of Sustainable Tourism*, 30(1), 169–184. <https://doi.org/10.1080/09669582.2021.1924180>
- Moscardo, G. (2014). Exploring social representations of tourism planning: Issues for governance. In B. Bramwell & B. Lane (Eds.), *Tourism governance: Critical perspectives on governance and sustainability* (pp. 13–25). Routledge.
- OECD. (2017, October). Fostering a whole-of-government approach in tourism. Issues Paper. OECD. From: <https://www.oecd.org/cfe/tourism/Tourism-meeting-Issues-Paper-on-Fostering-a-Whole-of-Government-Approach-in-Tourism.pdf>
- ONU. (2015). Objetivos de Desarrollo Sostenible. Agenda 2030. Available at: https://unctad.org/system/files/official-document/ares70d1_es.pdf
- ONU. (2022). Acerca de la buena gobernanza y los derechos humanos. Available at: <https://www.ohchr.org/es/good-governance/about-good-governance>
- Ritchie, J. R. B., & Crouch, G. I. (2003). *The competitive destination: A sustainable tourism perspective*. CABI.
- Secretaría de Estado de Comercio, Turismo y Pyme. (2000). Plan Integral de Calidad del Turismo Español (PICTE). Ministerio de Economía y Hacienda. Retrieved July 7, 2023, from <https://www.dataestur.es/conocimiento-turistico/planes-nacionales-de-turismo/>
- Secretaría General de Turismo. (2008). Plan de Turismo Español Horizonte 2020 (2008–2012), [Spanish Tourism Plan Horizon, 2020]. Ministerio de Industria, Turismo y Comercio. Retrieved July 7, 2023, from <https://www.dataestur.es/conocimiento-turistico/planes-nacionales-de-turismo/>
- SEGITTUR. (2021). Nota interna referida a la última metodología de diagnóstico DTI. Documento de trabajo (28/10/2021).
- Soares, J. C., Domareski Ruiz, T. C., & Ivars Baidal, J. A. (2022). Smart destinations: A new planning and management approach? *Current Issues in Tourism*, 25(17), 2717–2732. <https://doi.org/10.1080/13683500.2021.1991897>
- Song, H., Liu, J., & Chen, G. (2013). Tourism value chain governance: Review and prospects. *Journal of Travel Research*, 52(1), 15–28. <https://doi.org/10.1177/0047287512457264>
- Sorokina, E., Wang, Y., Fyall, A., Lugosi, P., Torres, E., & Jung, T. (2022). Constructing a smart destination framework: A destination marketing organization perspective. *Journal of Destination Marketing & Management*, 23, 100688. <https://doi.org/10.1016/j.jdmm.2021.100688>
- UNWTO. (2013). Tourism Product Development Manual, from: <https://www.unwto.org/archive/global/publication/manual-de-desarrollo-de-productos-turisticos>
- UNWTO. (2019). UNWTO guidelines for institutional strengthening of destination management organizations (DMOs) – Preparing DMOs for new challenges. Available at: <https://www.eunwto.org/doi/book/10.18111/9789284420841>
- UNWTO. (2021, November 11). Global virtual INSTO meeting on governance, from <https://www.unwto.org/event/2021-global-virtual-insto-meeting>
- Volgger, M., & Pechlaner, H. (2014). Requirements for destination management organizations in destination governance: Understanding DMO success. *Tourism Management*, 41, 64–75. <https://doi.org/10.1016/j.tourman.2013.09.001>
- Welsey, A., & Pforr, C. (2010). The governance of coastal tourism: Unravelling the layers of complexity at Smiths Beach, Western Australia. *Journal of Sustainable Tourism*, 18(6), 773–792. <https://doi.org/10.1080/09669581003721273>

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The Innovation Pillar in the Spanish Smart Tourism Destination (DTI) Model



SEGITTUR and Lidia Andrades

Abstract Innovation represents a strategic tool for tourism destinations to cope with challenges that currently threaten the tourism sector. This chapter, after introducing the concept and context of innovation in tourism, addresses how this strategic tool, when is made available to tourism managers, acts as a transversal lever to promote actions and differential strategies that support destinations on their adoption of a smart tourism management (DTI) model. Specifically, innovation is another DTI model pillar, with a weight of 9.3% of the total model, exercised across three key areas of work that destinations are encouraged to address from the open innovation paradigm: (1) Innovative management/governance; (2) Innovation activities; and (3) Innovation ecosystem. These three areas of action are developed in 9 requirements and 14 indicators, presented in detail in the chapter. Lastly, the chapter provides examples of the typical recommendations that are usually made to destinations in this area of management of the DTI model, together with some final reflections illustrating the main challenges faced by Destination Management Organizations (DMOs) when implementing the actions required by the model DTI in this pillar of innovation.

1 Introduction

This chapter looks at innovation within the strategic smart destination management (DTI) model and follows the same structure as the other chapters dedicated to the pillars of the model (Fig. 1).

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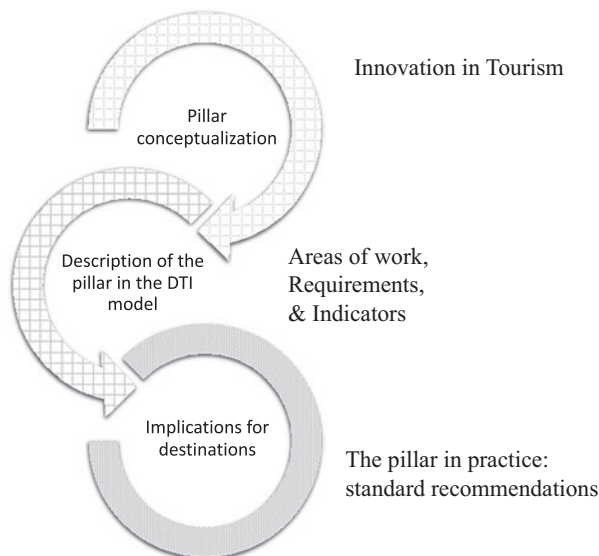


Fig. 1 Chapter outline

As shown, after the introduction, there is an initial section to bring the reader closer to the theme of the pillar, in this case, the concept of innovation; followed by a section that describes how the DTI model defines innovation as a differential strategy for smart tourism destinations; and in conclusion, a section is dedicated to providing a practical overview of the innovation pillar, offering the reader examples of the typical recommendations usually made to destinations in this area of the DTI model's management. This chapter also includes a list of bibliographical references associated with innovation.

In relation to the section where the concept of innovation is addressed to provide context, the reader is hereby informed that the scope of this section does not extend to providing an exhaustive review of the complex concept of innovation, which has been widely studied from a variety of perspectives and on many subjects to a significant subjective burden. However, it does aim to bring the reader closer to the concept of innovation through a series of simple and commonly accepted operational definitions, for them to contextualize and understand the innovation management proposal for tourism destinations as part of the methodology set out under the DTI model.

About the methodological section, it provides a detailed description of the innovation pillar in the latest available edition of the model, referring to the first quarter of 2022. Each of the areas of action that make up the pillar is listed objectively, detailing the requirements referred to in each innovation management area and the indicators for monitoring compliance.

Finally, the fifth section serves a propositional nature, as it sets out "standard" recommendations in the field of innovation that are usually extended to destinations

in the smart destination management adoption process. Furthermore, this section sets out the shared reflection of the SEGITTUR team responsible for the implementation and monitoring of the model in tourism destinations that have adopted the smart destination methodology and illustrates the main difficulties and challenges that destinations face when implementing the strategic DTI model in relation to innovation.

2 The Concept of Innovation in Tourism

Innovation is a critical factor both for tourism destinations and for companies that operate in them; it represents a strategic commitment to be competitive in both the medium and long term (Teixeira & Ferreira, 2018; Tugores & García, 2015). In 1934, Schumpeter defined innovation as the process of creating knowledge, or combining existing knowledge, which translates into improvements in the competitiveness of an organization. This initial definition has been developed on significantly, having been studied from different perspectives, which have given rise to a complex conceptualization and as varied as the perspectives taken to analyze it (Hjalager, 2015). The different approaches adopted complement one another, helping to define it appropriately (Pikkemaat et al., 2019). Furthermore, innovation has been studied aiming to determine in which contexts it occurs (Divisekera & Nguyen, 2018) or how the processes that give rise to innovations are configured (Kozak, 2014; Yeh & Ku, 2019). Its relationship with the knowledge and technology available at any given time has also been explored (Del Chiappa & Baggio, 2015; Nieves & Haller, 2014). Other authors have studied innovation from specific contexts, such as SMEs, with a view to identifying the factors that define it (Kallmuenzer, 2018; Tejada & Moreno, 2013). How users of products and/or services can promote innovations has also been subject to study (Gardiner & Scott, 2018).

In the field of tourism, particular efforts have been dedicated to studying how the governance of a destination, especially collaborative governance, encourages innovation (Halkier, 2014; Marasco et al., 2018). Furthermore, the role of “eco-innovation” and how it can help both tourism destinations and companies to be more sustainable has received considerable attention (Buijtendijk et al., 2018; Triguero et al., 2013). Another aspect subject to analysis is how public policies can promote innovation in destinations and at companies (Mei et al., 2015; Rodríguez, et al., 2014; Romão et al., 2013).

The common element shared by all definitions of innovation is the concept of “novelty,” on the basis that innovating always implies a change based on incorporating something “new.” The necessary change can be introduced at any stage of the production process and can consist of a variety of activities: renew or expand the currently supplied tourism products and services, incorporate new methods of production, supply and distribution, or make changes to the management and organization of work and human resources, to name just a few. In the tourism sector, these “changes” associated with innovation can be introduced as part of the destination

management process: for instance, changes to reduce environmental impacts, rationalizing the consumption of resources and reducing the amount of waste generated, or generally speaking, making changes and improvements to the process of providing the tourism service. Moreover, innovation in tourism may be also associated with changes in the management of an SME, which, on account of its size, does not have access to the technology and economies of scale accessible to larger companies, but may benefit from open innovation.

One general reflection regarding the innovation process is the practical difficulty inherent into the identification, measurement, and transfer of innovations. In the United Kingdom, a very revealing report was published, under the heading “Hidden Innovation,” (NESTA and the Government of the United Kingdom, 2007), which presented a category of innovations known as “hidden,” identified across six strategic sectors in the country. Innovations were classified as “hidden” because they had not been registered, patented, or disclosed, despite offering solutions that optimized the competitiveness of these sectors and significant transfer potential.

One possible definition that summarizes the many existing conceptualizations in the field of innovation is the definition offered by the European Commission (1996, p. 4),¹ which defined it as the process of “producing, assimilating and successfully exploiting a novelty, in economic and social spheres, in such a way that it provides unprecedented solutions to problems and thus makes it possible to respond to the needs of people and society.”

More recently, the OECD/Eurostat (2018) generalized the definition of innovation to any process that leads to the production of a new, improved product or to the improvement of an existing process, leading to a substantial improvement in the pre-existing product or process.

In Spain, the COTEC Foundation,² set out a more all-encompassing definition, describing it as “any change based on knowledge that adds value.” It also clarified that “the change” does not necessarily have to consist of the introduction of a new technology, that the “knowledge” from which said change starts does not have to be scientific, and that the “value” provided does not have to be economic, rather, it could be social or environmental, for example.

Although the initial definitions meant that for an innovation to be considered as having occurred, there must be a “significant change” as regards the starting situation (Souto, 2015), the existence of “incremental innovations” has subsequently been acknowledged. These are understood as processes that lead companies or destinations on a path of continuous improvement, of subtle transformations, which in the long term give rise to relevant changes when compared to the starting situation, although in the short term the changes may not seem significant, there is a sustained improvement over time (Johannessen et al., 2001). With this in mind,

¹ Comisión Europea (1995) Libro Verde de la Innovación. Available at: <https://sid-inico.usal.es/docs/F8/FDO11925/libroverde.pdf>

² Fundación COTEC para la Innovación Tecnológica. (2012). Tecnología e Innovación en España. Available at: http://www2.ulpgc.es/hege/almacen/download/7103/7103236/informe_cotec_2012.pdf

innovation is by no means a single process. Additionally, in the context of the tourism sector, where services are provided rather than products, the concept of innovation must be more refined (Coombs & Miles, 2000). In the provision of tourism services, the interaction between the service provider and the tourist will be a determining factor in the latter's experience (Chang, 2017; Dimanche & Andrades, 2018); therefore, as part of innovation processes in the tourism sector, the tourist often plays a leading role in the co-creation of value (Chen et al., 2017).

With a view to cataloguing the types of innovation in tourism, Hjalager (2010) proposed distinguishing between innovations in products that involve launching a new development on the market; innovations in processes that improve the production or distribution system, the latter being key in the field of tourism; innovations in the organizational structure, in the management or in the marketing of destinations or companies, which entail an improvement in the organization of certain areas or a greater customer orientation, better responding to their needs and/or desires. Another author who has contributed significantly to listing the innovations that take place in the tourism sector is Gomezelj (2016). Taking all the foregoing into account, there are areas in the tourism sector where innovation is particularly important, as is the case of human resource management, as this is a labor-intensive industry and the ultimate tourist experience is determined based on their interaction with the service provider, meaning that the employee acts as the "touch point" between the company (Bani-Melhem et al., 2018; Sørensen & Jensen, 2015) or destination (Zopiatis & Theocharous, 2018) and the tourist. Below, the Managing Director of COTEC foundation for innovation, a Spanish private non-profit organization aiming boosting innovation as a driver for economic and social development, explains how the DTI Model supports innovative management for tourism destinations.

2.1 The DTI Model Represents an Excellent Opportunity to Include Innovation at the Heart of Tourism Management

Innovation is a core pillar for the economic and social development of any country. Not only is it a catalyst for growth, it is also an essential strategy in adapting to changes and overcoming the challenges facing society.

At the COTEC Foundation, we analyze and promote innovation, on the understanding that for the Spanish economy to make the qualitative leap that it needs, it is important for this commitment to be extended across all sectors of activity. It is essential that it do this in the sectors that contribute most decisively to the generation of activity and employment, as is the case of tourism. To this end, we have celebrated the inclusion of SEGITTUR as a member of the foundation because this allows us to enhance our work agenda in promoting tourism innovation.

SEGITTUR is a key agent in promoting the Smart Destination model. The adoption of the smart destination model represents a paradigm shift in tourism management, as innovation represents one of its core pillars. This not only implies the use of new technologies, but also the transformation of business processes and models.

At COTEC, we believe that the smart destination model represents an excellent opportunity to include innovation at the heart of tourism management and, as a result, contribute to the development of tourist destinations that are sustainable, attractive, and competitive, adapted to the needs of the 21st century.

I am convinced that the future of tourism depends on innovation and the adoption of the Smart Destination model. Working together, we can make innovation a core pillar in the construction of tourist destinations that truly set the benchmark on a global scale.

Jorge Barrero

Managing Director of the COTEC Foundation

<https://cotec.es/en>

3 Tourism Innovation Within the Framework of the DTI Model

As explained previously, in the tourism sector, innovation represents a strategic tool for overcoming the challenges that the industry faces. These challenges can be attributed to the fact that this is a highly globalized sector, which operates in a very competitive environment, in interconnected markets and very sensitive to any change that occurs, both within and beyond the sector's borders. Furthermore, the tourism sector, given its unique nature, is closely linked to climate change, sustainable mobility, digitalization and the incorporation of new stakeholders in the tourism value chain, safety and health management in destinations and, generally speaking, will be significantly affected by any type of economic turbulence that occurs and disrupts tourism demand (disposable income and consumption capacity, the cost of transportation, the option of travelling or not in case of pandemics, etc.).

All these specific features explain why it is ideal for the tourism industry to introduce gradual and constant innovations, allowing it to evolve as changes occur, while optimizing its processes, becoming more sustainable, economically, socially, and environmentally. Innovating helps the sector to overcome the challenges it faces and represents a lever of change in itself for the creation of value: saving time and resources, simplifying procedures and processes, improving the tourist experience, enhancing communication channels between tourists and destination service encounter points, allowing tourists participation on the value co-creation process at destinations, enabling positive interactions between host community and tourists, assuring residents wellbeing and enhancing the quality of life of the population residing in the destination and, ultimately, increasing business competitiveness and the competitiveness of the destination as a whole.

Despite the numerous advantages offered by innovation, in practice, there is a high level of resistance to changes that prevent the adoption of innovations in the sector. Reluctance that can usually be traced to the very structural nature of the sector: the lack of human resources with innovation training; the absence of stable financing to support innovation, sometimes meaning that projects undertaken end up being nothing more than a "flash in the pan"; insufficient public leadership in promoting innovation; limited commitment from the business sector, combined with the difficulty of systematically integrating innovation processes into the

company as part of its business culture; the difficulty of transferring innovations between the different links of the tourism value chain; and finally, the huge inequality between the different subsectors active in the tourism sector.

Despite all these obstacles, innovation is essential to strengthening the competitiveness of the Spanish tourism sector, so SEGITTUR proposed the strategic smart destination management (DTI) model to consider it as a core pillar on which it rests. For a destination to consolidate its position and consider itself “smart,” it must necessarily be an innovative destination, open to change, which encourages the continuous improvement of its processes, and that stimulates the introduction of technological tools that facilitate the accomplishment of its objectives.

Through the different areas of innovation, and the corresponding requirements and indicators, the smart destination model offers destination managers a practical guide for promoting the successful development of innovations in their destinations, being more competitive, identifying and harnessing opportunities, minimizing risks, designing new strategies that allow it to stand out and generate additional value for tourists and residents, exploring new ways of preserving the environment, reducing consumption and waste, etc.

As the reader will have been able to deduce in the previous section, for an organization to be innovative, it must have an atmosphere that is conducive to creativity, entrepreneurship, and innovation, while ensuring the necessary resources are available. The DTI model, when establishing the areas of action under the innovation pillar, started based on these premises and, as a result, established the three areas divided into 9 requirements on which to work for destinations that intend on being innovative. The following section provides details of these areas, with the corresponding requirements and measurement indicators.

4 Areas of Action, Requirements and Indicators in Relation to Innovation in the DTI Model

The innovation pillar is articulated in destinations around three areas of action, encompassing the mechanisms and resources for planning and managing innovation in the destination, the innovative activities in which such management is realized, and the effort to foster an environment conducive to the emergence of innovations in the destination, under an open innovation paradigm. These three areas of action are specified in 9 requirements and 14 indicators.

4.1 Area of Action 1: Innovative Governance/Management

In area 1, the DTI model sets out 4 requirements (Table 1), with the corresponding achievement indicators, which have been defined to ensure that the DMO plans its innovative actions and sets out its internal organization in such a way that it is possible to coordinate them, placing them at the service of its strategic objectives. Furthermore, planning the allocation of financial and human resources for the

Table 1 Innovation pillar in the DTI model: Area 1: Requirements and indicators

INNOVATION, AREA 1: INNOVATIVE GOVERNANCE/MANAGEMENT	
REQUIREMENT 1: STRATEGY AND MANAGEMENT SYSTEM FOR INNOVATION IN THE DESTINATION.	
An analysis is performed as to whether the destination has a strategy in place for channeling innovation and whether it has complied with the UNE standards as regards the requirements that an R&D project and its management must satisfy at destination organizations and companies (UNE 166001:2006 ^a and UNE 166001:2006 ^b).	
indicators	Suitability of the strategy or innovation plan in relation to tourism (50%)
	The destination has an innovation strategy or plan in place: 25%
	Furthermore, the innovation strategy/plan in place includes tourism as a preferred sector for innovation: 25%
	No innovation strategy or plan is in place: 0%
	Degree of implementation of management systems at tourism companies and/or destination agencies (une 166001:2006 and une 166002:2021) (50%)
	There are at least two certified companies and/or bodies: 50%
	There is at least one certified company and/or body: 25%
	There is no certified company or body: 0%
REQUIREMENT 2: PROMOTION OF INNOVATION IN TOURISM THROUGH TENDERS	
Indicators	Degree of use of innovative public procurement (100%)
	Provision of at least one Innovative Public Procurement (IPP) tender connected to tourism: 50%
	Provision of at least one tourism tender awarded in the past year, which includes innovative clauses or assessment criteria for innovation in projects: 50%
	There has been no IPP tender linked to tourism: 0%
REQUIREMENT 3: PUBLIC RESOURCES DEDICATED TO INNOVATION	
The destination allocating financial and human resources to innovation is regarded positively.	
Indicators	Suitability of the budget allocated to innovation (50%)
	A specific amount is set aside to finance innovation: 20%
	There is also a specific item for innovation projects in tourism: 30%
	No budget is set aside for innovation in tourism: 0%
	Suitability of human resources dedicated to innovation (50%)
	Members of staff are dedicated to innovation activities: 10%
	Innovative staff are dedicated to tourism projects: 20%
	At least 70% of innovative staff receive innovation training on an annual basis: 20%
	There is no innovative staff: 0%
REQUIREMENT 4: PROMOTION OF OPEN INNOVATION	

(continued)

Table 1 (continued)

The destination collaborating with external partners to carry out R&D&i activities, identifying challenges, encouraging cooperation with third parties (private sector, knowledge institutions, international partners, etc.), development of LivingLABs, etc. is regarded positively.	
Indicators	Suitability of programmes and actions for promoting open innovation (35%)
	General programs and actions are in place: 15% It also has specific programs and actions for tourism: 20% It has none of them: 0%
	Participation of the managing body in collaborative innovation projects (35%) Collaborative projects are those resulting from official tender processes and collaborate with the destination's administration/local entity, companies, and research centers/universities.
	The managing body participates in at least two projects: 15% At least one of the projects is tourism-based: 20% The managing body does not participate in any project: 0%
	Percentage of innovative effort in the form of events and meetings (30%)
	Meetings with an innovative purpose will be considered those that are held in the destination between businesspeople, institutions, and research centers/universities. Events to promote innovation in tourism will be considered forums, seminars, conferences, fairs, etc., open to different types of audiences, which promote innovation in tourism in the destination and that are held at least once per year. Meetings with an innovative purpose at least once per year: 15% Events to promote innovation in tourism, at least once per year: 15% Neither meetings nor events are held: 0%

^aUNE standard 166,001:2006 R&D&i management: Requirements of an R&D&i project. This Standard defines the necessary requirements that facilitate the systematization of research, development, and innovation activities in the form of R&D&i projects. Furthermore, the aim is to help define, document, and prepare R&D&i projects, as well as how to improve their management and communication to stakeholders

^bUNE standard 166,002:2021 R&D&i management: Requirements of the R&D&i Management System. This Standard sets out the requirements and guidance to establish, implement, maintain, and continuously improve the R&D&i management system applicable throughout the organization

development and systematization of innovation management, both internally and externally, is highly appreciated, designing actions that contribute to the stimulation of an open innovation environment that optimizes innovation in the destination.

4.2 Area of Action 2: Innovation Activities

Area 2 reviews the innovation activities performed in the destination based on four requirements (Table 2). The requirements in this area correspond to two lines of work. First of all, innovation applied to the resolution of social problems in the

Table 2 Innovation pillar in the DTI model: Area 2 requirements and indicators

INNOVATION, AREA 2: INNOVATION ACTIVITIES.	
REQUIREMENT 5: PROMOTION OF SOCIAL INNOVATION.	
Indicators	Scope of social innovation plans (100%) The DMO has social innovation plans in place, for which there is a clear and planned budget: 40% Furthermore, the plans address problems in relation to tourism activity (noise emissions, overcrowding, etc.): 60% There are no social innovation plans in place: 0%
REQUIREMENT 6: PERCEPTION OF INNOVATION BY RESIDENTS AND VISITORS.	
The destination understands and monitors how residents and visitors perceive its innovative undertakings.	
Indicators	Availability of surveys exploring the perception of innovation in the destination (100%) Yes: 100% No: 0%
REQUIREMENT 7: DEVELOPMENT OF INNOVATIVE TOURISM PRODUCTS AND SERVICES.	
An assessment is performed of the number of innovative tourism products and/or services developed in the past year. Product innovation is understood as supplying to the market a new or improved product or service that differs significantly from the previous products or services offered.	
Indicators	Degree of development of innovative tourism products (in the past year) (100%) 4 products or more: 100% 3 products: 75% 2 products: 50% 1 product: 25% No product: 0%
REQUIREMENT 8: INNOVATION IN PROCESSES.	
An assessment is performed of the annual number of innovations under way, understanding as such new or improved processes for one or more functions of the DMO that differ significantly from the previous processes that had been applied.	

(continued)

Table 2 (continued)

Indicators	<p>Percentage of functions performed by the managing body in which process innovations have been introduced (in the past two years) (100%).</p> <hr/> <p>Innovations have been introduced in marketing or sales: 33,3%</p> <p>Innovations have been introduced in information and communication systems: 33,3%</p> <p>Innovations have been introduced in administration and management: 33,3%</p> <p>No process innovations have been introduced: 0%.</p>
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destination, from a broad perspective and with particular attention paid to problems attributable to tourism activity in the territory. Secondly, the active work of innovation applied to the search for new products, services, and processes or the improvement of existing ones. Furthermore, this area also looks at the need for the DMO to understand how this innovation is relayed to residents and visitors and their perception of the work that the destination does in this field.

4.3 Area of Action 3: Innovation Ecosystem

This area aims to encourage tourism destinations to design environments capable of stimulating the economic competitiveness of the territory, facilitating the efficient development of innovation projects by companies, businesspeople, organizations, and other stakeholders. As a result, the established requirement ambitions to generate the necessary conditions for transforming knowledge into innovation. Furthermore, the aim is to ascertain the real and potential innovation capacities of tourism companies in the destination (Table 3).

5 The Innovation Pillar in Practice: Standard Recommendations

With a view to offering an idea of the practical implications of applying the pillar in tourism destinations that aspire to be a DTI, this section sets out, by area of action, some of the most common recommendations made to destinations after the diagnosis phase (described in detail on chapter “Methodological Framework of the Spanish Smart Tourism Destinations Model”).

Table 3 Innovation pillar in the DTI model: Area 3: Requirement 9 and indicators

INNOVATION, AREA 3: INNOVATION ECOSYSTEM	
REQUIREMENT 9: PROMOTION OF THE INNOVATION ECOSYSTEM IN THE DESTINATION.	
Indicators	Suitability of programmes and actions for promoting the innovation ecosystem (60%)
	Initiatives including those below will be considered as programs and actions to promote the innovation ecosystem: incentives, awards, training, awareness raising, entrepreneurship programs, incubation, acceleration, etc.
	Programs and actions are in place: 20% It also has programs and actions aimed specifically at tourism: 40% None: 0%
	A survey is in place to measure the innovation of tourism companies in the destination (40%)
	Surveys are in place: 40% None: 0%

5.1 *Main Recommendations, Area 1*

Area of action 1 of the innovation pillar was established to encourage innovative management and governance of the destination, ensuring that public resources are provided for innovation, that tenders encourage innovation, and that open innovation (Chesbrough, 2003) is also fueled. Table 4 provides an example of a recommendation that is usually made to destinations for each requirement.

5.2 *Main Recommendations, Area 2*

Area 2 of the innovation pillar has been designed first of all to stimulate innovative actions in the destination, fostering social innovation, innovation in processes and the development of innovative products and services as well as to learn about the perception of both residents and visitors regarding the innovation in the destination. Thus, “typical” recommendations, reflected in Table 5, offer examples of how the destination can put these objectives into practice.

5.3 *Main Recommendations, Area 3*

As area 3 specified for promoting the generation of an innovation ecosystem in the destination, the recommendations referring to this area of work provide the destination with a series of guidelines for developing a variety of actions that together facilitate and boost this innovative atmosphere in the destination (Table 6).

Table 4 Examples of recommendations for improving the innovation of the destination in area 1

AREA 1: INNOVATIVE GOVERNANCE/MANAGEMENT
REQ. 1: STRATEGY AND MANAGEMENT SYSTEM FOR INNOVATION IN THE DESTINATION
Define a municipal innovation management plan that details the main actions being undertaken, as well as those expected to be implemented. Actions such as identifying services with a high potential for innovation. This plan must also be consistent with the destination’s strategic plan.
REQ. 2: PROMOTION OF INNOVATION IN TOURISM THROUGH TENDERS
To harness the purchasing power of the public sector, as a pioneer in the adoption of innovative solutions not yet available on a large scale, promoting PPI (Innovative Public Procurement) processes in tourism is recommended, for example, based on improving the training of staff in charge of public tenders. Furthermore, introducing innovation assessment criteria in tenders is also a standard recommendation.
REQ. 3: PUBLIC RESOURCES DEDICATED TO INNOVATION
For example, considering the following concepts in the budget allocated to innovation in the destination is recommended: Search for opportunities and generation of ideas. Staff training and awareness raising. Implementation of innovation supporting tools. Investment in-house or shared innovation projects. Coordination and control of innovation projects. Allocating items specifically to the financing of innovative projects in tourism is recommended. The design and implementation of programs and actions for the promotion of open innovation is recommended, such as processes for identifying challenges with third parties, the promotion of collaboration with the private sector, bodies of knowledge or others, the implementation of cooperation projects abroad, the development of LivingLABs or any other action that contributes to promoting innovation through cooperation with organizations and stakeholders from outside the DMO. Furthermore, designing programs and launching initiatives that promote open innovation in the specific area of tourism is advisable. The tourism sector in general and destinations in particular increasingly depend on open innovation to expand their internal capacities and develop new opportunities and skills.

6 Lessons Learned in the Field of Innovation in DTIs: Challenges

The application of the smart destination model in destinations represents a new and ambitious commitment by local entities to promote the smart development of their territory through the implementation of a strategic smart management model. This commitment, as well as representing an opportunity to reinforce the competitiveness of the destination in the area of tourism, constitutes a challenge for the public managers responsible for leading the smart destination diagnosis process and implementing the corresponding action plan.

In relation to the innovation pillar, the implementation of the DTI model is additionally complex on account of the triple challenge posed: first of all, the subject matter itself, since innovation is not an easy concept to approach: it requires

Table 5 Examples of recommendations for improving the innovation of the destination in area 2

AREA 2: INNOVATION ACTIVITIES

REQ. 5: PROMOTION OF SOCIAL INNOVATION

The following stages are recommended for the design and implementation of the Social Innovation Plan:

Getting stakeholders involved.

Fostering partnerships. The DMO should establish the strongest possible partnerships with the relevant stakeholders on the ground to achieve the desired objectives.

Creating spaces for collaboration with citizens. It is about making progress with the creation of spaces in which collaboration between citizens and public services (officials, municipal companies, etc.) is possible, with a view to achieving more open, collaborative, and innovative services.

Agreeing success indicators. This entails establishing simple KPIs that ensure the right measurement of both social and business performance.

Promoting a culture of innovation in the territory.

Promoting projects that seek to solve tourism challenges from a social dimension is recommended, such as mobility challenges during the high season, the deficits posed by the collaborative and circular economy, the problems created by overcrowding, the loss of authenticity of destinations, etc.

REQ. 6: PERCEPTION OF INNOVATION BY RESIDENTS AND VISITORS

Designing an annual survey is advisable, making it possible to ascertain the perception of innovation amongst tourists and residents, through the collection of different data, including but not limited to:

Relative advantages of innovation (extent to which a potential adopter will obtain or benefit from the adoption of a new innovation).

Compatibility (how well the innovation fits into the adopter's social, personal, and technological environment).

Social pressure (the extent to which a potential adopter may feel compelled to adopt an innovation because of peer pressure or intra-group expectations).

Complexity (degree to which an innovation is considered difficult to understand and use).

Perceived risk (measures the perception of both the uncertainty of an unknown future outcome and the potential loss in relation to a failed product).

Discontinuity (includes the consumer's ability to make comparisons with pre-existing products and their consideration of the effort required to adopt the new innovation). This information can be related to the sociodemographic characteristics of respondents (age, gender, educational level, income, professional category, origin, etc.), which should also be included in the survey.

REQ. 7: DEVELOPMENT OF INNOVATIVE PRODUCTS AND SERVICES

(continued)

Table 5 (continued)

It is recommended that the DMO make the commitment to the development of tourism products based on innovation as a lever for the creation of value.
 To this end, designing a strategy that serves to promote the annual introduction of new or significantly improved tourism products and services is advisable.
 The main aspects to be considered in the strategy will be as follows:
 Identification of needs and new market niches.
 Identification of resources, heritage, and spaces that are underused or that could be put to tourist use in the destination.
 Promotion of the generation of ideas involving new products and services.
 Development of a system for the selection of ideas that takes the technical and financial feasibility of product innovations into consideration.
 Allocation of a specific budget dedicated to the development of new and improved products.
 Commitment to innovation in the production of content for new products and services.
 Development of a procedure for detecting aspects of improvement in the products included in the current portfolio.
 Given the risk associated with innovation, it will be crucial to establish a procedure for testing and monitoring innovative products.

REQ.8: INNOVATION IN PROCESSES

Promoting innovation in the DMO’s following processes is recommended:

1. Innovation in sales and marketing processes. A number of lines with which to make progress are as follows:
 - (a) Promote/optimize the online marketing of public and private products and service portfolio, mainly through the effective development of a multi-channel and multi-platform strategy that takes local objectives and resources into consideration.
 - (b) Make the commitment to the innovative management of relations with tourists, implementing tourist relationship management systems, and favoring bidirectional communication channels to allow the design of value co-creation strategies.
 - (c) Develop custom campaigns depending on the season of the year, special events or campaigns developed by competitors in the market.
2. Innovation in information and communication systems. It is recommended that the DMO introduce innovations in relation to the maintenance and provision of information and communication systems:
 - (a) Hardware and software.
 - (b) Data processing and databases.
 - (c) Maintenance and repair.
 - (d) Web hosting and other information activities related to computing.
3. Innovations in administration and management processes, which may have an impact on the following areas of the managing body:
 - (a) Strategic and general management (multi-functional, transversal decision-making).
 - (b) Corporate governance (legal, planning, and public relations).
 - (c) Accounting, records, auditing, payments, and other financial activities.
 - (d) Human resources management.
 - (e) Management of external relations with suppliers, partnerships, etc.

familiarization with the definition and its nature based on the most commonly accepted standards; secondly, the application of innovation to a field such as tourism, insofar as industrial activities and not services have been most frequently associated with innovation processes; and, finally, the challenge of transferring this to the field of public administration at a local level, where innovation has not traditionally been a specific part of aspects that make up its powers, pursuant to those

Table 6 Examples of recommendations for enlightening the innovation of the destination in area 3

AREA 3: INNOVATION ECOSYSTEM

REQ. 9: PROMOTION OF THE INNOVATION ECOSYSTEM IN THE DESTINATION

The design and implementation of programs and actions for promoting the innovation ecosystem in the destination are recommended by undertaking initiatives including but not limited to the following:

Design of programs aimed at attracting and retaining talent in the destination.

Aid and incentives for the implementation of innovative projects, in addition to the incorporation of innovations by companies in the destination.

Promotion of an accelerator or incubator or management of agreements with existing accelerators or incubators to facilitate access for local entrepreneurs.

Promotion of specific actions that assist entrepreneurship, such as mentoring or support in the processing of applications for other programs.

Call for tenders for awards and contests for ideas, proposals, and entrepreneurship projects.

Promotion of training and qualifications for the different stakeholders in the ecosystem, improving the development of innovation capacities in the destination.

Programs or actions aimed at attracting private investment in R&D&i in the territory.

Promotion of the establishment of new stakeholders and design of programs aimed at attracting companies, with a view to reinforcing the critical mass of the ecosystem.

Ensuring that actions to stimulate the innovation ecosystem specialize in tourism is recommended, by designing specific programs for entrepreneurs, companies, and tourism innovation projects.

attributed to local authorities by Article 25 of Law 7/1985, of 2 April, regulating the bases for the local system (LRBRL³).

Innovation is not and should not be considered as a specific matter where the local entity exercises its own powers, within the list of areas defined by the LRBRL, rather it must be understood as a cross-cutting tool at the service of a better and more efficient management of these powers, in particular those that directly or indirectly interact with tourism. Innovation provides us with new ways of identifying and addressing the problems facing a local entity and new tools to solve them; it is also an attitude, a way of working, a management system, and a different way of interacting.

In fact, bringing destination managers closer to the phenomenon of innovation and clarifying its scope and attributes in the case of innovation in tourism is not only one of the main challenges faced when embarking on the diagnosis process, but also a critical aspect that must be addressed in order to successfully collect information about the process of preparing the smart destination diagnosis. When the smart destination model is applied to smaller destinations, with limited resources and that are embarking on the smart development process, one unexpected initial result of the diagnosis is this improvement in the knowledge of the destination's managers in relation to innovation and its possibilities in the public sector. As a result, the diagnosis process becomes a process of self-knowledge, where the smart destination diagnosis serves as a tool for discovering potential that the destination was previously unaware of and opportunities for improvement not previously detected.

³(LRBRL): Ley Reguladora de las Bases del Régimen Local.

Bidding for projects under the Innovative Public Procurement approach, the certification of management systems under UNE 166001 (R&D&i Management: requirements of an R&D&i project) and UNE-166002 (requirements of an R&D&i management system), the promotion of local entrepreneurship and support for SMEs, or the potential of social innovation to address the problems caused by tourism activity are just a few examples of the new areas of work, which are determined as part of the diagnosis interviews. These were often previously unknown to tourism managers because they fall outside their traditional mission.

This widespread and apparent initial ignorance does not mean that innovations are not being developed in destinations. In practice, the preliminary clarification of terminology and concepts helps innovations undertaken and promoted by the local entity, but not identified as such, to flourish. This is particularly significant in the case of product innovations where, often, the tourism manager does not recognize successful improvements made to products and services as innovations, often supported by the manager's (often tacit) knowledge.

That being said, the difficulty of measuring this pillar in line with the requirements and indicators established in the DTI model is also closely related to the usual non-existence of areas or departments within local entities assigned specifically to innovation activities. In the case of smaller, often rural, destinations, it is common for the technology area to assume the role of promoting innovative projects in the destination. To this end, this area also often participates as the provider of key information for the diagnosis of the pillar, introducing a strong technological bias in the type of innovations deployed and identified. This factor must be taken into account and addressed by the evaluator.

In most of the destinations diagnosed with this shortcoming, the non-existence of an area dedicated to innovation is compounded by the failure to allocate both budgetary and human resources, which are specific and sufficient for the development of innovative activities. This represents a significant obstacle when it comes to addressing the actions set out in the action plan in the short term.

The lack of strategic planning when it comes to innovation, the absence of dedicated internal capacities or systematization in relation to the management of innovative projects are elements that are usually present in these destinations, where innovation is not managed separately. However, these elements are not unique to smart destination model; rather, they correspond to the barriers to innovation that the public sector generally experiences when addressing the challenge of innovation.

In contrast, when applying the diagnosis of the innovation pillar, there is an additional and particular difficulty that local entities face in this pillar, which has to do with two main factors. First and foremost, the internal consideration of tourism as a sector with potential for innovation. Second, the role that a key piece of the DTI model plays within the corporation: the tourism area. This area is responsible for the tourism management of the destination, for driving the smart management project forward and for many of the actions to be implemented. However, this department is often far removed from the internal structures where transformational projects are traditionally promoted, a separate structure that does not facilitate the implementation of the DTI model.

This reality is also manifested in destinations that dedicate more resources to innovation and that have a particularly noteworthy territorial position when it comes to R&D&i. Even in these cases, the tourism area does not usually participate in interdepartmental bodies, nor in cross-cutting projects with an innovative component that the destination embarks upon, such as Sustainable and Integrated Urban Development (DUSI) Strategies, despite the fact that they have a direct relationship with the performance of tourism activity in the territory.

To this end, a critical task of the DTI model in this pillar is to reinforce the consideration of the tourism area and of the sector itself, not only as an economic activity and source of wealth for the destination, but also as a priority sector for innovation.

The very performance of the diagnosis and the definition of the action plan for this pillar, placing tourism managers and tourism at the heart of a project as ambitious as the conversion of a destination into a smart destination, which affects almost all institutions in the destination, facilitate the subsequent development of lines of work in this area: transferring experience and know-how in the management of innovations to tourism projects; incorporating the tourism area into the interdepartmental teams that define innovation projects; or ensuring the specific dedication of the innovative capacities available to new tourism actions are clear examples of this.

Looking beyond the internal dimension and the specific conditions that destinations may present, there is an additional complexity when addressing the pillar, which lies in the fact that local entities are agents that develop their innovations within an ecosystem with a multitude of interconnected stakeholders that must operate, pursuant to the DTI model, under the paradigm of open innovation.

Measuring the success of the deployment of innovation in tourism or assessing the perception of visitors and residents of innovation is a challenge that requires that the destination manager have knowledge of the real capacities of the ecosystem in which it innovates and develop collaborative innovation management strategies in which entrepreneurs and tourism companies participate, in a special way.

In short, experience in the application of the innovation pillar in destinations demonstrates that there are common problems, but also allows non-explicit tasks of the model to be performed. Bringing innovation closer to managers, placing tourism at the heart of the innovative impulse, and connecting the local entity to its innovation ecosystem are, at the same time, tasks to be addressed in the diagnosis and lessons learned that lay the foundations for managing entities not only to develop, but also to lead tourism innovation in their destinations.

References

- Bani-Melhem, S., Zeffane, R., & Albaity, M. (2018). Determinants of employees' innovative behavior. *International Journal of Contemporary Hospitality Management*, 30(3), 1601–1620. <https://doi.org/10.1108/IJCHM-02-2017-0079>

- Buijendijk, H., Blom, J., Vermeer, J., & van der Duim, R. (2018). Eco-innovation for sustainable tourism transitions as a process of collaborative co-production: The case of a carbon management calculator for the Dutch travel industry. *Journal of Sustainable Tourism*, 26(7), 1222–1240. <https://doi.org/10.1080/09669582.2018.1433184>
- Chang, Y.-W. (2017). A preliminary examination of the relationship between consumer attitude towards space travel and the development of innovative space tourism technology. *Current Issues in Tourism*, 20(14), 1431–1453. <https://doi.org/10.1080/13683500.2015.1005580>
- Chen, J.-S., Kerr, D., Chou, C. Y. C., & Ang, C. (2017). Business co-creation for service innovation in the hospitality and tourism industry. *International Journal of Contemporary Hospitality Management*, 29(6), 1522–1540. <https://doi.org/10.1108/IJCHM-06-2015-0308>
- Chesbrough, H. W. (2003). *Open innovation: The new imperative for creating and profiting from technology*. Harvard Business School Press.
- Coombs, R., & Miles, I. (2000). Innovation, measurement and services: The new problematic. In J. S. Metcalfe & I. Miles (Eds.), *Innovation systems in the service economy* (pp. 85–103). Kluwer Academic Publishers.
- Del Chiappa, G., & Baggio, R. (2015). Knowledge transfer in smart tourism destinations: Analyzing the effects of a network structure. *Journal of Destination Management and Marketing*, 4(3), 145–150. <https://doi.org/10.1016/j.jdmm.2015.02.001>
- Dimanche, F., & Andrades, L. (2018). Co-creation of experience value: A tourist behaviour approach, in creating experience value in tourism (2nd edition). In: N. K. Prebensen, J. S. Chen, & M. S. Uysal (Eds.), (pp. 83–97). CABI. <https://doi.org/10.1079/9781786395030.008>
- Divisekera, S., & Nguyen, V. K. (2018). Drivers of innovation in tourism: An econometric study. *Tourism Economics*, 24(8), 998–1014. <https://doi.org/10.1177/1354816618794708>
- European Commission. (1996). Green Paper on innovation. Document drawn up on the basis of COM(95) 688 final, Bulletin of the European Union Supplement 5/95. Available at: <https://op.europa.eu/en/publication-detail/-publication/ad1d6f21-0b2e-423f-9301-c608035e906f>
- Gardiner, S., & Scott, N. (2018). Destination innovation matrix: A framework for new tourism experience and market development. *Journal of Destination Management and Marketing*, 10, 122–131. <https://doi.org/10.1016/j.jdmm.2018.07.002>
- Gomezelj, D. O. (2016). A systematic review of research on innovation in hospitality and tourism. *International Journal of Contemporary Hospitality Management*, 28(3), 516–558. <https://doi.org/10.1108/IJCHM-10-2014-0510>
- Halkier, H. (2014). Innovation and destination governance in Denmark: Tourism, policy networks and spatial development. *European Planning Studies*, 22(8), 1659–1670. <https://doi.org/10.1080/09654313.2013.784609>
- Hjalager, A.-M. (2010). A review of innovation research in tourism. *Tourism Management*, 31(1), 1–12. <https://doi.org/10.1016/j.tourman.2009.08.012>
- Hjalager, A.-M. (2015). 100 innovations that transformed tourism. *Journal of Travel Research*, 54(1), 3–21. <https://doi.org/10.1177/0047287513516390>
- Johannessen, J. A., Olsen, B., & Lumpkin, G. T. (2001). Innovation as newness: What is new, how new, and new to whom? *European Journal of Innovation Management*, 4(1), 20–31. <https://doi.org/10.1108/14601060110365547>
- Kallmuenzer, A. (2018). Exploring drivers of innovation in hospitality family firms. *International Journal of Contemporary Hospitality Management*, 30(3), 1978–1995. <https://doi.org/10.1108/IJCHM-04-2017-0242>
- Kozak, M. W. (2014). Innovation, tourism and destination development: Dolnośląskie case study. *European Planning Studies*, 22(8), 1604–1624. <https://doi.org/10.1080/09654313.2013.784597>
- Marasco, A., de Martino, M., Magnotti, F., & Morvillo, A. (2018). Collaborative innovation in tourism and hospitality: A systematic review of the literature. *International Journal of Contemporary Hospitality Management*, 35(5), 553. <https://doi.org/10.1108/IJCHM-01-2018-0043>

- Mei, X. Y., Arcodia, C., & Ruhanen, L. (2015). The national government as the facilitator of tourism innovation: Evidence from Norway. *Current Issues in Tourism*, 18(12), 1172–1191. <https://doi.org/10.1080/13683500.2013.822477>
- NESTA/Gobierno Reino Unido. (2007). Hidden Innovation. How innovation happens in six “low innovation” sectors. Disponible en: https://media.nesta.org.uk/documents/hidden_innovation.pdf
- Nieves, J., & Haller, S. (2014). Building dynamic capabilities through knowledge resources. *Tourism Management*, 40, 224–232. <https://doi.org/10.1016/j.tourman.2013.06.010>
- OECD/Eurostat. (2018). *Oslo manual 2018: Guidelines for collecting, reporting and using data on innovation* (4th ed.). OECD Publishing.
- Pikkemaat, B., Peters, M., & Bichler, B. F. (2019). Innovation research in tourism: Research streams and actions for the future. *Journal of Hospitality and Tourism Management*, 4, 184–196. <https://doi.org/10.1016/j.jhtm.2019.10.007>
- Rodríguez, I., Williams, A. M., & Hall, C. M. (2014). Tourism innovation policy: Implementation and outcomes. *Annals of Tourism Research*, 49, 76–93. <https://doi.org/10.1016/j.annals.2014.08.004>
- Romão, J., Guerreiro, J., & Rodrigues, P. (2013). Regional tourism development: Culture, nature, life cycle and attractiveness. *Current Issues in Tourism*, 16(6), 517–534. <https://doi.org/10.1080/13683500.2012.699950>
- Schumpeter, J. A. (1934). *The theory of economic development*. Harvard University Press.
- Sørensen, F., & Jensen, J. F. (2015). Value creation and knowledge development in tourism experience encounters. *Tourism Management*, 46, 336–346. <https://doi.org/10.1016/j.tourman.2014.07.009>
- Souto, J. E. (2015). Business model innovation and business concept innovation as the context of incremental innovation and radical innovation. *Tourism Management*, 51, 142–155. <https://doi.org/10.1016/j.tourman.2015.05.017>
- Teixeira, S. J., & Ferreira, J. J. (2018). A bibliometric study of regional competitiveness and tourism innovation. *International Journal of Tourism Policy*, 8(2), 214–243. <https://doi.org/10.1504/IJTP.2018.094483>
- Tejada, P., & Moreno, P. (2013). Patterns of innovation in tourism ‘small and medium-size assessment and suggestions for future research. *Strategic Management Journal*, 28(2), 121–146. <https://doi.org/10.1002/smj.573>
- Triguero, A., Moreno-Mondéjar, L., & Davia, M. A. (2013). Drivers of different types of eco-innovation in European SMEs. *Ecological Economics*, 92, 25–33. <https://doi.org/10.1016/j.ecolecon.2013.04.009>
- Tugores, M., & García, D. (2015). The impact of innovation on firms’ performance: An analysis of the hotel sector in Majorca. *Tourism Economics*, 21(1), 121–140. <https://doi.org/10.5367/te.2014.0440>
- Yeh, C. C., & Ku, E. C. S. (2019). Process innovation capability and subsequent collaborative team performance in travel planning: A knowledge exchange platform perspective. *Current Issues in Tourism*, 22(1), 107–126. <https://doi.org/10.1080/13683500.2017.1328667>
- Zopiatis, A., & Theodorou, A. L. (2018). Praxis: The determining element of innovation behavior in the hospitality industry. *Journal of Hospitality and Tourism Management*, 35, 9–16. <https://doi.org/10.1016/j.jhtm.2017.12.004>

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The Technology Pillar of the Spanish Smart Tourism Destination (DTI) Model



SEGITTUR and Lidia Andrades

Abstract Technology is a key pillar of the strategic management model for smart tourism destinations (DTI), as it represents an essential tool for improving the innovative capacity, governance, sustainability, and accessibility of tourism destinations, and therefore their competitiveness. The chapter begins by providing a contextualization of technology applied to the tourism sector and then describes how the DTI methodology integrates it into destination management through the technology pillar. This pillar represents a weight of 22% of the DTI model and is articulated through 21 requirements and 62 indicators through which the performance of the destination is evaluated in three areas: Technologies applied to governance; Technological infrastructures and connectivity; and Technologies for smart tourism management. This chapter also details, by areas of action, the requirements, and indicators together with the main recommendations, linked to each area of the technology pillar, which are usually formulated to destinations that are implementing the DTI model in terms of technological implementation. Finally, the chapter concludes with a reflection on the main challenges currently faced by destinations in relation to their implementation.

1 Introduction

Nowadays, available technologies offer great potential to meet many of the challenges that the tourism sector faces today, providing solutions that were unthinkable a few years ago, such as the measurement of tourist flows and the carrying capacity

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of the destination through sensors, the development of mobility management systems or object interaction systems.

The digital transformation of the tourism sector enables the development of new business models, introducing changes in the way work is organized, improving service delivery, bringing substantial benefits linked to more efficient management of transactions, and facilitating the collection, processing, and analysis of available information on tourism supply and demand, improving decision-making (Buhalis et al., 2019). Additionally, technology allows optimizing the connection between the different links in the tourism value chain, strengthening tourism ecosystems, and increasing the overall performance of the sector (Almeida-Santana et al., 2020).

Because of all these opportunities and competitive advantages derived from modernization linked to the promotion of a digital transformation of the tourism sector, the OECD (2020, 2022) recommended that countries promote regulatory frameworks that strengthen the capacity of SMEs to join and participate in digital ecosystems, incentivizing the adoption of and investment in new technologies, and preparing them for a digital future. The OECD, aligned with this initiative, in its Handbook on Competition Policy in the Digital Age (2022), discloses the key contents of the work carried out until December 2021 on digital competition policy.

In this global context, the technology pillar of the Spanish Smart Tourism Destinations (DTI) model takes on full significance, as part of the national strategy for the development of smart destinations. Tourism destinations rely on a cutting-edge technological base to improve and strengthen their governance, accessibility, sustainability, and innovative capacity.

This chapter looks at the technology pillar within the strategic management model for smart destinations and follows the same structure as the rest of the chapters dedicated to the five pillars of the model (Fig. 1).

As shown in Fig. 1, following this introduction, Sect. 2 provides an approach to the theme of the pillar, conceptualizing and dimensioning the technologies currently available for the tourism sector. This section is not intended to be an exhaustive review of available technologies applicable to tourism. The current unprecedented technological revolution has undoubtedly led to the emergence of multiple technological solutions that could be implemented in the sector, although it is beyond the scope of this chapter to describe them as it would take us away from the primary objective of this manual, which is to explain with clarity the DTI strategic management methodology proposed by SEGITTUR in the field of technology. However, Sect. 2 does address the role that technology plays today in the provision of tourism services and destination management, helping to understand the technology management proposal that the DTI model establishes for tourism destinations joining this strategic management methodology.

Section 3 describes how the DTI model uses technology as the backbone of smart destinations, addressing the different areas of action identified for this pillar: Technologies applied to governance; Technological infrastructures and connectivity; and Technologies for smart tourism management. This section provides a detailed description of the technology pillar in the latest available edition of the model, relating to the first quarter of 2022, by listing objectively, for each of its

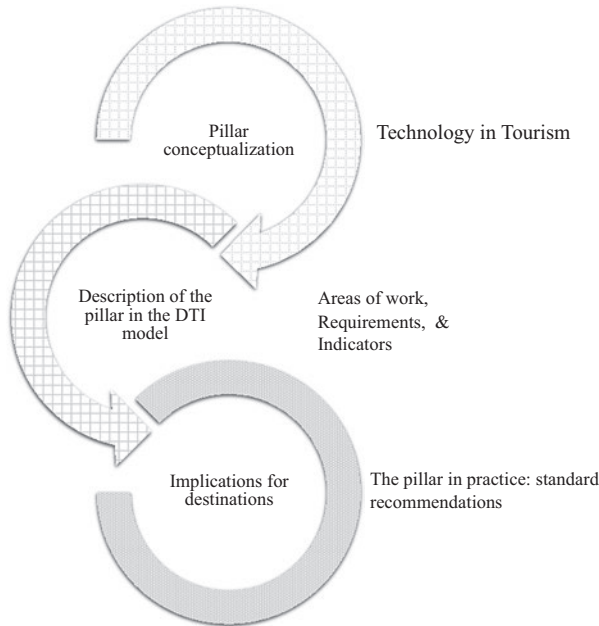


Fig. 1 Chapter outline

areas, the requirements and indicators used to make the initial diagnosis of the destinations, as well as to monitor their performance until all the requirements of this pillar are met. Next, Sect. 4 takes a practical approach to the technology pillar and how it is implemented in destinations, illustrating some of the typical recommendations that are often made to destinations when working on this pillar of the model.

Finally, Sect. 5 concludes the chapter by presenting a reflection on the main challenges that destinations face when implementing this pillar and the aspects that are expected to demand future attention and development.

The reader can find, as in the rest of the chapters dedicated to the pillars of the DTI model, a list of bibliographical references on the role of technology in the tourism sector.

2 Technology in the Context of the Tourism Sector

In recent decades, technological advances in the field of telecommunications, the rise and development of new hardware and software devices oriented toward communication, the progress of disciplines related to artificial intelligence, massive data processing, semantic analysis and sentiment analysis through active listening systems have made it possible to take the gauge the pulse of society, and ultimately, to enhance the primacy of information management to support decision-making,

promoting an unprecedented social transformation. Today, the impact of the changes brought about by technological adoption has spread to all sectors of economic activity, inaugurating an era marked by technological development, known as the “Knowledge Society,” a society characterized by the leading role played by technology.

The tourism sector has not been immune to this technological revolution and has been greatly influenced by the innovations that have emerged (Ivars-Baidal et al., 2023; Watkins et al., 2018). Buhalis (2020) published a review of the technological innovations that since 1946 influenced the development of the tourism industry, starting with the technological advances in the field of air transport after World War II, to the emergence of the first Tourism Intelligence Systems and Destination Management Systems, which supported tourism management and made it more efficient (Buhalis, 1993; Sheldon, 1993). Global Distribution Systems, Reservation Management Systems, and Management Systems for tour operators and travel agencies also improved inventory control, capacity management, revenue optimization and yields, increasing the productivity of these companies (Inkpen, 1998; Sheldon, 1997). Moreover, with the development of the internet and the emergence of search engines such as Google, access to information has reached levels never imagined before. At that time, the first Hotel Management Systems (O’Connor, 1999; Paraskevas et al., 2011; Sigala, 2003) or Customer Relationship Management Systems (Benckendorff et al., 2019; Buhalis, 2000; Werthner & Klein, 1999), designed at the end of the last century to revolutionize the way tourism marketing is done, enabling a customization of the offer, the recommendation of services adapted to tourists’ needs, interests, preferences, search patterns, purchase history, etc. (Mistilis et al., 2014). Similarly, the emergence of platforms that support social networks and blogs greatly encouraged interaction between users, which, in the field of tourism, gave rise to virtual travel communities and websites that disseminate travelers’ opinions, such as TrypAdvisor (Hays et al., 2013; Law et al., 2014). All these technological advances facilitated the interaction and interconnection between tourists like never before, being able to express and share their opinions, and gaining a capacity to influence the reputation, brand image, and performance of tourism companies that did not exist in the past (Inversini & Buhalis, 2009). Among the key trends of the digital age in the tourism sector, and from the demand side, is the hyper-connectivity of travelers, who are increasingly dependent on technology and permanent connectivity (Kim & Law, 2015; Wang et al., 2012). Tourists are constantly using electronic devices to stay connected to the Internet during their trips, not only to search for information and/or make reservations, but also to communicate with friends and family, interact with other tourists, share photos and videos while travelling, becoming true prescribers of the destination visited.

In the twenty-first century, the development of the Semantic Web, which makes interoperability between computers and databases feasible, integrating massive data and promoting collaboration between agents through the Web (Buhalis & Foerste, 2015; Buhalis & Sinarta, 2019; Werthner & Ricci, 2004), together with the intensive adoption by citizens of mobile devices and smartphones, with the capacity to mediate the tourist experience, have provided the necessary infrastructure for companies

providing tourism services to co-create value “with and for” their customers (Boes et al., 2016; Buhalis & Amarangana, 2015; Gretzel et al., 2015), improving their experiences and tourists’ satisfaction (Xu et al., 2017). Technology is a driving factor in the competitiveness of both tourism destinations and companies (Boes et al., 2016; Park et al., 2023), as discussed by Professor Guevara below.

Technological Challenges in Smart Destinations

The DMOs of tourism destinations are immersed in a transformative process to change their current model based on promotion. They are striving to establish an effective management model that enables them to tackle the current challenges of tourism destinations, linked to competitiveness, digitalisation and sustainability.

The priority is to promote quality tourism, with high added value, and meeting the needs of all agents in the tourism value chain: tourists, destinations and companies. This challenge must be addressed through coordinated planning of the various levels of governance that operate in the destinations, by promoting collaboration between public administrations (public-public), between companies and public administrations (public-private) and also between companies (private-private).

Consequently, it will be very important to plan an adequate digital strategy, by developing a “Smart Destination Platform”, based on interoperability and which enables the integration of various technologies, as the only possible way to increase the competitiveness of the tourism sector, and transform it into a sustainable model.

Implementing such platform will involve facing different challenges. First, the integration of public and private data, essential to generate competitive intelligence. Second, planning to incorporate various technologies into the organisation. This involves analysing the interoperability with existing, implemented systems. The risk of poor systems planning is of an exponential increase in the necessary technological investment. As a result, the processes and their management become so complicated that they do not produce the intended competitive advantages. Third, one of the main challenges will be to encourage companies in the territory to be competitive in the marketing and distribution of tourism products, and not only in the response to and provision of tourist services. This requires a focus on knowledge management and the design of an adequate digitalisation plan, using the platform as a facilitating tool to directly access the global market.

In short, achieving interoperability for the implementation of integrated destination management systems becomes vital. The development of an integrative technological platform will therefore allow destination companies and organisations to understand the preferences of tourists and residents, facilitate marketing, identify demand profiles, trace and manage tourist flows, etc., resulting in the reinforced competitiveness and sustainability of destinations.

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In the tourism industry, digital transformation has had a particularly significant impact in recent years, allowing the traveler’s experience to be improved and optimized at all stages of the travel cycle (Gretzel, 2011). It is a fact that digital technologies are changing the way travelers plan, book, and experience trips (Ivanov and Webster, 2019), while offering new opportunities for businesses to improve their processes (Mandic & Garbin-Pranicevic, 2019). The use of Online Reservation Systems is now widespread, allowing travelers to book flights, accommodation, transport and activities on their own; the same is true for mobile technologies that help them plan their trip, make reservations, receive real-time updates and obtain

useful information about tourism destinations, places they visit, reviews from other travelers, interactive maps, personalized recommendations, etc. (Pan & Fesenmaier, 2006). Recently, Virtual and Augmented Reality make it possible to provide personalized immersive and enriching tourism experiences (Soliman et al., 2021). Artificial Intelligence and Massive Data Analysis optimize the management of tourism supply, help predict demand, improve efficiency, and reduce costs and unwanted impacts (Gössling, 2016). The digitization of the tourism sector improves accessibility and inclusiveness of tourists in destinations (Buhalis & Michopoulou, 2013), contributes to the sustainable management of resources (Del Vecchio et al., 2018; Rodrigues et al., 2023), and improves the governance of destinations, making it more participatory and involving the various agents operating in the destination (Dexeus, 2018; Trunfio & Campana, 2019). New economic agents are emerging from the perspective of tourism service supply, with a significant disruptive capacity, which are moving toward Industry 4.0, basing their business model on new enabling technologies, among them: Artificial intelligence (AI), Big data and analytics, Internet of things (IoT), Cybersecurity, Blockchain, Cloud Computing, etc. (Kim & Law, 2015; Tussyadiah et al., 2018). In view of the above, the technification of destinations and their ability to move toward digital transformation becomes a strategic tool to meet the challenges of the tourism industry (Gretzel et al., 2015; Ivars-Baidal et al., 2023). The main success factor in digital transformation is the adoption of Digital Enabling Technologies (DETs) such as IoT, Bigdata, AI, Blockchain, supercomputing and future 5G networks, gamification, radio-frequency identification, 3D printing, cryptocurrencies, etc., all of which have the power to shape what Buhalis et al. (2019) calls a “*Smart Atmosphere for Tourism*”¹ based on a network of related technologies that generate the enabling infrastructures for new forms of tourism management. These DETs have a high capacity for disruption and impact, as well as having an enabling, horizontal, and strategic nature for the digital transformation of any productive sector, and particularly the tourism sector, as professor Buhalis develops in the box below. Accordingly, the availability of a competitive offer of DET products and services is a catalyst for accelerating digital transformation processes, but also a great opportunity for the industry sector of digital technologies (Kalia et al., 2022) as well as for the tourism sector. Thus, it is essential that any model that pursues the intelligent management of tourism destinations necessarily relies on the technological dimension to achieve its goals, which is why the smart destination strategic management model proposed by SEGITTUR includes the technology pillar as one of its fundamental pillars. Consequently, it is fundamental that any model that pursues the intelligent management of tourism destinations necessarily relies on the technological dimension to achieve its goals, which is why the smart destination strategic management (DTI) model proposed by SEGITTUR includes the technology pillar as one of its fundamental pillars.

Smart Tourism, Artificial Intelligence, and Metaverse

Smart tourism revolves around the harmonious interaction and interlinking of various stakeholder systems and entities within the tourism ecosystem. Drawing insights from the litera-

¹Ambient intelligence (Aml) tourism.

ture on smart cities, smart tourism unifies the different elements of the tourism ecosystem to enhance the collaborative creation of value for all stakeholders (Buhalis, 2020). The concept of smart tourism encapsulates the convergence of information technologies, business networks, and the realm of tourism experiences. Smart Tourism uses sensors and tools to collect and dynamically analyze big data; networks to seamlessly interconnect different systems and intelligence to develop suitable propositions that maximize value for all stakeholders.

In practice, smart tourism empowers destinations to establish a network encompassing all involved parties, while simultaneously streamlining the functioning of the entire digital framework. Leveraging extensive data garnered from a variety of sources, it can aid destinations in strategically and tactically managing their resources sustainably. This dataset encompasses forecasts of tourist volume and movement patterns, traveler preferences, and consumption trends. These diverse data streams are pooled within the cloud and originate from sources such as sensors, telecommunications operators, social media platforms, smartphone applications tailored for tourists, access monitoring systems employing assorted cards, e-commerce and mobile commerce platforms, banking cards and their associated applications, street surveillance cameras and security systems, intelligent terminals, advanced reading technologies, radio frequency identification, and GPS-based systems for positioning, guiding, touring, and reservations.

Big data serves as the input for intelligent destinations, which employ Artificial Intelligence (AI) and other transformative technologies for data mining towards bolstering decision-making processes and optimizing the overall ecosystem (Buhalis, 2020; Bulchand-Gidumal et al., 2023). The culmination of this endeavor manifests as an array of real-time services that are contextually and location-specific (Buhalis & Sinarta, 2019), ultimately maximizing value for all involved parties and revolutionizing marketing (Buhalis & Volchek, 2021).

The Metaverse stands as a transformative technological concept poised to reshape society by blending virtual and physical realms, ushering in immersive and illusionary experiences that transcend current boundaries. The Metaverse envisions a fusion of the digital and physical universes, facilitating seamless transitions between them (Buhalis et al., 2023⁶). Within this interconnected landscape, users can engage in diverse immersive recreational activities and social interactions. Metaverse is anticipated to revolutionize hospitality, travel and tourism by improving destination awareness and support trip planning (Buhalis et al., 2022). This innovation is expected to transform consumer behaviors and interactions, potentially motivating real-world travel experiences (Buhalis & Karatay, 2022). As 3D simulations mature, immersive technologies like mixed reality, augmented reality, and virtual reality are becoming increasingly recognized for their role in allowing tourists to preview destinations prior to their journeys and enhance their real experiences.

Smart tourism, AI and Metaverse propel a transformation of the tourism industry ecosystem generating a paradigm shift a reengineering of the business models and procedures across the entirety of the tourism ecosystem.

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3 The Technology Pillar in the Framework of the Smart Tourism Destination (DTI) Strategic Management Model

As discussed above, technology is one of the key factors in successfully tackling the current challenges in the tourism sector and effectively addressing them. For this reason, the DTI model includes among its pillars the technology pillar, structured in

Table 1 Requirements and indicators of the different areas of the technology pillar

Technology pillar		
Areas	No. requirements	No. indicators
Area 01: Technologies applied to governance	6	15
Area 02. Technological infrastructures and connectivity	7	16
Area 03. Technologies for smart tourism management	8	31
Total	21	62

three areas of action: Technologies applied to governance; Technological infrastructures and connectivity; and Technologies for smart tourism management. These three areas take the form of 21 requirements that are measured through 62 indicators (Table 1).

Each of these areas of action is discussed in more detail on the following pages, describing the requirements that make them up, as well as the indicators that allow destination managers to diagnose their starting situation in the area in question and to measure their progress while the model is implemented.

3.1 Area of Action 1: Technologies Applied to Governance

In area 1, the DTI model contemplates six requirements to achieve destination governance that, on a technological basis, can be more effective, participatory, and transparent. Requirement 1 concerns the existence of a unit for the management of ICTs to facilitate their adoption and management; requirement 2 assesses that the destination has a “SMART” Plan, strategy and projects linked to tourism activity, as well as the existence of a Smart technical office in charge of promoting and managing these projects; requirement 3 promotes the technological development of the destination linked to the “SMART” strategies and projects of the previous requirement; requirement 4 ensures that there are strategies and technologies that promote cybersecurity; requirement 5 assesses the existence of a data portal made publicly available for consultation, redistribution, and free reuse, respecting the privacy and security of information; finally, requirement 6 measures whether the destination uses two-way communication tools between the administration and citizens (residents and non-residents) for the transmission of alarms, incidents, complaints, warnings, or any other relevant information.

Through these requirements with their corresponding indicators, it is possible to make a diagnosis of the different resources available (ICT areas, plans, strategies, technologies) that can facilitate the management and governance of the destination from a technological point of view. Table 2 presents each of the requirements with their associated indicators.

Table 2 Technology pillar in the DTI model: Area 1: Requirements and indicators

TECHNOLOGY, AREA 1: TECHNOLOGIES APPLIED TO GOVERNANCE	
REQUIREMENT 1: AREA/UNIT FOR ICT MANAGEMENT.	
Indicators	There is an area/unit for ICT management (100%)
	In place: 100% Not in place: 0%
REQUIREMENT 2: STRATEGIC PLANNING AND SMART PROJECTS (CITY/ISLAND/LAND) IN THE DESTINATION	
Indicators	Smart (city/island/land) strategic plan published, less than 4 years since its creation (50%)
	Yes, and there are various projects that affect tourism: 25%
	Yes, and tourism is a vertical in the plan: 25%
	There are no projects or strategies: 0%
	Smart projects (50%)
	There is a Smart City Technical Office or Data Office that supports Smart projects: 50%
	There are Smart projects in operation, but they are not included in a plan: 50%
There are none: 0%	
REQUIREMENT 3: SMART DEVELOPMENT IN THE DESTINATION.	
Indicators	Comprehensive service management platform or operational city platform (40%)
	There is and includes information that affects tourism activity: 40%
	There is, but it does not include information that affects tourism activity: 20%
	Not in place: 0%
	Integrated services in the city platform (40%)
	More than 40 integrated services × 100k inhabitants: 40%
	10–40 integrated services × 100k inhabitants: 20%
	Less than 10 integrated services × 100k inhabitants: 0%
	There is a geographic information system (gis) with geolocated resources (10%)
	In place: 10% Not in place: 0%
Application of technology to the citizen card (application, nfc, beacons, top-up interfaces) (10%)	
Applied: 10% Not applied: 0%	
REQUIREMENT 4: CYBERSECURITY STRATEGY	
Indicators	There is a cybersecurity strategy (60%)
	There is a defined cybersecurity strategy: 60%
	There is no defined cybersecurity strategy, but a risk assessment has been carried out: 20%
	There is no cybersecurity strategy, and no risk assessment has been carried out: 0%
	Use of blockchain (40%)
It is used: 40% Not used: 0%	
REQUIREMENT 5: OPEN DATA PLATFORM	

(continued)

Table 2 (continued)

TECHNOLOGY, AREA 1: TECHNOLOGIES APPLIED TO GOVERNANCE		
The existence of a web portal that, while respecting privacy, facilitates public and secure access to data of interest is assessed, as well as the quality of this data (through the 5-star development scheme (https://5stardata.info/es/), the number of data sets and the tools, processes or applications that facilitate the publication of data in open format)		
Indicators	Data quality of the open data portal (40%)	
	The portal features open data publications about tourism with a minimum score of 3 stars: 40%	
	The portal meets at least the 3-star Open Data standard (5stars.info): 20%	
	The destination does not have its own open data portal, but it shares datasets on the datos.gob.es portal: 10%	
	The destination does not have its own open data portal and it does not share datasets on the datos.gob.es portal: 0%	
	There are systems or processes in place to facilitate the publication of open data (30%)	
	There are: 30%	There are none: 0%
	No. Datasets per 100k inhabitants on the open data portal (30%)	
	More than 100 datasets published for every 100k inhabitants: 30%	
	15–100 datasets published for every 100k inhabitants: 15%	
Less than 15 datasets published for every 100k inhabitants: 0%		
REQUIREMENT 6: EXISTENCE OF TWO-WAY COMMUNICATION TOOLS BETWEEN THE PUBLIC ADMINISTRATION AND CITIZENS		
It relates to the availability of two-way communication tools between the Administration and the Citizenry for the transmission of relevant information		
Indicators	There are tools for the administration to send alarms, incidents, and notices (20%)	
	There are: 20%	There are none: 0%
	There are tools for sending alarms, incidents, complaints by residents/non-residents (40%)	
	Yes, and the system allows to know the origin of the user or to differentiate between residents/non-residents: 40%	
	There are systems or processes, but it is not possible to know the user's origin or differentiate between residents/non-residents. 20%	
	There are none: 0%	
	Incidents, alarms, and complaints attended to x 100k inhabitants (40%)	
	More than 5000 incidents attended to for every 100k inhabitants: 40%	
2000–5000 incidents attended to for every 100k inhabitants: 20%		
Less than 2000 incidents for every 100k inhabitants: 0%		

3.2 Area of Action 2: Technological Infrastructures and Connectivity

Area 2 was defined to assess the availability in the destination of the technological infrastructures necessary to improve the management of some aspects of the destination and to facilitate connectivity for the visitor and the resident. In this area, the DTI model considers seven requirements: Connectivity to fixed networks at the

destination (fiber-optic, mobile, satellite, etc.); Connectivity to Mobile networks at the destination; Connectivity at tourist points of interest (POIs) and Tourist Information Offices; Cloud Computing and Edge Computing Solutions; Free Wi-Fi Availability; Sensorization and management systems; and Management systems for tourism spaces (in the COVID 19 context). These requirements, together with its 16 indicators, make it possible to diagnose aspects related to connectivity in destinations, the quality of coverage, the availability of sensorization systems, the existence of Cloud Computing and Edge Computing services, and in general, systems that facilitate the management of tourism services (information, reservations, payment, flow control, etc.). Table 3 describes each of these requirements with their associated indicators.

Table 3 Technology pillar in the DTI model: Area 2: Requirements and indicators

TECHNOLOGY AREA 2: TECHNOLOGICAL INFRASTRUCTURES AND CONNECTIVITY	
REQUIREMENT 7: CONNECTIVITY TO FIXED NETWORKS AT THE DESTINATION (FIBER-OPTIC, SATELLITE, ETC.)	
Connectivity to fixed networks of the destination with sufficient quality that allows the use of online services for visitors and residents	
Indicators	Internet connectivity with (download) speed of at least 100 mbps in part of the territory (60%)
	There is: 60%
	There is none: 0%
	Territory covered by internet connection with speed of at least 30 mbps (40%)
	More than 90% of the territory covered: 40%
	80–90% of the territory covered: 20%
	Less than 80% of the territory covered: 0%
REQUIREMENT 8: CONNECTIVITY TO MOBILE NETWORKS AT THE DESTINATION	
Connectivity to mobile networks of the destination with sufficient quality that allows the use of online services for visitors and residents	
Indicators	Connectivity to mobile networks (100%)
	5G coverage with 5GSA infrastructure: 100%
	5G NSA coverage: 75%
	4G coverage: 50%
	Other lower quality options: 0%
REQUIREMENT 9: CONNECTIVITY AT TOURIST POINTS OF INTEREST (TPIS) AND TOURIST INFORMATION OFFICES	
Sufficient Internet connectivity at Tourist Points of Interest (TPIs) to allow the use of online services for visitors and residents and at Tourist Information Offices	
Indicators	Availability of free wi-fi in at least 50% of the tpis promoted on the tourism web portal (60%)
	Yes: 60%
	No: 0%
	Availability of free wi-fi in 100% of the tourist information offices (40%)
	Yes: 40%
	No: 0%

(continued)

Table 3 (continued)

TECHNOLOGY AREA 2: TECHNOLOGICAL INFRASTRUCTURES AND CONNECTIVITY	
REQUIREMENT 10: CLOUD COMPUTING AND EDGE COMPUTING SOLUTIONS	
Indicators	There are cloud computing and edge computing solutions (100%)
	Yes: 100% No: 0%
REQUIREMENT 11: FREE WI-FI AVAILABILITY	
Connectivity through free Wi-Fi, relying on the network of municipal facilities spread throughout the destination	
Indicators	Possibility of using free wi-fi at the destination (50%)
	Yes: 50% No: 0%
	Access to the municipal public wi-fi for access on the street/public spaces (50%)
	Access of more than 4000 users per year × 100k inhabitants: 50% Access of 1000–4000 users per year × 100k inhabitants: 25% Access of less than 1000 users per year × 100k inhabitants: 0%
REQUIREMENT 12: SENSORIZATION AND MANAGEMENT SYSTEMS	
The destination has sensors and systems that allow for improved management of some aspects of the destination	
Indicators	There are sensors/cameras used for mobility management, the use of public transport, the regulation of road parking, natural surroundings or environmental parameters (40%)
	They are used: 40% They are not used: 0%
	There is a system for managing mobility/traffic, managing the use of public transport, regulating road parking, managing natural surroundings and managing environmental parameters (50%)
	In place: 50% Not in place: 0%
	There is an application for users with information, translated into at least 1 foreign language, on mobility/traffic in real time, use of public transport, regulation of road parking, natural surroundings or environmental parameters (10%)
In place: 10% Not in place: 0%	
REQUIREMENT 13: MANAGEMENT SYSTEMS FOR TOURISM SPACES (IN THE COVID-19 CONTEXT)	

Table 3 (continued)

TECHNOLOGY AREA 2: TECHNOLOGICAL INFRASTRUCTURES AND CONNECTIVITY	
Assessment of the availability of systems that facilitate the management of tourism services, information and management systems on tourist flows and the use of technology to facilitate the management of capacity in public spaces	
Indicators	Payment and information systems that reduce physical contact (online payment, nfc, qr information) (10%)
	There are: 10% There are none: 0%
	Booking systems for natural tourism resources (beaches, natural parks) (10%)
	There are: 10% There are none: 0%
	Information systems and management of pedestrian movement and calculation of tourist flows (30%)
	There are: 30% There are none: 0%
	Use of state-of-the-art technology (e.G., Drones) for control and information of capacity (overcrowd) in public spaces (30%)
	It is used: 30% It is not used: 0%
	Co2 meters against covid-19 (20%)
	They are used: 20% They are not used: 0%

3.3 Area of Action 3: Technologies for Smart Tourism Management

Area of work 3 of the technology pillar of the DTI model was defined to ensure that destinations apply technology in the service of tourism management, promoting the implementation of systems, technologies or applications that enable the exchange of information, the development of apps and web spaces that project an attractive and accurate image of the destination, facilitating interaction with tourists, and the latter with the resources, products, and services offered at the destination. Within this area, 8 requirements are considered: Requirement 14 related to the availability and use of tourism intelligence systems, technologies, and tools; requirement 15, which assesses the quality of the destination's Tourism Web Portal; requirement 16, which determines the traceability of the promotional campaigns developed in the destination; requirement 17, which specifies whether the destination has a Tourist Card with advanced technological support that enhances its tourism offer; requirement 18, which refers to the tourism applications developed by the destination to gather information and interact with its visitors; requirement 19, concerning smart signage; requirement 20, which assesses the level of technology in the destination's tourist offices; and lastly, requirement 21, which analyzes whether the destination manages its relationship with visitors in an automated way, gathering information about them to enable it to adapt its offer. These 8 requirements along with their 25 indicators are detailed in Table 4.

Table 4 Technology pillar in the DTI model: Area 3: Requirements and indicators

TECHNOLOGY, AREA 3: TECHNOLOGIES FOR SMART TOURISM MANAGEMENT	
REQUIREMENT 14: TOURISM INTELLIGENCE (SYSTEMS, TECHNOLOGY, AND TOOLS)	
The availability of data transformation and information analysis systems, automatic data capture, the ability of the information systems, and the procedures they support to share data and enable the exchange of information between them are all taken into account. The availability of software packages to facilitate the sending, completion and receipt of surveys, data analysis to track destination branding and visitor satisfaction, and the ability to create dashboards or tracking reports to monitor the destination are also valued	
Indicators	Automatic collection of visitor data via wi-fi hotspots, apps, web (complying with data protection regulations) (20%)
	There are: 20%
	There are none: 0%
	Interoperability, integration, and communication (20%)
	There are: 20%
	There are none: 0%
	Data transformation and information analysis technologies (big data, business intelligence, business analytics) (20%)
	There are: 20%
	There are none: 0%
	Digital tools or software packages to conduct and manage surveys (10%)
Yes, they are: 10%	
There are none: 0%	
Tracking of destination brand and visitor satisfaction (15%)	
Yes: 15%	
No: 0%	
Dashboards and tracking reports to monitor the status of the destination (15%)	
Customizable by user profile: 15%	
Non-customizable: 10%	
There are no dashboards: 0%	
REQUIREMENT 15: TOURISM WEB PORTAL	
The destination has a tourism web portal with a modern and responsive graphic design that allows the information to be consulted from different devices; the content is updated frequently and has multimedia and provides personalized content depending on the visitor's profile; the traffic it hosts is monitored and has been implemented considering the security protocols indicated by the General Data Protection Regulation (GDPR)	

Table 4 (continued)

TECHNOLOGY, AREA 3: TECHNOLOGIES FOR SMART TOURISM MANAGEMENT	
Indicators	The web portal design has been updated in the last 4 years with responsive design criteria (20%)
	Yes: 20% No: 0%
	Updating the content of the tourism portal (20%)
	It provides personalized content recommendation systems: 5% The content of some sections of the website is updated (e.g., events/agenda) at least on a weekly basis (e.g., events/agenda): 5% The content (e.g., resource sheets, events) is updated from a collaborative approach (sectoral associations, private agents): 4% Newsletter subscription option: 3% Multimedia library: 3%
	The official tourism website ranks in the top five google results when searching for the name of the destination and the name + "tourism"/"visit" (15%)
	Yes: 15% No: 0%
	The domain (url) of the website has the name of the destination (10%)
	Yes: 10% No: 0%
	Number of unique website users that the destination receives annually (15%)
	More than 50,000 unique web portal users × 100k visitors: 15% 10,000–50,000 unique web portal users × 100k visitors: 5% Less than 10,000 unique web portal users × 100k visitors: 0%
	Security: consideration of gdpr concepts in personal data processing on the tourism web portal (e.G., Adapted to legal texts) (20%)
	Yes: 20% No: 0%
REQUIREMENT 16: TRACEABILITY OF PROMOTIONAL CAMPAIGNS	
The DMO monitors promotional campaigns using data analytics-based solutions	
Indicators	There are reports or tracking dashboards of the promotion campaigns (e.G., Google analytics or facebook ads) (100%)
	Yes: 100% No: 0%
REQUIREMENT 17: TOURIST CARD WITH ADVANCED TECHNOLOGICAL SUPPORT	
The destination has a tourist card to promote its tourism products/services and relies on technology for its management	
Indicators	There are tourist card management tools to update services and record usage data (50%)
	Yes: 50% No: 0%
	Use of at least 1 advanced technological medium (e.G., Mobile card, nfc bracelet, etc.) (50%)
	Yes: 50% No: 0%
REQUIREMENT 18: THE DESIGN OF THE APP HAS BEEN UPDATED IN THE LAST 2 YEARS WITH RESPONSIVE DESIGN CRITERIA	

(continued)

Table 4 (continued)

TECHNOLOGY, AREA 3: TECHNOLOGIES FOR SMART TOURISM MANAGEMENT	
The destination has a tourist application or applications that allow interaction with tourists and the collection of information. The application must have a responsive design and update its content periodically, as well as analyze its performance and activity	
Indicators	The design of the app has been updated in the last 2 years following responsive design criteria (35%)
	Yes, Responsive Design criteria have been followed according to the standard UNE 178502: 35%
	The design has been updated in the last 2 years but does not follow Responsive Design guidelines: 15%
	None of the above: 0%
	The content is updated monthly and has personalized multimedia content based on the visitor's profile (35%)
	Yes: 35% No: 0%
Indicators	Monthly analysis of the activity in the app and its performance, and evidence by means of a report or dashboard (30%)
	Yes: 30% No: 0%
REQUIREMENT 19: SMART SIGNAGE	
Smart tourism signage resources (e.g., QR codes, IoT devices, etc.) implemented at the destination	
Indicators	There is smart sensor-based signage for resources and routes (e.G., Smart panels) (35%)
	Yes: 35% No: 0%
	Integration of smart signage with apps or with the destination tourism application (35%)
	Yes: 35% No: 0%
	Location applications based on iot devices (beacons, nfc, wearables) (30%)
	Yes: 30% No: 0%
REQUIREMENT 20: LEVEL OF TECHNIFICATION OF TOURIST OFFICES	
The technological infrastructure of the Tourist Information Offices is valued, as these spaces are particularly relevant as they constitute a physical point of contact with the visitor that should be exploited to the maximum in two directions: providing the right information to the visitor and receiving as much feedback as possible to understand the visitor's profile	

Table 4 (continued)

TECHNOLOGY, AREA 3: TECHNOLOGIES FOR SMART TOURISM MANAGEMENT	
Indicators	The destination has digital information points for visitors with tourist information such as displays, kiosks, or information terminals (20%)
	At least 1 allows marketing: 20% At least 1 allows user interaction: 10% None of the above: 0%
	The tourist information offices have management software (10%)
	Yes: 10% No: 0%
	Advanced visual and interactive technology is available (interactive touch surfaces, video wall, projectors, etc.) (10%)
	Yes: 10% No: 0%
	Immersive experiences (augmented reality/virtual reality/mixed reality) (10%)
	Yes: 10% No: 0%
	IoT devices: people counting sensors, beacons, etc. (10%)
	Yes: 10% No: 0%
	Content manager (cms) based on semantic webs (10%)
	Yes: 10% No: 0%
	Supply of personalized digital content to plan and personalize the visit (10%)
	Yes: 10% No: 0%
	There is a virtual assistant (chatbot) for tourist information integrated into different channels (web, app, displays) with multi-language capability (10%)
	Yes: 10% No: 0%
	There is interaction with the visitor through the digital guestbook and/or satisfaction surveys in digital format (10%)
	Yes: 10% No: 0%
REQUIREMENT 21: AUTOMATED VISITOR RELATIONSHIP MANAGEMENT	
The need to gather visitor information in order to be able to make informed decisions and facilitate the design and implementation of customized campaigns and other marketing actions	
Indicators	Existence of a customer relationship management (crm) or an equivalent system to manage the relationship with visitors (100%)
	Yes: 100% No: 0%

4 The Technology Pillar in Practice: Standard Recommendations

With a view to offering an idea of the practical implications of applying the technology pillar in tourism destinations that aspire to fully adopt the DTI model, this section sets out, by area of action, some of the most common recommendations made to destinations after the diagnosis phase. Therefore, the following pages pursue to illustrate and guide DMOs when implementing the DTI model.

4.1 Main Recommendations, Area 1

Area 1 relates to technologies applied to governance, therefore, the most common recommendations refer to the strategic planning and Smart projects being developed in the destination, as well as the incorporation and continuous improvement of technological developments related to security and transparency, which allow for a more efficient destination governance and better communication between tourists, residents, and local administration (Table 5).

4.2 Main Recommendations, Area 2

In area 2, Technological infrastructures and connectivity, the recommendations focus on improving connectivity, both to fixed and mobile networks, as this is the basis for the development of different technologies implemented. It also contains recommendations regarding the availability of the Wi-Fi service, both in points of

Table 5 Examples of recommendations of technology pillar in the area of action 1

AREA 1: TECHNOLOGIES APPLIED TO GOVERNANCE
REQ. 1: STRATEGIC PLANNING AND SMART PROJECTS (CITY/ISLAND/LAND) IN THE DESTINATION
<i>Creation of a Smart Strategic Plan for the destination</i>
It is recommended to implement a Smart Strategic Plan that recognizes and integrates the existing strategic plans, strategies, and/or Smart projects in the destination. This document should be presented as a planning tool with the following objectives:
<ul style="list-style-type: none"> • Awareness of the current situation and diagnosis of those municipal services that have operational responsibilities in the field of smart cities and technological innovation • Definition of strategic lines that play a key role in improving environmental and economic sustainability and the citizens' quality of life (social sustainability) • Creation of a roadmap with the projects and actions that will govern the transformation toward a smart city and that will allow the application of a new management model (DTI)
The Smart Strategic Plan should ultimately serve as a guide to coordinate, integrate, and align all those actions initiated, ongoing, or future development in the field of technological innovation
REQ. 3: SMART DEVELOPMENT IN THE DESTINATION

Table 5 (continued)

AREA 1: TECHNOLOGIES APPLIED TO GOVERNANCE
<p><i>Creation of a comprehensive service management platform or destination platform</i></p> <p>As described in the standard UNE 178104:2017. Comprehensive Smart City Management Systems. Interoperability requirements for a Smart City Platform, a Smart City Platform “aims to provide a comprehensive vision, so that its progress contributes to consolidate itself as the city’s nervous system by helping to integrate existing and future vertical systems that serve the needs of cities (mobility, environmental, governance, people, etc.) into a single cross-cutting city system that constitutes a true smart city by functioning as a whole”</p> <p>It is recommended to implement a destination platform that collects, unifies, and systematizes all the information related to the management of the destination’s services in such a way that it is possible to know how they operate. This will equip managers with the necessary tools to make data-driven operational decisions to improve the efficiency of services, while also making it possible to identify shortcomings. It ultimately improves the knowledge of the services and thus enables appropriate corrective action to be taken, if necessary</p>
<p>REQ. 5: OPEN DATA PLATFORM</p> <p><i>Development of an open data portal for the destination that includes tourist information</i></p> <p>The management of data produced/consumed at a destination is an increasingly critical process in a data economy context. To this end, it is recommended to create a tourism web portal to make data publicly available to be freely consulted, redistributed, and reused, while respecting privacy and information security. It is also possible to take advantage of public web portals that facilitate such sharing, such as https://datos.gob.es/</p> <p>It is recommended that a quality open data platform be created, which should contain dynamic data and be in a process of continuous improvement, allowing for the incorporation of databases as their usefulness and availability is detected</p> <p>This portal must include elements of a tourism nature with a minimum score of 3 stars (5stars.info). Examples of the data that can be offered from the future platform are bus stops, list of shops, job offers, population, cultural agenda, districts and sections, buildings, building permit applications, taxi ranks, parks and gardens, traffic cameras, markets, environmental sensors, noise sensors, etc.</p> <p>The ultimate goal should be to facilitate the publication of data at the place where the usual tourism activity takes place, allowing for a better understanding of the visitor and in successive phases allowing for the development of different products and services built on this open data model</p> <p>Key points when implementing a data platform, beyond technological development, are:</p> <ul style="list-style-type: none"> • Maintenance and updating of the platform • Integration with other possible data platforms that are implemented in the destination • Availability of tools that allow the publication of data in open format

tourist interest and in public spaces. Finally, in this area, recommendations are included regarding systems that facilitate the management of public services and tourism services (Table 6).

4.3 Main Recommendations, Area 3

In area 3, aspects related to technologies for Smart Tourism Management are addressed, therefore, frequent recommendations in this area are those related to improving communication tools with tourists, whether the website, tourism applications, through the continuous improvement of offices and tourist information points

Table 6 Examples of recommendations of technology pillar in the area of action 2

AREA 2: TECHNOLOGICAL INFRASTRUCTURES AND CONNECTIVITY
<p>REQ. 8: CONNECTIVITY TO MOBILE NETWORKS AT THE DESTINATION</p> <p><i>Providing the tourism destination with quality mobile network access technologies</i></p> <p>The technological infrastructures implemented in a destination are the basis for the optimal use of new technologies in the development of Smart Tourism Destinations. Tourisms demand connectivity, so it is important that any implementation of technological infrastructures allows for a more efficient management of services and that destination managers have a better understanding of their reality when it comes to making informed and smart decisions</p> <p>At present, the coverage of the telephone network in the destination does not reach adequate levels to ensure the connectivity of the tourist, so it is advisable that the destination has quality access to the mobile network in its territory, at least 4th Generation (4G) mobile phone connection, which will offer an internet connection speed of between 100 Mbps and 200 Mbps</p> <p>Since it is not a direct responsibility of the DMO, it is recommended to promote working groups with operators and competent authorities that request the right to have quality coverage</p>
<p>REQ. 9: CONNECTIVITY IN TOURIST POINTS OF INTEREST (POIS) AND TOURIST INFORMATION OFFICES</p> <p><i>Provision of free Wi-Fi access in the destination's tourist information offices</i></p> <p>Smart destinations must promote digitalization projects for tourist information offices, which can only be carried out if connectivity and Wi-Fi access are adequate and well dimensioned. It is therefore advisable to install free Wi-Fi access points in the destination's tourist information offices, which allow access to information and the downloading of digital content in an agile manner</p> <p>It would be interesting to generate an own captive tourism portal which should highlight links to the tourism portal and any other digital content that is available and of interest to visitors</p>
<p>REQ. 12: SENSORIZATION AND MANAGEMENT SYSTEMS</p> <p><i>Promotion of sensorization projects to improve efficiency in the management of public services</i></p> <p>Smart destinations must have a robust and effective base of technological infrastructures that can provide a cross-cutting response to the services and needs that may be required in any area of the smart destination. It is therefore advisable to promote sensorization implementation and exploitation projects to improve efficiency in the management of public services related to mobility, the use of public transport, or the regulation of surface parking. Some examples include:</p> <ul style="list-style-type: none"> – Creation of a map and installation of sensors or cameras in parking areas to provide information on available spaces through panels at the entrance to the streets with the aim of reducing visitor parking search time – Technological tools and systems that facilitate the movement of vehicles, such as the use of traffic lights or smart panels. These smart panels work with sensors that detect traffic jams and communicate with the traffic light or panel, causing it to change its lights or warn of a street closure to help decongest traffic in the area – Development of a video surveillance system that allows obtaining information on demand and analyzing historical data to identify incidents, trends, and specific patterns, allowing the development of an Urban Surveillance Platform in the future <p>It is also recommended to plan sensorization projects in the following areas related to environmental parameters:</p> <ul style="list-style-type: none"> – Waste collection: implementation of a waste optimization and smart waste collection system – Air quality measurement or water use measurement: implementation of sensors in the distribution network and the implementation of smart containers in homes, in order to supervise and monitor the use of water, detect possible leaks or inappropriate uses and, ultimately, promote the efficient use of these resources – Installation of sensors in public vehicles to measure environmental factors, traffic, service or fleet management

or the provision of technological tools to existing signage. Furthermore, in this area, recommendations are also made to encourage destinations to implement technological tools that improve tourist knowledge or intelligence (Table 7).

Table 7 Examples of recommendations of technology pillar in the area of action 3

AREA 3: TECHNOLOGIES FOR SMART TOURISM MANAGEMENT
REQ. 14: TOURISM INTELLIGENCE (SYSTEMS, TECHNOLOGY, AND TOOLS)
<i>Implementation of systems and/or technologies for data transformation and information analysis</i>
Tourism as a branch of developed economic activity requires information systems that allow structuring useful tools for decision-making by all social agents, public and private, involved in its management
To date, no knowledge management projects or data mining and Big Data systems have been implemented in the destination. Therefore, the adoption of data transformation and information analysis technologies (Big Data, Business Intelligence, Business Analytics) is proposed to enhance the capacity for information management, analysis, and subsequent decision-making. This should begin with an exhaustive analysis of the different sources of information available, depending on the needs and idiosyncrasies of a territory and the priorities set by its managers. Recognizing and fostering the generation of relevant information is of vital importance, so that the destination is able to become the main source of tourism intelligence and knowledge at the local level
The next step will be to implement a system capable of loading, processing, and analyzing information that transforms it into useful, relevant, systematized, and ordered knowledge, in order to put it at the service of the DMO and all destination stakeholders
REQ. 15: TOURISM WEB PORTAL
<i>Centralized and regular updating of the contents of the Tourism web portal</i>
It is important to keep all sections of the tourist web portal updated according to the needs of the destination. This periodic review must be carried out from time to time, trying to change and adapt the contents. The updating process should be simple and quick, and special attention should be paid to the resource inventory, accommodation and restaurant sections, which often have addresses, opening hours and telephone numbers, i.e. information that may change continuously
This, in addition to providing a good image, is also positive for SEO and the digital marketing strategy
REQ. 19: SMART SIGNAGE
<i>Availability of smart signage for resources and elements of tourist interest</i>
Smart signage is one of the digital promotion tools that a smart destination should have, as it facilitates the processes of promotion and interpretation of the resources or places to visit and favors interaction and information of content that might otherwise be difficult to access (videos, photographs, etc.). These signage systems range from beacons (beacons, QR codes, etc.) to smart information screens
QR codes, for example, are an interesting and recommendable signage, which in addition to having a low production and maintenance cost, allows data collection and measuring its use, making it possible to establish strategies based on the data they provide
REQ. 20: LEVEL OF TECHNIFICATION OF TOURIST OFFICES
<i>Promotion of tourism marketing through digital fixed points</i>
Supporting the marketing of tourism experiences and attractions is a key element of a new office model in order to increase the attractiveness of the destination. The office will integrate appropriate technologies to facilitate transactions between businesses and tourists (B2C). To this end, it is advisable to adapt the destination's digital information points to include the possibility of purchasing certain tourism services, i.e. the marketing of tourism products associated with the destination

5 Lessons Learned from the Technology Pillar in the Smart Destinations: Challenges

The application of the DTI methodology, relating to the technology pillar, has facilitated the identification of common patterns and challenges that tourism destination managers must face. Based on the experience accumulated in more than a decade of implementation of the DTI methodology by SEGITTUR, this last section has been prepared in order to share the lessons learned and offer the reader a reflection that facilitates the performance of this pillar, both its diagnostic phase and the implementation of actions that are defined to reinforce the management and technological development of destinations.

The review of the experience acquired made it possible to identify a series of “lessons” that can help tourism managers set priorities for action in their destinations, focusing their efforts on those aspects critical to the success of the smart management strategy proposed in this manual.

Regarding the technology pillar, it is important to consider that given the speed technology evolves, destination managers must address the demands and needs of an increasingly qualified and technologically demanding tourist, who also expects immediate answers and solutions. Nowadays, technology must be present in all phases of the travel cycle and must respond to the challenges posed by the destination in order to increase the competitiveness of the destination and the multiple services provided, beyond the tourism services themselves.

The technology pillar is therefore a cross-cutting pillar (like the innovation pillar, addressed in the previous chapter) and the indicators and requirements proposed to measure and manage the technology pillar affect all areas of a local authority, supra-municipal bodies, and multiple agents of the destination’s tourism network. Its cross-cutting nature is one of the main challenges for tourism managers, since some of the indicators that are assessed do not depend directly on the DMO, and in some cases, such as those related to connectivity, not even on the local entity. In any case, it is the mission of the DMO of the destinations to promote and encourage supra-municipal actions, which establish the bases or supports necessary for the implementation of technological developments essential to optimize the tourism management of the territory.

Derived from this cross-cutting nature and the multiplicity of actors involved, one of the common problems identified in relation to this technology pillar is the lack of structured, more orderly planning that articulates and integrates the different initiatives and technological solutions adopted at the destination. Furthermore, a certain lack of coordination is usually seen between the different areas of the local entity, which implement their own technological solutions without taking into account the work of other areas, generating duplications, overlaps, and unsupervised implementations that ultimately do not achieve the expected results. In this respect, a lack of technical support to the areas in charge of new technologies in small and medium-sized destinations is observed, which should function as supervisory areas and liaison with other areas to facilitate

communication and information regarding the various technological systems implemented in the destination. In order to solve these common problems, the DTI model promotes the creation of an ICT unit/table to ensure that all technological implementations in the destination are agreed upon and have an appropriate and coordinated technical review. The DTI model, through the technology pillar indicators, helps destinations identify dispersed technological developments, appraise their potential, set priorities and define scope, stimulating planned and structured work.

Furthermore, it should be noted that this methodology values not only the implementation of widely used technologies, but also the development of innovative technologies, which require a high level of technical knowledge and financial resources to ensure proper implementation and maintenance. For each solution, scalability, functionalities, and its potential as a solution or improvement to a problem are assessed. In this regard, it has been detected that small destinations are those that generally have less technological maturity and fewer economic resources, core elements for the successful implementation of the different technological solutions proposed in the DTI methodology.

In relation to the assessment by areas of action, it is important to stress that the division by areas responds to a way of organizing the work, and in no case could it be concluded that any of them is more relevant than others. Appropriate development and progress in each of the areas will mean success in the implementation of the DTI model in the technology pillar.

In the area of technologies applied to Governance, one of the most significant lessons learned has been the verification of the effort being made by the local administration to place residents and tourists at the focus of their management, with most destinations having different technological solutions for open government and transparency, such as city or open data platforms. This strategy has also been reinforced in Spain at the state level, through actions such as: the 2015 National Smart Cities Plan; the Digital Agenda for Spain; or the standardization promoted through the formulation of UNE standards referring to the regulation of smart city platforms, such as UNE 178511:2023 (*Guide for the application of the Smart Destination Platform layered model*) or UNE 178104:2017 (*Integrated Smart City Management Systems. Interoperability requirements for a Smart City Platform*). For further information, read chapters “Origin of the Spanish Smart Tourism Destinations Program” and “Methodological Framework of the Spanish Smart Tourism Destinations Model” addressing these issues.

It is also important to note that, in general, there is much room for improvement with regard to the implementation of security-related technological solutions, with cybersecurity, for example, being a commonly underdeveloped element that requires more attention and future development. Another area for improvement is identified in relation to the lack of smart strategic planning: most destinations have smart developments or operational smart projects, but almost none have taken the step toward consolidating a smart plan that integrates these projects and establishes a coordinated long-term strategy. Furthermore, in very few cases a “Technical Office or Data Office” has been created to support smart projects.

Regarding the area of work 2, Technological Infrastructures and Connectivity, destinations face two key challenges. The first challenge relates to connectivity, which is fundamental for the correct development of the technological solutions and implementations identified in the other two areas of the pillar, but over which the DMO has a limited capacity to influence, as they can only have an indirect impact. The second challenge concerns the application of technology to improve the efficiency and management of the environment and public services, such as mobility or cleaning; destinations and managers are aware of the benefits of its use, including cost advantages and improved efficiency, and have greater room for maneuvering, and are making significant efforts to apply sensorization and other alternative systems. In addition to the two challenges indicated above, significant room for improvement is identified in the implementation of management systems for tourism sites. Although the pandemic crisis gave a major boost to the development and implementation of reservation systems, capacity planning and control, and tourism flow management systems, these developments have come to a halt since the pandemic ended, and therefore constitute a future challenge to be faced.

Lastly, regarding the field of Technologies for Smart Tourism Management, area of work 3, two different aspects are analyzed: (1) the implementation of technologies applied to communication with tourists; and (2) tourism knowledge and information. Regarding communication with tourists, it can be seen that destinations dedicate resources and effort to the continuous improvement of the main technological elements of communication with tourists, such as the tourism website, mobile applications, use of social networks, or the use of technological tools in tourist offices. Furthermore, in this area there is an interest and sensitivity to constantly improve, incorporating multiple new communication technologies, or improving marketing elements through the application of technologies. Along these lines, interesting developments have been identified with technological tools (some in beta phase), even in small destinations, illustrating the interest of tourism managers in this area of work.

With regard to the second aspect covered in this area, knowledge and tourist information, there is considerable room for improvement in the application of technology to enhance tourist knowledge and decision-making. In general, destinations do not yet have technological implementations that allow the use of ICTs for data collection and analysis. Despite the important technological advances in this area, the use of technological solutions to achieve greater knowledge of supply and demand is still very incipient in destinations.

In conclusion, and from the experience of the diagnoses carried out in destinations that have adopted the DTI strategic management model, it can be said that in general, technological developments and implementations related to many of the indicators included in the technology pillar have been addressed, highlighting the implementation of technologies to improve communication with tourists at all stages of the travel cycle. However, destinations still need to address the challenge of improving planning and coordination between platforms and technological solutions, as well as fostering the use of technology applied to knowledge management and tourist information. To attain this, it will be essential for destinations to have

qualified personnel capable of providing a strategic vision that integrates new technological developments with existing ones and leads the processes of change inherent to the introduction and adoption of technological innovations.

Appendix

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References

- Almeida-Santana, A., David-Negre, T., & Moreno-Gil, S. (2020). New digital tourism ecosystem: understanding the relationship between information sources and sharing economy platforms. *International Journal of Tourism Cities*, 6(2), 335–345.
- Benckendorff, P., Xiang, Z., & Sheldon, P. J. (2019). *Tourism information technology* (3rd ed.). CABI.
- Boes, K., Buhalis, D., & Inversini, A. (2016). Smart tourism destinations: ecosystems for tourism destination competitiveness. *International Journal of Tourism Cities*, 2(2), 108–124.
- Buhalis, D. (1993). Regional integrated computer information reservation management systems (RICIRMS) as a strategic tool for the small and medium tourism enterprises. *Tourism Management*, 14(5), 366–378.
- Buhalis, D. (2000). Information technology in tourism: past, present and future. *Tourism Recreation Research*, 25(1), 41–58.
- Buhalis, D. (2020). Technology in tourism-from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: a perspective article. *Tourism Review*, 75(1), 267–272.

- Buhalis, D., & Amaranggana, A. (2015). Smart tourism destinations enhancing tourism experience through personalisation of services. In *Information and communication technologies in tourism 2015* (pp. 377–389). Springer.
- Buhalis, D., & Foerste, M. (2015). SoCoMo marketing for travel and tourism: empowering co-creation of value. *Journal of Destination Marketing & Management*, 4(3), 151–161.
- Buhalis, D., Harwood, T., Bogicevic, V., Viglia, G., Beldona, S., & Hofacker, C. (2019). Technological disruptions in services: lessons from tourism and hospitality. *Journal of Service Management*, 30(4), 484–506.
- Buhalis, D., & Karatay, N. (2022). Mixed reality (MR) for generation Z in cultural heritage tourism towards Metaverse. In J. L. Stienmetz, B. Ferrer-Rosell, & D. Massimo (Eds.), *Information and communication technologies in tourism 2022. ENTER 2022*. Springer. https://doi.org/10.1007/978-3-030-94751-4_2
- Buhalis, D., Leung, D., & Lin, M. (2023). Metaverse as a disruptive technology revolutionising tourism management and marketing. *Tourism Management*, 97, 104724. <https://doi.org/10.1016/j.tourman.2023.104724>
- Buhalis, D., Lin, M., & Leung, D. (2022). Metaverse as a driver for hospitality customer experience and value co-creation: implications for hotel and tourism management and marketing. *International Journal of Contemporary Hospitality Management*. <https://doi.org/10.1108/IJCHM-05-2022-0631>
- Buhalis, D., & Michopoulou, E. (2013). Information provision for challenging markets: the case of the accessibility requiring market in the context of tourism. *Information & Management*, 50(5), 229–239.
- Buhalis, D., & Sinarta, Y. (2019). Real-time co-creation and nowness service: lessons from tourism and hospitality. *Journal of Travel & Tourism Marketing*, 36(5), 563–582.
- Buhalis, D., & Volчек, E. (2021). Bridging marketing and big data analytics: The taxonomy of marketing attribution. *International Journal of Information Management*, 56. <https://doi.org/10.1016/j.ijinfomgt.2020.102253>
- Bulchand-Gidumal, J., William, E., O'Connor, P., & Buhalis, D. (2023). Artificial intelligence's impact on hospitality and tourism marketing: exploring key themes and addressing challenges. *Current Issues in Tourism*. <https://doi.org/10.1080/13683500.2023.2229480>
- Del Vecchio, P., Mele, G., Ndou, V., & Secundo, G. (2018). Open innovation and social big data for sustainability: evidence from the tourism industry. *Sustainability*, 10(9), 1–15.
- Dexeus, C. R. (2018). The deepening effects of the digital revolution. In E. Fayos-Solà & C. Cooper (Eds.), *The future of tourism: Innovation and sustainability* (pp. 43–69). Springer, State-Owned Enterprise for the Management of Innovation and Tourism Technologies (SEGITTUR).
- Gössling, S. (2016). Tourism, information technology and sustainability: an exploratory review. *Journal of Sustainable Tourism*, 25(7), 1024–1041.
- Gretzel, U. (2011). Intelligent systems in tourism. A social science perspective. *Annals of Tourism Research*, 38(3), 757–779.
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: foundations and developments. *Electronic Markets*, 25(3), 179–188.
- Hays, S., Page, S. J., & Buhalis, D. (2013). Social media as a destination marketing tool: its use by national tourism organisations. *Current Issues in Tourism*, 16(3), 211–239.
- Inkpen, G. (1998). *Information technology for travel and tourism* (2nd ed.). Addison Wesley Longman.
- Inversini, A., & Buhalis, D. (2009). Information convergence in the long tail: the case of tourism destination information. In W. Hopken, U. Gretzel, & R. Law (Eds.), *Information and communication technologies in tourism 2009—Proceedings of the international conference in Amsterdam, Netherland* (pp. 381–392). Springer.
- Ivanov, S., & Webster, C. (2019). *Robots, artificial intelligence and service automation in travel. Tourism and hospitality*. Emerald.
- Ivars-Baidal, J., Celdrán-Bernabeu, M. A., Femina-Serra, F., Perles-Ribes, J. F., & Vera-Rebollo, J. F. (2023). Smart city and smart destination planning: Examining the instruments and perceived impacts in Spain. *Cities*, 137, 104266.

- Kalia, P., Mladenović, D., & Acevedo-Duque, Á. (2022). Decoding the trends and the emerging research directions of digital tourism in the last three decades: a bibliometric analysis. *Sage Open*, 12(4).
- Kim, H. H., & Law, R. (2015). Smartphones in tourism and hospitality marketing: a literature review. *Journal of Travel & Tourism Marketing*, 32(6), 692–711.
- Law, R., Buhalis, D., & Cobanoglu, C. (2014). Progress on information and communication technologies in hospitality and tourism. *International Journal of Contemporary Hospitality Management*, 26(5), 727–750.
- Mandic, A., & Garbin-Pranicevic, D. (2019). Progress on the role of ICTs in establishing destination appeal. Implications for smart tourism destination development. *Journal of Hospitality and Tourism Technology*, 10(4), 791–813.
- Mistilis, N., Buhalis, D., & Gretzel, U. (2014). Future eDestination marketing: perspective of an Australian tourism stakeholder network. *Journal of Travel Research*, 53(6), 778–790.
- OECD. (2020). OECD Digital Economy Outlook 2020. Available at: https://www.sub-rei.gob.cl/docs/defaultsource/estudios-y-documentos/otros-documentos/oecd-digital.pdf?sfvrsn=42c639c6_1
- OECD. (2022). Manual de la OCDE sobre política de competencia en la era digital [Handbook on Competition Policy in the Digital Age.]. Available at: <https://www.oecd.org/daf/competition-policy-in-the-digital-age>
- O'Connor, P. (1999). *Tourism and hospitality electronic distribution and information technology*. CAB International.
- Pan, B., & Fesenmaier, D. R. (2006). Online information search: vacation planning process. *Annals of Tourism Research*, 33(3), 809–832.
- Paraskevas, A., Katsogridakis, I., Law, R., & Buhalis, D. (2011). Search engine marketing: transforming search engines to hotel distribution channels. *Cornell Hospitality Quarterly*, 52(2), 200–208.
- Park, H., Lee, M., & Back, K. J. (2023). A critical review of technology-driven service innovation in hospitality and tourism: current discussions and future research agendas. *International Journal of Contemporary Hospitality Management*, 35(12), 4502–4534.
- Rodrigues, V., Eusebio, C., & y Breda, Z. (2023). Enhancing sustainable development through tourism digitalization: a systematic literature review. *Information Technology and Tourism*, 25, 13–45.
- Sheldon, P. (1993). Destination information systems. *Annals of Tourism Research*, 20(4), 633–649.
- Sheldon, P. (1997). *Information technologies for tourism*. CAB.
- Sigala, M. (2003). The information and communication technologies productivity impact on the UK hotel sector. *International Journal of Operations & Production Management*, 23(10), 1224–1245.
- Soliman, M., Cardoso, L., Gorette-Feijó de Almeida, G., Araújo, A. F., & Araújo-Vila, N. (2021). Mapping smart experiences in tourism: a bibliometric approach. *European Journal of Tourism Research*, 28, 2809.
- Trunfio, M., & Campana, M. (2019). Drivers and emerging innovations in knowledge-based destinations: Towards a research agenda. *Journal of Destination Marketing and Management*, 14, 100370.
- Tussyadiah, I. P., Jung, T. H., & Tom Dieck, M. C. (2018). Embodiment of wearable augmented reality technology in tourism experiences. *Journal of Travel Research*, 57(5), 597–611.
- Wang, D., Park, S., & Fesenmaier, D. R. (2012). The role of smartphones in mediating the touristic experience. *Journal of Travel Research*, 51(4), 371–387.
- Watkins, M., Ziyadin, S., Imatayeva, A., Kurmangalieva, A., & Blembayeva, A. (2018). Digital tourism as a key factor in the development of the economy. *Economic Annals -XXI*, 169(1/2), 40–45.
- Werthner, H., & Klein, S. (1999). *Information technology and tourism: A challenging relationship*. Springer.
- Werthner, H., & Ricci, F. (2004). E-commerce and tourism. *Communications of the ACM*, 47(12), 101–105.

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The Pillar of Sustainability in the Spanish Smart Tourism Destination (DTI) Model



SEGITTUR and Lidia Andrades

Abstract Being sustainable is a priority for any tourism destination aiming to be competitive. The chapter reviews the sustainability concept, addressing the main challenges that DMOs must face to achieve it. It also explains how the Spanish Smart Tourism Destination Model responds to these challenges, with a methodology based on a process of continuous enhancement, defining and measuring sustainability requirements in destinations, and providing recommendations for improvement. Due to the great relevance of the sustainable tourism management of destinations, environmental, economic and social impacts, this pillar has the greatest weight of all the pillars of the DTI Model, with its requirements representing about 40% of the total of the model. This pillar integrates four key areas of action: Tourism sustainability managerial tools; Conservation, recovery and enhancement of cultural heritage; Conservation and enhancement of the environment and, Socio-economic development and circular economy. Finally, by areas of action, this chapter details the requirements and indicators of the sustainability pillar together with the main recommendations, associated with each of the areas of the pillar, useful for destinations implementing the DTI model in terms of sustainability.

1 Introduction

As part of the first block of this manual, a description has been provided of how tourism activity is a global and social phenomenon that serves as a driving force for local economies (Balaguer & Cantavella-Jordá, 2002; Mérida & Golpe, 2016;

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Tugcu, 2014; Uysal et al., 2016). Even in times of crisis, it has been proven that tourism activity serves as an engine that boosts economic recovery and reinforces the resilience of the destination (Dogru & Bulut, 2018; Elliot et al., 2011). Its transversal and multidimensional nature, encompassing multiple sectors and agents in its activity, makes tourism one of the most dynamic sectors of socio-economic progress (Brida et al., 2016; De Vita & Kyaw, 2016; UN, 2022). Beyond the purely economic benefits, it has also been recognised how the cultural exchange between residents and visitors also generates social benefits (García-Zarza, 2002).

However, the excessive growth of tourism activity in recent decades has been the subject of significant debate, as tourism development causes direct negative environmental and socio-economic impacts (Fernández-Alcantud et al., 2016). On account of this unprecedented growth and the associated externalities, a number of sectors have called for the need to review and redesign processes to make them more sustainable (OECD, 2020; Saarinen & Rogerson, 2013; WEF, 2022). Professor Rachel Dodds discusses this issue in the box below.

Considerations for Achieving More Sustainable Tourism

With the continued increase in tourism demand, as well as the global recognition that many destinations are suffering from too many tourists, there is no longer any debate about the need for more sustainable tourism. Many governments are now highlighting sustainability in their master plans and policies which is encouraging, however, along with the advances in thought, there are still key challenges to consider.

More and more destinations and tourism bodies recognise that all stakeholders must participate in tourism, aligning their interests and coordinating their efforts. The challenge is to consider and acknowledge that inevitably the power of one dominates over others.

There is also a positive acknowledgement of the need for data-driven decision-making in destinations. The challenge is that there are few destinations measuring success or competitiveness using sustainability-based principles rather than the traditional metric of tourism arrivals and there is also little actual collection of sustainability-based metrics. Destinations who wish to shift are challenged in that there are hundreds of indicators proposed to measure sustainability rather than the current singular universally comparable metric of arrival numbers.

The COVID-19 pandemic shifted the focus of Destination Marketing Organizations to Destination Management Organization as they played the role of liaison between the government and stakeholders on the ground. Post pandemic, these organizations must now refocus their attention from solely promoting tourism to less economic-driven issues such as quality of life and actually managing and mitigating tourism impacts. The challenge is that the organization and funding structure for these organizations is often based on a model contradicting this need.

As of late, many regional and national agencies are acknowledging and supporting the role of tourism as a development tool. The challenge is that few regional and national organizations support local actions, especially local efforts to restrain tourism growth. There is generally a reluctance to take any measures which might reduce the appeal and/or the actual volume of tourism.

Tourism can become more sustainable, but the focus must shift from an end goal to it being a process that is ongoing. Tourism's aim should be to ensure the destination is better for all rather than the few. It is fundamentally unsustainable to continue to focus on continued growth and profit under the guise of sustainability.

—Dr. Rachel Dodds,
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of the Hospitality and Tourism Research Institute.
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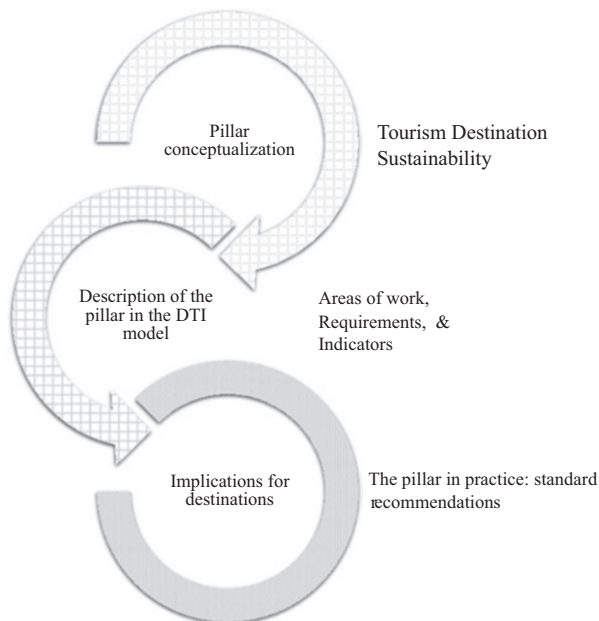
There is now a unanimous agreement that sustainability should be an objective that is taken on board by citizens and integrated into all areas of the tourism strategy (Aladag et al., 2020; Arbolino et al., 2021; Gössling & Higham, 2021; Santos et al., 2022). Sustainability is considered the only possible way of ensuring that tourism activity strikes a positive economic, social, cultural and environmental balance, whilst ensuring that the tourism industry remains competitive, resilient, inclusive and responsible as regards the planet as a whole (UNWTO, 1999; OECD, 2021).

Historically, however, the sector has almost exclusively pursued ever-increasing tourist arrivals and income, ignoring the carrying capacity of the destination. Tourism carrying capacity is an indicator of the destination's limit when it comes to accommodating tourists, ensuring that they have a satisfactory experience without compromising natural heritage or impairing the quality of life of local residents (Coccosis & Mexa, 2004; O'Reilly 1986). Therefore, the carrying capacity of tourism destinations represents the "threshold" beyond which tourism activity in the destination becomes unsustainable and harmful. Interpreted as such, the carrying capacity of a destination sets out the threshold number of tourists that should be welcomed and that should not be exceeded. However, in practice, the carrying capacity of a destination can be scaled in the medium and long term and increased to a certain extent. The technical carrying capacity can be expanded by applying good management and planning infrastructure investments to increase the capacity to welcome visitors to the destination, for example by improving waste treatment or water management. A destination's carrying capacity can also be optimised by harnessing the opportunities offered by the digitisation of the destination to optimise the management of the tourist inflows (Coccosis, 2022). Despite this, strategic sustainable management is relatively uncommon (Torres-Delgado & Saarinen, 2014), and the promotion of sustainable and responsible tourism activities remains one of the main challenges facing the tourism sector at present (Bulter, 2019).

Against this backdrop, the Smart Destination Management (DTI) Model considers sustainability as one of its main strategic pillars, offering destinations a guide that helps them plan and structure the different strategies and actions to be undertaken to genuinely manage tourism activity in the destination in a sustainable way (UNWTO, 2017, 2018).

Smart Destinations as a concept enshrine sustainability as a fundamental pillar of any destination that claims to be "smart" and competitive (WEF, 2019), pursuing a sustainable tourism management model, based on knowledge and tourism intelligence, generated through technological and innovative tools applied to the decision-making process in destinations. The implementation of this model helps destinations to improve the way in which they use their resources and to optimise their tourism carrying capacity, minimising the negative impacts caused by tourism (WTTC, 2020).

Fig. 1 Chapter outline



As will be seen over the course of this chapter, sustainable destination management necessarily involves structuring, reconciling and aligning the destination's interests in environmental, cultural, social and economic spheres, and to this end, in recent years technology has assumed a leading role.

It offers an approach to the concept of sustainability (Fig. 1), which has gained depth and breadth over time. This conceptualisation will subsequently help to understand the four areas of action into which the sustainability pillar of the smart destination strategic management model is divided. After describing these areas, the chapter then goes on to present, for each of these areas of action, the requirements and indicators that the Model sets out in each case, as well as offering examples of the recommendations made to destinations to help them meet the requirements defined for each area.

Finally, the chapter concludes with a reflection by the SEGITTUR team on the main lessons learned during the 10-year period in which the DTI Model has been implemented with the destinations. As in the case of the other chapters, readers can also find the references cited in the text at the end of the chapter, offering them the opportunity to explore the topics covered in greater detail if they wish.

2 Approach to the Concept of Sustainability

Bearing its universality and relevance in mind, the definition of sustainable tourism proposed by the UNWTO (2002, 2013) provides a good starting point from which to approach what the sustainable management of tourism destinations entails. The UNWTO describes sustainable tourism as “tourism that meets the current needs of regions and tourists, protecting and improving future opportunities. It must also be focused on managing resources to meet economic, social and aesthetic needs, respecting cultural integrity, essential ecological processes, biological diversity and life support systems”. This definition provides the reader with an idea of the scope and complexity involved when it comes to the sustainable management of tourism destinations; it entails an extensive task that goes far beyond environmental conservation and includes the management of cultural, social and economic aspects of the destination. With this in mind, sustainable destination management not only pursues the preservation of environmental heritage but also tangible and intangible cultural heritage; the social and economic development of the destination; improving the quality of life of the local community etc.

In short, the paradigm of sustainable development lies in ensuring a balance between economic prosperity, environmental preservation and socio-cultural sustainability, in order to build a future based on fairer, more diverse tourism activity that respects both the territory and its inhabitants (SEGITTUR, 2015).

In the case of tourism destinations, to achieve this balance, it will be critical that both managers and stakeholders operating in the destination assume a series of commitments and measures in energy, environmental, cultural, social and economic plans, making it possible to achieve the different objectives associated with the effective sustainability of tourism activity: improving the quality of life of local residents; enhancing the visitor experience; preserving the destination’s environmental, patrimonial and cultural resources etc. To identify and prioritise the measures to be adopted, sustainability must be analysed from multiple perspectives complementary to the environmental viewpoint: the perspective of local businesspeople, who need economically sustainable business models; the cultural perspective, which requires strategies to be defined that facilitate the immersion of the visitor in the local traditions and history without negatively influencing them and the social perspective, residents who will take a stance against tourism activity if they do not notice that these activities benefit them (SEGITTUR, 2015). With this in mind, tourism sustainability is a cross-cutting objective for the tourism destination and achieving it involves getting all stakeholders who participate in the provision of tourism services involved, aligning their interests and coordinating their efforts.

Figure 1 illustrates the series of objectives to be achieved for a tourism destination to be truly sustainable, grouping them into four areas of action: social, environmental, economic and cultural. It also includes the concept of institutional sustainability (Ritchie & Crouch, 2003), bearing in mind that sustainable

management is a factor in the strategic management of destinations that require continuity to bear fruit as well as the firm commitment of all the stakeholders involved to transcend political cycles and agree on objectives that represent the interests of all stakeholders affected by tourism activity. As a result, the sustainability plans defined do not lose validity after each political cycle and serve a long-term purpose.

As can be seen in Fig. 2, there are different areas of action involved in the management of the sustainability of a tourism destination, to which end coordination is required. These areas are interrelated, meaning that the achievement of each of their objectives is linked to the accomplishment of the rest. Each of the areas (social, environmental, cultural and economic), constitutes in themselves very extensive lines of work that need to be defined, structured and broken down into specific objectives, making the work achievable (García-Moreno & Fernández-Alcantud, 2022).

In all the processes, the adoption and use of technology leverage the efforts done by the DMOs on sustainable management, fostering the outcomes of the implemented actions. It is also necessary to identify and assess the existing interdependencies between the objectives set in each area (Fig. 3).

In relation to environmental and cultural preservation, an intergenerational perspective must be adopted when establishing the objectives and actions required to conserve natural and cultural heritage, safeguarding biodiversity, ensuring the rational use of resources, protecting cultural identity in the territory and, ultimately, avoiding the impairment of cultural or environmental heritage due to tourism activity. It is about minimising the negative impacts on the environment, managing waste, avoiding the gradual deterioration of renewable resources, minimising water and air pollution, noise pollution, protecting wildlife and plant life, promoting reuse and recycling etc. Along these lines, efforts will be made to preserve cultural heritage, raise awareness of it, make it accessible to both residents and tourists, improve the way in which it is interpreted etc.

When it comes to the social aspect of sustainability, efforts will be made to ensure that tourism contributes to local development, promoting the well-being of the host community to encourage social cohesion, fostering quality employment, stimulating the fair distribution of resources, expanding the cultural offer accessible to residents and tourists, setting out appropriate health and safety standards and generally improving the quality of life of the local population, involving them in the management of the destination.

As regards the economic sphere, efforts will concentrate on ensuring that tourism activity and the companies organising tourism activities are economically feasible, whilst adequately satisfying the demand. Also in this area, priority must be given to economic development structured around the principles of the circular economy, in such a way that negative environmental impacts are minimised and the social well-being of residents is fostered.

Having reviewed the concept of sustainable management, the reader will now understand that sustainable tourism development cannot be identified as a utopian state, but rather as part of a process of qualitative change that guides the tourism development of a territory towards specific, measurable, achievable, relevant and

SUSTAINABLE TOURISM MANAGEMENT

INSTITUTIONAL SUSTAINABILITY / POLITICAL WILL

Destination governance based on public-private-citizen cooperation: control policy in relation to local management; political participation; local planning policy; political support at all levels of government

CULTURAL SUSTAINABILITY	ENVIRONMENTAL SUSTAINABILITY	SOCIAL SUSTAINABILITY	ECONOMIC SUSTAINABILITY
<p>Architecture and buildings</p> <p>Cultural management of the destination (management and maintenance plan)</p> <p>Sociocultural production and impact on identity, diversity, pride and belonging</p> <p>Interpretation of heritage and cultural education (tourists, residents and tourism employees)</p>	<p>Territorial management to mitigate the negative impacts of tourism activity:</p> <p>Measurement of environmental impacts caused by tourism</p> <p>Level of deterioration suffered by renewable resources (air and water quality, noise pollution, waste management, etc.)</p> <p>Level of ecosystem degradation/ Destruction</p> <p>Level of destruction caused to wildlife, native plant life and appeal of the destination</p> <p>Reduction of the carbon footprint</p> <p>Biodiversity preservation</p> <p>Reuse and recycling ratios</p> <p>Healthy living conditions for local residents</p>	<p>Contribution of tourism to local development:</p> <p>Community well-being: social cohesion (visible changes in the social structure, percentage of local entrepreneurs, etc.)</p> <p>Distribution of resources and power</p> <p>Host community, residents and stakeholders (consistency of stakeholders, local population/visitor relations, traditional activities undertaken by residents, attitudes towards tourism development)</p> <p>Cultural attractions, preservation of community resources</p> <p>Health and safety in the territory</p> <p>Positive tourist experience</p> <p>Quality of life in general</p>	<p>Local prosperity and economic well-being:</p> <p>Quality employment</p> <p>Working conditions and type of companies offering employment</p> <p>Distribution of income</p> <p>Capital leaks and capital connections</p> <p>Formation of capital in the community and investments</p> <p>Economic feasibility</p> <p>Nature of demand</p> <p>Visitor satisfaction</p> <p>Local government revenue generated by tourism</p>

TECHNOLOGICAL SUPPORT TO SUSTAINABILITY

<p>Precision and efficiency in relation to data collection, efficient processing, smart analysis and exchange of tourist information</p>	<p>Uptake and use of new and low impact technologies</p>	<p>General and competitive best practices</p>
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Fig. 2 Spheres of action in the sustainable management of tourism destinations. Source: By the authors, inspired by Choi and Sirakaya (2006)

Preservation of biodiversity and environmental resources,
 from an intergenerational perspective; Rational use of resources;
 Protection of the territory's cultural identity; Conservation of unique cultural heritage



Promoting economic development based on the principles of circular economy: Economic feasibility of tourism activity in the destination; Feasibility of tourism companies; Tourist satisfaction; Fair distribution of burdens/benefits generated by tourism activity; Resident well-being.

The benefits generated by tourism activity are felt by the local population: rooting in the territory; creating employment opportunities; boosting other related economic sectors; enhancing local identity; ensuring resident well-being and quality of life, etc.

Fig. 3 Sustainable tourism management: spheres of action. Source: Prepared based on Ivars-Baidal's Sustainable Tourism Conceptual Model (2001, p. 11)

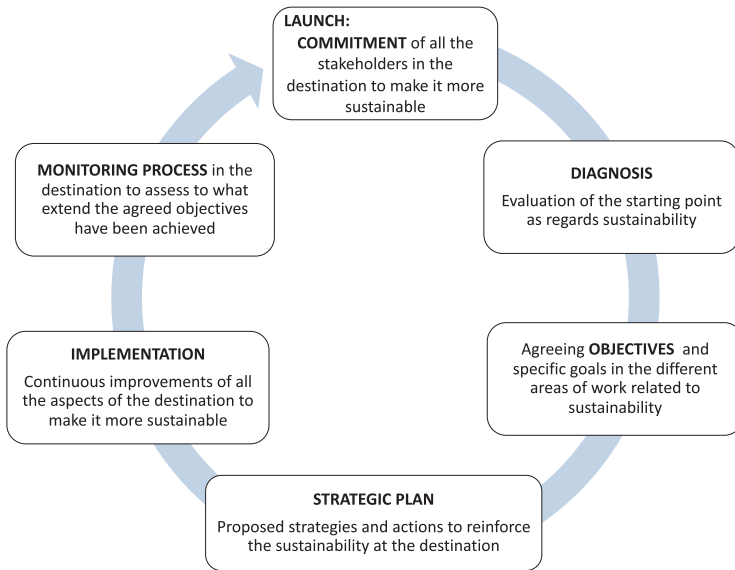


Fig. 4 The process of towards sustainable destination management. Source: By the authors, inspired by the Responsible Tourism Institute (2017, p.5)

time-based objectives. The sustainable tourism management of a destination therefore involves undertaking rigorous strategic planning which, by diagnosing the specific situation of the destination, makes it possible to define the path to be followed in the short, medium and long term, to ensure that the tourism activity in the destination is sustainable.

Bearing in mind that the path towards sustainability is a dynamic and continuous process, a series of structured steps can be established to achieve this goal; these steps are the same phases followed by any strategic planning and management process (Fig. 4). This process, as described in chapter “Methodological Framework of the Spanish Smart Tourism Destinations Model”, entails an initial diagnosis, allowing managers to identify areas for improvement, define the priority objectives of the destination to this end, define strategies and a work plan and seek the commitment of all the stakeholders involved for its implementation.

Taking this approach, the sustainable management of the destination is the cross-cutting tool to be adopted to guarantee the continued provision of quality tourism services in the future, ensuring the satisfaction and well-being of both tourists and residents. Furthermore, as achieving the cross-cutting objective of sustainability must be reflected in the achievement of specific and different objectives in terms of economic, social, cultural and environmental matters, its achievement is also linked to the need to address these matters systematically, through tourism policies that remain in place over time and supported by a comprehensive tourism knowledge

system that makes it possible to monitor the actions undertaken and assess their effectiveness. All these challenges associated with the sustainable management of tourism destinations have been considered in the DTI Model, shaping the areas of work, requirements and indicators reflected in Sect. 4 of this chapter.

3 The Management of Tourism Sustainability in Spain: Challenges

The DTI Model allocates particular weight to sustainability, bearing in mind that sustainable management and the rational use of available resources inevitably shape the identity of any smart managed tourism destination. Furthermore, the management of tourism destinations in terms of sustainability provides destinations with competitive and comparative advantages in the short, medium and long term.

However, going beyond the work undertaken by SEGITTUR over the past decade, defining and validating the smart destination work methodology, the promotion of sustainable and responsible tourism activities is currently the main challenge facing destination Spain. The goal is to promote the migration of the traditional tourism management model towards a truly sustainable model, consolidating the desired shift in the approach to tourism management. With this in mind, Spain has deployed different strategic plans, aligned with the 2030 Agenda (Red Española del Pacto Mundial de Naciones Unidas, 2019) and the Sustainable Development Goals (UN, 2015).

Worth particular mention in relation to these plans is the Transformation and Resilience Recovery Plan (Gobierno de España, 2021), which seeks to channel the EU funds allocated to Spain to the recovery of the tourism sector following the COVID-19 pandemic, making the commitment to the economic reactivation of tourism businesses affected by the pandemic, enhancing their economic feasibility and resilience in the face of future crises and ultimately to build a more sustainable future; as well as the Sustainable Tourism Strategy 2030 (SET, 2021), which aims to make the system profitable by promoting its competitive transformation and the sustainable growth of tourism destinations. With these goals in mind, the strategy defined is structured around tourism intelligence, innovation and collaborative governance, getting people, companies and territories involved to further diversify today's tourism attractions and seasonally adjust tourism demand.

Generally speaking, the principles that served as inspiration for the 2030 Sustainable Tourism Strategy are: (1) Socio-economic growth, fostered by improving the competitiveness and profitability of the sector, making the commitment to quality and speeding up the digital transformation process; (2) Preservation of natural and cultural resources, bearing in mind that the conservation of the cultural and natural heritage is critical to maintaining the position and attractiveness of Spain's tourism attractions; (3) Social benefit, seeking the fair and efficient distribution of benefits in the sector, whilst looking to respond to problems including the

depopulation of rural areas in Spain and (4) General implementation of a participatory destination governance model, coordinating the necessary mechanisms for effective cooperation between the State and the competent authorities at all levels.

As the reader gains in-depth knowledge of the objectives and scope of the DTI Model over the course of this manual, they will find that it proposes and defines the guidelines contained in the master document that establishes the strategic guides for destination Spain (2030 Sustainable Tourism Strategy), facilitating the operationality of its objectives and providing destinations with the necessary instruments to implement them: specific requirements, indicators for monitoring compliance with the requirements, indications and recommendations for implementing the required actions and making the destination sustainable, competitive and smart.

As explained in previous chapters, a smart destination is an innovative tourism destination based on a state-of-the-art technological infrastructure that guarantees the sustainable development of tourism areas, promoting universal access, enabling visitors to integrate and interact with their surroundings, raising the quality of their experience at the destination, and improving residents' quality of life. With this in mind, the prioritisation of Sustainability is an inherent part of the smart destination concept, serving as a backbone of the Model and addressing it in all its dimensions: cultural, environmental, social and economic.

Furthermore, the smart destination methodology sets out a management model for destinations that, bearing in mind the singularity and differentiating features of destinations, is structured around the transversality of tourism activity, aligning objectives, interests and offering guidelines to coordinate the work of the different stakeholders involved in the provision of services to tourists. The sustainability pillar of the smart destination methodology proposes standards for destinations to adopt a sustainable tourism management model, where carrying capacity, thresholds, circular economy, efficient use of resources, the fight against climate change, the conservation of biodiversity, the promotion of culture, sustainable mobility and accessibility, the reactivation of the local economy, support for businesses, local producers and tourism companies etc., are the lines of action that guide the daily management of destinations and therefore shape the sustainability strategy of destinations.

Going beyond the smart destination methodology, bearing in mind the limitations and practical difficulties that the transition from the traditional management model to the sustainable model entails, the Smart Tourism Destination Network (Red DTI) was created, serving as a support group and guide for the planning, implementation and monitoring of sustainability in destinations. As it is explained in chapter "The Spanish Smart Tourism Destinations Network: The Instrument for Transferring and Stimulating the Adoption of National Tourism Policies", the aim of the DTI network is to assist destinations in the performance of essential tasks to ensure that sustainability goes from being a declaration of intent to an effective reality.

The next section provides a detailed description of the pillar of sustainability of the DTI Model, with its corresponding requirements and indicators.

4 The Pillar of Sustainability in the Strategic DTI Model

Based on the definition provided of what being a sustainable tourism destination is all about, the DTI Model sets out four areas of action in relation to the pillar dedicated to sustainability management: (1) Management of tourism sustainability; (2) Conservation, improvement and recovery of cultural heritage; (3) Conservation and improvement of the environment and (4) Socioeconomic development and circular economy.

In relation to these areas, the smart destination methodology provides destinations with a basis for defining their own tourism development strategy, guaranteeing the destination's competitiveness through a continuous and structured improvement process.

At present, these four areas of action consist of 38 requirements to be met by the destinations, representing 39% of the total requirements included in the DTI model. Achieving these requirements is assessed based on 116 Indicators, which in turn represent 44.5% of the total indicators considered in the smart destination model. The significant weight accounted for by the sustainability requirements and indicators in the smart destination model as a whole, 39% and 44.5%, respectively, offer managers an idea of the gravitas of sustainability when it comes to making the management of a tourism destination "smart".

The first area of action is dedicated to the comprehensive management of sustainability in the destination. The purpose of this area of action is to establish a framework that facilitates and promotes the definition and development of actions in the other three areas of work: (1) Conservation, improvement and recovery of cultural heritage; (2) Environmental conservation and, (3) Socio-economic development and circular economy (SEGITTUR, 2019, 2022a, 2022b, 2022c). Therefore, as part of this area labelled as "Management of tourism sustainability", the destination is expected to define tourism planning in line with the Sustainable Developmental Goals (SDGs) as well as identify a series of sustainability indicators making it possible to monitor the progress made by the destination, ascertain whether the planned objectives are being met and introduce the corresponding corrective actions in case of significant deviations. As part of the strategic planning of the destination, particular attention must be paid to existing legislation for protecting heritage, territorial planning and management, as well as mobility management in the territory. This strategic planning will also set out a marketing plan for the destination that considers sustainability as its guiding principle, prioritising the development of tourism products and services that sustainably put in value resources and also seek to reduce the seasonality of tourism activity, distributing its impact more evenly throughout the year. To this end, priority will be given to the design of innovative tourism products that break with this seasonality, promote visitor interaction in the destination and/or serve to raise awareness amongst tourists and residents alike of the need to adopt behaviours that are respectful of the environment. Professor Sara Dolnicar discusses this issue in the box below.

Enticing Tourists to Behave in Environmentally Friendly Ways Is Crucial

Enticing tourists to behave in environmentally friendly ways is not trivial. Although tourists like to think of themselves as environmentally sustainable (Juvan & Dolnicar, 2014) and—when asked—report making environmentally sustainable vacation decisions (Karlsson & Dolnicar, 2016), they rarely do. Reasons include that vacations are characterised by the pursuit of pleasure, so tourists forgive themselves for not being quite as environmentally sustainable as usual; and simple infrastructure limitations, such as the availability of recycling bins. Despite these challenges, several studies have demonstrated how theory-informed behaviour change interventions can successfully entice pro-environmental tourist behaviour: asking hotel guests to commit to towel reuse and giving them a pin to publicly signal their commitment increases towel reuse from 24 to 35% (Baca-Motes et al., 2012); telling hotel guests how many other guests in that room reused their towel pushed towel reuse to 49% (Goldstein et al., 2008); reducing the plate size at hotel buffets by 3 cm decreases the amount of uneaten food left behind by tourists by 20% (Kallbekken & Sælen, 2013); a stamp collection game reduces uneaten food left behind by families at a hotel buffet by 34% (Dolnicar et al., 2020); showing tourists in real-time how much water they use in the shower reduces energy use for hot water heating by 11% (Tiefenbeck et al., 2019); showing senior travellers a video about the climate challenges of future generations increases online booking of low-emissions holidays (Araña & León, 2016); sharing with guests the savings from waived daily hotel room cleans reduces room cleaning by 42% (Dolnicar et al., 2019); and changing the default from automatic daily cleaning to free cleaning upon request reduces room cleaning by 63% (Knezevic Cvelbar et al., 2021). Destinations and tourism businesses have many tools they can use to entice tourists to behave in more environmentally sustainable ways. It is time for them to embrace and deploy them.

—Sara Dolnicar, Ph.D.

Professor in the Tourism Department at UQ Business School,
The University of Queensland, Australia

Finally, within this area of work, destinations must promote the commitment of the private tourism sector to sustainability, reflected in the form of economic support, in such a way that tourism spending contributes to the sustainability of the destination.

The other three areas of action pursue more bounded and specific objectives. Action area 2, “Conservation, improvement and recovery of cultural heritage”, for example has been structured in such a way as to ensure that destinations define strategies to safeguard, through protection figures and related action plans, cultural heritage, landscape, local culture etc.

The third area of action, “Conservation and improvement of the environment” aims to manage environmental resources sustainably, ensuring the quality of air and water, avoiding noise pollution, ensuring energy efficiency and adaptation to climate change. The sustainable management of waste in the destination also falls under this working area.

Finally, “Socio-economic development and circular economy” addresses actions linked to the economic and social aspects of sustainability. Actions including the protection of the local economy and the promotion of zero-km-products, local tourism and responsible purchases fall under this area. Linked to the marketing of the destination addressed in area 1, area of action4 is also dedicated to the

diversification of the destination's attractions, its position and segmentation, with a view to reducing seasonality, and with it the precariousness and instability of employment in the sector, generating fair employment opportunities. Also, in line with area of action 1, efforts are being made in this area to promote programmes to redistribute the benefits and burdens generated by tourism. Actions in this area also require coordination between the Destination Management Organizations (DMOs) and training institutions in the destination to design and deliver training activities and programmes on sustainable development and management. Finally, this area also deals with all the necessary actions for guaranteeing the health, safety and resilience of the destination in the face of crises.

In short, as part of the framework proposed by the DTI Model, making tourism destinations sustainable entails ensuring that economic activities are feasible in the long term, reporting benefits to all agents and ensuring these are distributed efficiently and fairly, offering stable employment opportunities, generating income for residents, improving social services in the territory, reducing poverty etc. With this in mind, efforts are being made to improve the social and economic well-being of local residents, cushioning the adverse impact that the pressure of tourist flows has on the use of public services. Furthermore, the DTI Model helps to preserve socio-cultural uniqueness and authenticity, developing tourism products that showcase the unique resources and cultural attractions in the destination. Finally, the DTI Model helps to optimise the use of environmental resources, respect essential ecological processes, help to conserve natural resources and the biological diversity of the destination, safeguarding its singularity.

Below, details are provided of how each of these areas of action are reflected in the requirements and compliance indicators, in such a way that the destinations implementing the DTI model have a very specific guide for accomplishing this.

5 Areas of Action, Requirements and Indicators as Part of the Sustainability Pillar in the DTI Model

As in the case of the other chapters dedicated to the pillars of the DTI Model, below detailed tables are provided containing the requirements and their corresponding compliance indicators by action areas.

5.1 Area of Action 1: Tourism Sustainability Management

In area 1, the requirements have been defined for encouraging the destination to ensure all the necessary elements are in place to roll out and implement a genuine sustainable tourism management policy. With this in mind, the DTI Model provides destinations with 14 requirements to be met (Table 1) and the corresponding achievement indicators, which serve to guide the efforts of destination managers.

Table 1 Sustainability pillar, DTI model: area 1: requirements and indicators

SUSTAINABILITY, AREA 1: TOURISM SUSTAINABILITY MANAGEMENT	
REQUIREMENT 1: PLANNING AND MANAGEMENT OF TOURISM SUSTAINABILITY IN THE DESTINATION, IN LINE WITH THE SDGS	
Indicators	Monitoring the progress made with the sdgs in the destination (20%)
	Contribution to the achievement of the Sustainable Development Goals set out in the UN 2030 Agenda is viewed positively:
	Yes: 20%
	No: 0%
	Planning of strategic lines and actions in terms of tourism sustainability (20%)
	An analysis is performed about whether the destination has defined strategic lines and actions for the development of sustainable tourism and whether or not a budget has been set aside for them:
	Yes, with assigned budget: 20%
	Yes, no assigned budget: 10%
	Not planned: 0%
	Number of channels used to disclose the progress made and results of the sustainable tourism action plan (20%)
	No channel available: 0%
	Less than three: 5%
	Between 3 and 5: 10%
	More than 5 channels: 20%
Percentage of public equipment or facilities associated with tourism that have sustainability and/or quality certifications (20%)	
None: 0%	
Less than 50%: 10%	
Between 50 and 70%: 15%	
More than 70%: 20%	
Use of specific plans or instruments for sustainable tourism development (urban agenda, sustainability certification, etc.) (20%)	
Approved within the past 4 years: +5%	
Approved with public participation: +5%	
Published on the municipal website: +5%	
Action plan in place: +5%	
None: 0%	
REQUIREMENT 2: URBAN PLANNING OR MANAGEMENT OF THE DESTINATION/ TERRITORY ADAPTED TO THE PRINCIPLES OF SUSTAINABILITY	
An analysis is performed as to whether the destination has a current (territorial) urban planning plan in place that has been updated (revised) and approved (in full) in the past 8 years	

(continued)

Table 1 (continued)

SUSTAINABILITY, AREA 1: TOURISM SUSTAINABILITY MANAGEMENT	
Indicators	A general urban or territorial planning plan is in place that sets out protection measures for cultural, historical, artistic, architectural heritage and addresses the impact on the landscape over a period of less than 8 years (20%)
	Yes: 20%; No: 0%
	Urban planning available on the municipal website (20%)
	Yes: 20%; No: 0%
	Public participation in the preparation of urban planning (20%)
	Yes: 20% No: 0%
	Landscape study associated with urban planning (10%)
	Yes: 10% No: 0%
	Strategic environmental and territorial study associated with urban planning (10%)
	Yes: 10% No: 0%
Classification of new urban and developable land adapted to the territorial strategy (20%)	
Yes: 20% No: 0%	
REQUIREMENT 3: FOSTERING MORE ORDERLY AND SUSTAINABLE MOBILITY	
An analysis is performed as to whether the destination has a sustainable urban mobility plan (PMUS) or undertakes actions that promote sustainable mobility	
Indicators	Sustainable urban mobility plan in place (25%)
	Yes: 25% No: 0%
	Public transport adapted to tourism demand (timetables requested by tourists, routes that link tourism attractions; information panels in real time; tourist information at stops etc.) (15%)
	Yes: 15% No: 0%
	Significant percentage of pedestrian or semi-pedestrianised streets in the historic centre or commercial areas (10%)
	More than 10% of the streets in the historic centre or commercial areas are pedestrianised: 10% Less than 10%: 0%
Bike lane with a significant extension (15%)	

Table 1 (continued)

SUSTAINABILITY, AREA 1: TOURISM SUSTAINABILITY MANAGEMENT			
	No bike lane: 0% Less than 0.1 metre of bike lane/inhabitant: 2% Between 0.1 and 0.2 m/inhab.: 5% Between 0.2 and 0.5 m/inhab.: 10% More than 0.5 m/inhab.: 15%		
	Significant number of low-emission and electric public buses compared to the total (15%)		
	None: 0% Less than 25% low-emission and electric public buses: 2% Between 25 and 50%: 5% Between 50 and 75%: 10% More than 75%: 15%		
	Electric car charging stations (10%)		
	No charging stations: 0%; Less than 6 charging stations/100,000 inhab.: 2% Between 6 and 12 stations/100,000 inhab.: 5% Between 13 and 17 stations/100,000 inhab.: 7% More than 17 stations/100,000 inhab.: 10%		
REQUIREMENT 4: SUSTAINABLE MANAGEMENT OF TOURISM RESOURCES			
<p>An analysis is performed as to whether the destination has a policy and a programme in place to conserve the main natural and cultural tourism attractions, ensuring that its landscapes, ecosystems and habitats have been identified, as well as the potential impacts (positive and negative) as part of a visitor management plan, guaranteeing local access to these resources</p>			
Indicators	Visitor management plan in place minimising the negative impact on tourism resources (25%)		
	<table border="1"> <tr> <td><i>Yes: 25%</i></td> <td><i>No: 0%</i></td> </tr> </table>	<i>Yes: 25%</i>	<i>No: 0%</i>
<i>Yes: 25%</i>	<i>No: 0%</i>		
	Inventory drawn up of natural and cultural tourism resources, including the identification of landscapes, ecosystems and habitats (25%)		
	<table border="1"> <tr> <td><i>Yes: 25%</i></td> <td><i>No: 0%</i></td> </tr> </table>	<i>Yes: 25%</i>	<i>No: 0%</i>
<i>Yes: 25%</i>	<i>No: 0%</i>		
	Percentage of resources (natural and cultural tourism attractions) included in the inventory that are affected by tourism activity, in relation to which an environmental impact study has been performed (25%)		
	No impact assessed: 0% Impact assessed came to less than 25% of resources: 5% Impact assessed came to between 25 and 50%: 10% Between 50 and 75%: 15% More than 75%: 25%		
	Certifications/seals of sustainability and/or quality of tourism resources and companies in each tourism subsector (25%)		
	None: 0% Less than 50%: 10% Between 50 and 70%: 15% More than 70%: 25%		
REQUIREMENT 5: MEASUREMENT OF THE TOURISM CARRYING CAPACITY			
<p>An assessment is performed as to whether a study has been performed to assess the environmental impact of tourism in the destination, including systems to measure the tourism carrying capacity and its impact on the environment and the population</p>			

(continued)

Table 1 (continued)

SUSTAINABILITY, AREA 1: TOURISM SUSTAINABILITY MANAGEMENT	
Indicators	Environmental impact assessment study (carrying capacity) performed on the most important tourism attractions (30%)
	Yes: 30% No: 0%
	Calculation of the maximum human pressure (adding together the residential and tourist capacity for all types of accommodation) (35%)
Yes: 35% No: 0%	
Indicators	Monthly floating population estimate (calculated based on water consumption and waste generation) (35%)
	Yes: 35% No: 0%
REQUIREMENT 6: USE OF A SYSTEM OF SUSTAINABILITY INDICATORS IN THE DESTINATION	
System of indicators in place that is periodically updated and makes it possible to disclose the results	
Indicators	System of sustainability indicators in place (25%)
	Yes: 25% No: 0%
Indicators	SYSTEM OF SUSTAINABILITY INDICATORS PERIODICALLY UPDATED (25%)
	Yes: 25% No: 0%
Indicators	PUBLICATION OF THE SYSTEM OF SUSTAINABILITY INDICATORS ON THE MUNICIPAL WEBSITE (25%)
	Yes: 25% No: 0%
Indicators	INCLUSION OF THE SYSTEM OF SUSTAINABILITY INDICATORS IN THE EUROPEAN ETIS PROGRAMME AND/OR UNWTO SUSTAINABILITY OBSERVATORIES (25%)
	Yes: 25% No: 0%
REQUIREMENT 7: CONTRIBUTION OF TOURISM SPENDING TO SUSTAINABILITY	
An analysis is performed as to whether the destination has coordinated mechanisms to allocate part of the economic profits generated by tourism to the tourism sustainability plan	
Indicators	Mechanisms in place to allocate part of the economic profits generated by tourism (tourism tax or others) to the development of sustainable tourism (50%)
	Yes: 50% No: 0%
Indicators	Percentage of economic income in the destination generated by tourism (income generated by the sector, tax on economic activities and similar) set aside for the development of sustainable tourism (50%)
	More than 25%: 50% Between 20 and 25%: 30% Between 15 and 20%: 20% Between 10 and 15%: 10% Less than 10%: 0%
REQUIREMENT 8: MANAGEMENT OF DESTINATION SEASONALITY	
An assessment is performed as to whether the destination has programmes in place aimed at reducing the effects of the seasonal variation of tourism in the different areas. Diversified tourism products must be available, as well as an alternative offer adapted to the season	

Table 1 (continued)

SUSTAINABILITY, AREA 1: TOURISM SUSTAINABILITY MANAGEMENT	
Indicators	Monitoring monthly occupancy by accommodation spaces and tourist segment (50%)
	Yes: 50% No: 0%
	Percentage of activities offered aimed at boosting tourism in low season/total activities offered (50%)
	Less than 10%: 0%
	Between 10 and 15%: 10%
	Between 15 and 20%: 20%
	Between 20 and 25%: 30%
	More than 25%: 50%
REQUIREMENT 9: MARKETING FOR THE PURPOSES OF SUSTAINABLE TOURISM	
An analysis is performed as to whether the destination has a communication and promotion programme in place to develop and promote sustainable tourism attractions. The information provided on environmental quality and other sustainability specifications must be truthful, clear and accurate, without creating unrealistic expectations or communicating the different aspects of the commitment and the sustainable offer available in the destination in an ambiguous way	
Indicators	COMMUNICATION ACTIONS PERFORMED AND SUSTAINABLE PRODUCTS AND SERVICES PROMOTED (50%)
	Yes: 50% No: 0%
	INFORMATION PROVIDED ON SUSTAINABLE PRODUCTS AND SERVICES USING THE COMMUNICATION CHANNELS IN PLACE AT THE DESTINATION (WEBSITE, SOCIAL MEDIA, INFORMATION PANELS) (50%)
	Yes: 50% No: 0%
REQUIREMENT 10: SPECIFIC LEGISLATION IN RELATION TO NATURAL AND CULTURAL HERITAGE	
The destination has specific legislation in place in relation to the management and conservation of cultural and natural heritage	
Indicators	REGULATIONS IN PLACE AS REGARDS THE MANAGEMENT AND CONSERVATION OF CULTURAL AND NATURAL HERITAGE AT A LOCAL LEVEL (100%)
	Yes: 100% No: 0%
REQUIREMENT 11: FINANCIAL SUPPORT AVAILABLE FOR SUSTAINABILITY IN THE PRIVATE TOURISM SECTOR	
The destination having economic support programmes in place for the sustainable management of tourism SMEs that operate there is regarded positively	

(continued)

Table 1 (continued)

SUSTAINABILITY, AREA 1: TOURISM SUSTAINABILITY MANAGEMENT	
Indicators	Economic support programmes in place for the sustainable environmental and social management of tourism SMEs (40%)
	Yes: 40% No: 0%
Indicators	Percentage of tourism companies in the destination that benefits from the economic support programme (30%)
	No economic support programme: 0% Less than 2%: 10% Between 2 and 5%: 20% Between 5 and 10%: 25% More than 10%: 30%
Indicators	Percentage of tourism companies in the destination with sustainability certifications (30%)
	Less than 15%: 0% Between 15 and 20%: 10% Between 20 and 30%: 20% More than 30%: 30%
REQUIREMENT 12: INVOLVEMENT OF VISITORS IN ACTIONS RELATED TO IMPROVING THE SUSTAINABILITY OF THE DESTINATION, FOR EXAMPLE CLEANING BEACHES/NATURAL SPACES, ATTENDANCE AT FUNDRAISING FESTIVALS	
It is regarded positively when the destination informs its visitors about the activities undertaken to improve environmental, social and economic aspects; getting them involved and arbitrating mechanisms that provide interested tourists with the option of actively collaborating with the destination, its conservation, safeguarding and promotion	
Indicators	INFORMATION PROVIDED ON THE EFFORTS MADE IN RELATION TO SUSTAINABILITY IN ANY OF THE COMMUNICATION CHANNELS (100%)
	Yes: 100% No: 0%
REQUIREMENT 13: PROMOTE INTERACTION BETWEEN VISITORS AND RESIDENTS	
The destination will undertake actions/events for the local population to participate in the tourist activity of the destination	
Indicators	EVENTS WITH TOURISM VALUE AIMED AT/OR INVOLVING THE COMMUNITY (35%)
	Yes: 35% No: 0%
Indicators	DISCOUNTS OR BENEFITS OFFERED TO FACILITATE THE ACCESS OF THE LOCAL POPULATION TO TOURISM RESOURCES (35%)
	Yes: 35% No: 0%
Indicators	DEVELOPMENT OF CAMPAIGNS THAT ENCOURAGE THE USE OF FACILITIES AND SPACES OF TOURISM VALUE BY RESIDENTS (AT LEAST ONCE PER YEAR) (30%)
	Yes: 30% No: 0%
REQUIREMENT 14: AWARENESS OF TOURISM SUSTAINABILITY AMONGST RESIDENTS AND VISITORS	
Campaigns are regularly undertaken to raise awareness of the challenges posed by sustainable tourism as well as raising awareness amongst stakeholders in the destination (residents, the media, institutions, associations etc.)	

Table 1 (continued)

SUSTAINABILITY, AREA 1: TOURISM SUSTAINABILITY MANAGEMENT		
Indicators	Sustainability awareness campaigns aimed at residents and visitors (at least once per year) (40%)	
	Yes: 40%	No: 0%
	Information available on responsible actions in terms of sustainability (for example, energy savings, water savings and waste production) (30%)	
	Yes: 30%	No: 0%
	Publication of the responsible actions implemented (energy savings, water savings, waste production etc.) In the channels of communication in the destination (30%)	
	Yes: 30%	No: 0%

These 14 requirements take a wide variety of elements into consideration: sustainable and responsible tourism policy instruments deployed in the destination; whether sustainable tourism planning and destination management is in line with the SDGs (UN, 2015); whether urban planning responds to the principles of sustainability; whether orderly and sustainable mobility is encouraged; whether tourism resources are managed in a sustainable manner; whether the tourism carrying capacity is measured and taken into consideration; whether the destination has a system of sustainability indicators to assist and guide its management; whether the sustainability of the private tourism sector is financially supported; whether there is an awareness of the importance of promoting tourism sustainability; whether the contribution of tourism spending to sustainability is measured; whether the seasonality of the destination is managed; whether there is distinctive marketing for sustainable tourism products in the destination; whether there is specific legislation in place to protect cultural and natural heritage in the destination; whether visitors are involved in adopting responsible and sustainable behaviours in the destination; whether interaction between visitors and residents is encouraged and, finally, whether awareness of sustainability is promoted amongst visitors and residents.

5.2 Area of Action 2: Conservation, Improvement and Recovery of Cultural Heritage

Area 2 consists of 12 requirements (Table 2) defined to assess whether the destination has set up mechanisms to protect tangible and intangible cultural heritage, as well as to promote the development of tourism products based on resources in relation to this heritage.

Table 2 Sustainability pillar, DTI model: area 2: requirements and indicators

SUSTAINABILITY, AREA 2: CONSERVATION, IMPROVEMENT AND RECOVERY OF CULTURAL HERITAGE		
REQUIREMENT 15: PROTECTION FIGURE FOR CULTURAL HERITAGE		
Indicators	Protection figures are in place for cultural heritage in the destination and their use complies with specific legislation (100%)	
	The destination has different figures in place for the protection of cultural heritage (Properties of Cultural Interest or similar)	
	Yes: 100%	No: 0%
REQUIREMENT 16: DESIGN, CONSTRUCTION AND PROTECTION OF HERITAGE AND THE LANDSCAPE		
The destination protects its architectural heritage as regards the design, construction and landscape impact on facilities and infrastructures, as well as ensuring correct signage is in place, developing mechanisms to minimise this impact. It approves regulations and requirements in relation to planning, positioning, design, construction, materials, renovation, demolition and impact assessment, as well as establishing restrictions on the construction of tourism infrastructures in terms of guaranteeing respect for local architecture		
Indicators	Regulations are in place governing local architecture and the restrictions on construction to ensure respect for this type of architecture (30%)	
	Yes: 30%	No: 0%
	Part of the destination, the old quarter or similar, is protected by specific regulations to ensure the protection of heritage (40%)	
	Yes: 40%	No: 0%
	Local regulation in place on the impact of facilities and infrastructures (30%)	
	Yes: 30%	No: 0%
REQUIREMENT 17: INVENTORY AND ACTION PLAN IN PLACE FOR THE CONSERVATION OF THE HISTORICAL AND ARTISTIC HERITAGE		
The destination has prepared an inventory and action plan for the conservation of the historical and artistic heritage		
Indicators	Inventory of historical and artistic heritage drawn up (50%)	
	Yes: 50%	No: 0%
	Action plan drawn up in relation to historical and artistic heritage (50%)	
	Yes: 50%	No: 0%
REQUIREMENT 18: PROGRAMMES FOR THE RECOVERY OF CULTURAL HERITAGE		
Indicators	Programme in place for the recovery of cultural heritage and its transformation as a tourism resource (100%)	
	Yes: 100%	No: 0%
REQUIREMENT 19: PROMOTION AND PROTECTION OF LOCAL CULTURAL RESOURCES		
Development of specific actions for the maintenance, conservation and promotion of local cultural resources, in particular, local arts and crafts (for example, helping to preserve them and ensure their survival in cooperation with associations, providing spaces for cultural activities and craft shows)		
Ind.	Events organised by the destination with a focus on local culture (100%).	
	Yes: 100%	No: 0%

5.3 *Area of Action 3: Conservation and Improvement of the Environment*

The requirements in this area address aspects related to the sustainable management of the destination's physical space, its environmental protection and the efficient use of its resources (Table 3).

5.4 *Area of Action 4: Socio-economic Development and Circular Economy*

This aspect was introduced to ensure that destinations are also sustainable in relation to economic and social aspects. With this in mind, 11 requirements have been defined (Table 4) in relation to the protection of the local economy, the prioritisation of zero-km raw materials, responsible procurement, the promotion of local cuisine, training in sustainability, promotion of fair local employment opportunities, redistribution of the benefits and burdens of tourism, security and crisis management, civil protection, local experience-based tourism, healthcare for tourists, within other issues that readers will see in next tables.

Table 3 Sustainability pillar, DTI model: area 3: requirements and indicators

SUSTAINABILITY, AREA 3: CONSERVATION AND IMPROVEMENT OF THE ENVIRONMENT	
REQUIREMENT 20: PROTECTION OF THE LOCAL NATURAL ENVIRONMENT AND ITS BIODIVERSITY. AN ANALYSIS IS PERFORMED AS TO WHETHER THE DESTINATION HAS PLANS IN PLACE TO PROTECT ITS BIODIVERSITY AND ITS NATURAL ENVIRONMENT	
Indicators	Measures are in place to protect biodiversity and/or the natural environment (50%)
	Yes: 50% No: 0%
Indicators	The use of native plant life in public gardens is encouraged (50%)
	Yes: 50% No: 0%

Table 3 (continued)

SUSTAINABILITY, AREA 3: CONSERVATION AND IMPROVEMENT OF THE ENVIRONMENT	
REQUIREMENT 21: WATER CYCLE MANAGEMENT (MANAGEMENT, SUPPLY, TREATMENT AND REUSE OF WATER). THE EXISTENCE OF WATER CYCLE MANAGEMENT PLANS, INCLUDING PROGRAMMES TO SAVE WATER, EFFICIENT SUPPLY AND CONSUMPTION, AVAILABILITY OF SUFFICIENT WATER IN THE DESTINATION, WATER QUALITY CONTROLS AND AVOIDING LEAKS IS REGARDED POSITIVELY	
Indicators	Specific water efficiency, awareness and saving programmes in place across the tourism sector (companies and tourists) (10%)
	Yes: 10% No: 0%
	Significant percentage of wastewater is treated (10%)
	More than 80%: 10% Less: 0%
	Percentage of water lost in pipe systems (10%)
	Less than 10% losses: 10% Between 11 and 15%: 7% Between 16 and 20%: 5% Between 21 and 25%: 2% More than 25% losses: 0%
	Year-on-year reduction in the percentage of losses from the network compared to the previous year (10%)
	Yes: 10% No: 0%
	Quality control system in place for surface and coastal waters (10%)
	Yes: 10% No: 0%
	Maintenance and quality control programme in place at public facilities that use water (10%)
	Yes: 10% No: 0%
	Percentage of days during the season that a beach has had to be closed because the levels of pollution detected exceed those permitted divided by the total number of days in the season (10%)
	Less than 25%: 10% Between 5 and 10%: 5% More than 10%: 0%
	Control mechanisms are in place in relation to the quality of treated water (analytical or other) (10%)
	Yes: 10% No: 0%
	Percentage of irrigation water generated using treated wastewater (10%)
	Wastewater is not reused: 0% Less than 65%: 2% Between 65 and 75%: 5% Between 75 and 80%: 7% More than 80%: 10%
	Year-on-year reduction in the percentage of water lost in the destination's irrigation network (5%)
	Yes: 5% No: 0%
	Promotion of initiatives that prioritise the use of treated water for the purposes of irrigation (5%)
	Yes: 5% No: 0%

Table 3 (continued)

SUSTAINABILITY, AREA 3: CONSERVATION AND IMPROVEMENT OF THE ENVIRONMENT		
REQUIREMENT 22: AIR QUALITY MANAGEMENT. THERE IS AN AIR QUALITY		
Plan in place at the destination that includes measures to: reduce greenhouse gases (calculation of the carbon footprint, studies of GHG emissions in tourism destinations); to improve air quality (measuring stations, air quality map, corrective measures to be adopted) and to locate unhealthy sources, bad odours and measures to avoid them		
Indicators	Actions/measures are in place to minimise the emission of greenhouse gases (30%)	
	Yes: 30%	No: 0%
	Actions/measures are in place to measure and guarantee healthy air quality (35%)	
	Yes: 35%	No: 0%
	Actions/measures are in place to manage bad odours and unhealthy sources (35%)	
	Yes: 35%	No: 0%
REQUIREMENT 23: ASSESSMENT OF MECHANISMS FOR MINIMISING NOISE		
Management of noise pollution: the destination has a noise map in place and has implemented mechanisms to minimise noise as well as sound level parameters, legal regulations etc.		
Indicators	Implementation of mechanisms for minimising noise.—For example noise map; regulations/orders in relation to noise. (100%)	
	Yes: 100%	No: 0%
REQUIREMENT 24: ADAPTATION TO CLIMATE CHANGE		
It is regarded positively when: (1) the destination has a climate change adaptation strategy in place that identifies the most vulnerable sectors in addition to different mechanisms for including and involving the sectors that play a key role in the implementation of adaptation measures; (2) the destination has or participates with senior management in local measurement systems to adapt to climate change as well as a monitoring system for tracking the impacts of climate change		
Indicators	Strategies are in place for adapting to climate change.—For example systems for offsetting CO ₂ , reforestation initiatives in the destination, initiatives related to low energy consumption etc. (35%)	
	Yes: 35%	No: 0%
	The carbon footprint is measured in the destination (30%)	
	Yes: 30%	No: 0%
	The destination has achieved carbon footprint mitigation (35%)	
	Yes: 35%	No: 0%
REQUIREMENT 25: FOMENTING ENERGY EFFICIENCY		
A check is performed to see whether the destination has a programme of measures in place to promote energy efficiency across all its infrastructures, including both tourism and non-tourism variants, with a view to measuring and reducing their consumption		

(continued)

Table 3 (continued)

SUSTAINABILITY, AREA 3: CONSERVATION AND IMPROVEMENT OF THE ENVIRONMENT	
Indicators	The dmo has implemented an energy efficiency programme (20%)
	Yes: 20% No: 0%
	A smart grid has been rolled out with smart metres for management as well as storage devices close to the points of consumption (provide a description of the grid) (20%)
	Yes: 20% No: 0%
	Reduction of the consumption of public lighting. For example installation of leds (20%)
	Yes: 20% No: 0%
	Public buildings with energy management system certification (15%)
	Yes: 15% No: 0%
	Promotion of alternative energies (photovoltaic plants or other types of energy promoted by the city council) (15%)
	Yes: 15% No: 0%
	Inclusion of vehicles with alternative energies to the fleet of municipal services (10%)
	Yes: 10% No: 0%
REQUIREMENT 26: SELECTIVE COLLECTION AND WASTE TREATMENT	
The destination must have implemented and operationalised a system for the selective collection of urban waste	
	Campaigns for raising awareness and best practices in relation to minimising waste in the tourism sector (20%)
	Yes: 20% No: 0%
	Deployment of a selective collection system for urban waste (20%)
	Yes: 20% No: 0%
	Positive year-on-year evolution in relation to the volume of waste collected selectively (glass, packaging, paper, green waste etc.) (10%)
	Yes: 10% No: 0%
	Percentage of recycled waste (volume (m3) of recycled waste divided by total volume (m3) of annual waste) (25%)
	More than 45%: 25% Between 40 and 45%: 15% Between 35 and 40%: 10% Between 30 and 35%: 5% Less than 30%: 0%
	Programmes/measures implemented to control unlawful dumping (10%)
	Yes: 10% No: 0%
	Recycling points in the destination (5%)
	There is more than 1 recycling point for every 24,000 inhabitants: 5% 1 recycling point for every 24,000 inhabitants: 2% Less than 1 recycling point for every 24,000 inhabitants: 0%
	Mechanisms in place for the control and management of hazardous waste (5%)
	Yes: 5% No: 0%
	Sensorisation of waste collection (vehicles, containers, bins etc.) (5%)
	Yes: 5% No: 0%

6 The Sustainability Pillar in Practice: Recommendations

To provide the reader with an idea of the practical implications of the implementation of the sustainability pillar in tourism destinations that aspire to be a smart destination, this section sets out, by area of action, some of the main recommendations, linked to the SDGs, made to destinations following the initial diagnosis of their starting point.

6.1 Main Recommendations, Area 1

As described in Table 5, area 1 refers to the management of tourism sustainability; with this in mind, the usual recommendations aim to help destinations define a strategic plan that supports all the actions to be performed to help the management of the destination become more sustainable: urban planning, measurement of impacts for their subsequent management, planning and management of tourism flows or differentiation and positioning of the destination as a more sustainable tourism destination.

6.2 Main Recommendations, Area 2

Area 2 addresses the conservation, improvement and recovery of the destination’s cultural heritage, ensuring that the destinations have figures for the protection of cultural heritage; agree on criteria for the design, construction and protection of heritage and the landscape; and define action plans both for the conservation and recovery of heritage as well as for the promotion and protection of local cultural resources. With this in mind, the area was structured so as to ensure the conservation, improvement and recovery of cultural heritage; thus “typical” recommendations encourage destinations to develop one-of-a-kind sustainable tourism products

Table 4 Sustainability pillar, DTI model: area 4: requirements and indicators

Sustainability, area 4: socio-economic development and circular economy
REQUIREMENT 27: PROTECTION OF THE ECONOMY, ZERO-KM PRODUCTS AND LOCAL TOURISM
The destination has a support programme in place for tourism businesses, including subsidies for the promotion, education and support for local businesses. The support programme is funded in a way that is balanced with the economic impact of tourism on the community. The destination promotes sustainable local products and services (including local tourism attractions, food and beverages, craftwork, performing arts and agricultural products)

Table 4 (continued)

Sustainability, area 4: socio-economic development and circular economy	
Indicators	Support programme in place for tourism smes (80%)
	Yes: 80% No: 0%
	Percentage of companies and entrepreneurs in the sector that have accessed the different lines of the support programme for smes over the past year (20%)
	Less than 5%: 0% Between 5 and 15%: 10% More than 15%: 20%
REQUIREMENT 28: RESPONSIBLE PROCUREMENT POLICY AND SUPPORT FOR ZERO-KM PRODUCTS	
Suppliers/subcontractors who apply best sustainable practices both in terms of products and their processes will be given priority; furthermore, they are informed of this, with responsible procurement policies promoted that prioritise local suppliers, designations of origin and fair trade. These measures must be adhered to by the managing body(ies) and/or involved in the system in some way in addition to being actively promoted in the private sector	
Indicators	Percentage of purchases made by the dmo, prioritising suppliers/subcontractors that follow sustainable practices (50%)
	More than 40% of purchases: 50%
	More than 35% and less than 40%: 35%
	More than 30% and less than 35%: 20%
	More than 25% and less than 30%: 5%
	Less than 25% of purchases: 0%
	Percentage of purchases made by the destination's managing body from local suppliers, denominations of origin and fair trade (50%)
	More than 30% of purchases: 50%
	More than 25% and less than 30%: 35%
	More than 20% and less than 25%: 20%
More than 15% and less than 20%: 5%	
Less than 15% of purchases: 0%	
REQUIREMENT 29: PROMOTION OF THE SUPPLIERS OF LOCAL ZERO-KM TOURISM PRODUCTS, SERVICES AND EXPERIENCES	
Development of a programme of actions in favour of local products and services (revitalisation of heritage, fairs, markets, conferences etc.)	
Indicators	Actions or a support programme for local products and services have been implemented over the past 4 years (25%)
	Yes: 25% No: 0%
	Actions have been in place, or a programme has been in place, for less than 4 years aimed at promoting the creation of unique tourist experiences (50%)
	Yes: 50% No: 0%
	Actions are in place, or a programme is in place, that have been revised or updated in the past 4 years (or actions included in a programme) aimed at promoting local gastronomy (25%)
	Yes: 25% No: 0%
REQUIREMENT 30: PROMOTION OF PROGRAMMES FOR THE REDISTRIBUTION OF BENEFITS AND BURDENS GENERATED BY TOURISM	

Table 4 (continued)

Sustainability, area 4: socio-economic development and circular economy		
A strategic plan will be established that analyses the distribution of tourism activity across more neighbourhoods, areas or territorial resources to avoid overcrowding, bearing in mind the carrying capacity		
Indicators	MEASURES ARE IN PLACE THAT ADDRESS THE DISTRIBUTION OF TOURISM ACTIVITY FLOWS IN THE DESTINATION (100%)	
	Yes: 100%	No: 0%
REQUIREMENT 31: DIVERSIFICATION AND SEGMENTATION POLICY		
Indicators	A TOURISM PRODUCT DIVERSIFICATION STRATEGY IS IN PLACE AND DEMAND HAS BEEN SEGMENTED (100%)	
	Yes: 100%	No: 0%
REQUIREMENT 32: COMBATTING THE SEASONALITY OF EMPLOYMENT		
The destination is aware of the seasonal nature of employment and a programme is in place to reduce this seasonality; in such cases, this seasonality is handled in the form of training programmes in coordination with the private sector		
Indicators	A PROGRAMME IS IN PLACE TO REDUCE THE SEASONALITY OF EMPLOYMENT, IN COORDINATION WITH THE PRIVATE SECTOR (100%)	
	Yes: 100%	No: 0%
REQUIREMENT 33: TRAINING ACTIONS IN RELATION TO SUSTAINABILITY		
Designing and implementing training sustainability programmes to deliver to tourism employees. The programme or actions must include annual training objectives, as well as continuous training actions for staff (adapted to their usual activity) on all issues that affect the competitiveness and sustainability of the destination		
Indicators	IMPLEMENTATION OF TRAINING PROGRAMMES FOR THE QUALIFICATION OF TOURISM WORKERS IN THE PUBLIC AND PRIVATE SECTOR IN RELATION TO SUSTAINABILITY (100%)	
	More than 50%: 100%	
	Between 25 and 50%: 50%	
	Less than 25%: 0%	
REQUIREMENT 34: FAIR EMPLOYMENT OPPORTUNITIES		
The destination promotes opportunities for fair employment in the local tourism sector.		
Indicators	ACTIVE PROGRAMMES/MEASURES ARE IN PLACE TO PROMOTE FAIR EMPLOYMENT OPPORTUNITIES (25%)	
	Yes: 25%	No: 0%
	INITIATIVES ARE PROMOTED AIMED AT ENCOURAGING THE RECRUITMENT OF LOCAL RESIDENTS IN THE TOURISM SECTOR (25%)	
	Yes: 25%	No: 0%
	A PROGRAMME IS IN PLACE TO HELP EMPLOYEES OF THE DMO STRIKE A WORK/LIFE BALANCE (25%)	
	Yes: 25%	No: 0%
	PERCENTAGE OF COMPANIES IN THE SECTOR THAT HAVE IMPLEMENTED MEASURES AIMED AT GUARANTEEING EMPLOYEES CAN STRIKE A BALANCE BETWEEN WORK AND FAMILY LIFE (25%)	
	More than 80% of companies: 25%	
	Between 60 and 80%: 10%	
	Less than 60%: 0%	
REQUIREMENT 35: THE DMO COLLABORATES WITH SCHOOLS AND TOURISM EDUCATIONAL INSTITUTIONS IN RELATION TO SUSTAINABLE DEVELOPMENT ACTIVITIES OR TRAINING PROGRAMMES		

(continued)

Table 4 (continued)

Sustainability, area 4: socio-economic development and circular economy		
The DMO must collaborate with schools and tourism centres (as applicable) in relation to activities and programmes related to sustainable development. Furthermore, it promotes student visits, offer of work placements etc.		
Indicators	PROMOTION OF COLLABORATION IN THE TOURISM SECTOR WITH SCHOOLS OR TOURISM CENTRES (AS APPLICABLE) IN TERMS OF SUSTAINABILITY (100%)	
	Yes: 100%	No: 0%
REQUIREMENT 36: GUARANTEE TOURIST SECURITY AND CRISIS MANAGEMENT IN THE DESTINATION		
The destination has a programme in place to guarantee the safety of tourists through dedicated action protocols. The necessary measures are in place to guarantee the safety of tourists in terms of fire prevention and evacuation routes. Furthermore, a crisis plan may be established, and the necessary resources allocated, including possible crises caused by health issues; this is available to tourists and tourism companies as well as organisations and the local population		
Indicators	REINFORCEMENT OF POLICE FORCES AT TIMES WHEN THE INFLUX OF TOURISTS IS AT ITS HIGHEST (20%)	
	Yes: 20%	No: 0%
	ANNUAL CRIME RATE PER 1000 INHABITANTS (20%)	
	Less than 45.6: 20%	
	Between 45.7 and 100: 10%	
	More than 100: 0%	
	Percentage of local police officers per 10,000 inhabitants (20%)	
	More than 18 police officers per 10,000 inhabitants: 20%	
	Between 5 and 18 police officers per 10,000 inhabitants: 10%	
	Less than 5 police officers per 10,000 inhabitants: 0%	
	SPECIAL CIVIL PROTECTION PLAN/EMERGENCY PROGRAMMES OR SIMILAR IN PLACE (20%)	
	Yes: 20%	No: 0%
	INDIVIDUAL COLLECTION AND USE OF THE NUMBER OF COMPLAINTS FILED BY VISITORS WITH THE POLICE (20%)	
	Yes: 20%	No: 0%
REQUIREMENT 37: GUARANTEE THE HEALTH CONDITIONS OF THE DESTINATION AND COMPLIANCE WITH SPECIFIC ACTION PROTOCOLS AND REGULATIONS IN RELATION TO HEALTH, HYGIENE AND FOOD SAFETY		
The destination has a programme or actions in place to guarantee the health of tourists in the form of specific action protocols; as well as a specific plan to act in coordination with health authorities in case of the outbreak of a pandemic. Furthermore, the destination must guarantee the necessary hygiene and food safety requirements, based on legal provisions when they are in place. If they are not in place, it must be possible to demonstrate that these requirements are guaranteed based on widely accepted reference guidelines		
Indicators	The destination has a specific programme in place containing action protocols linked to the coordination of health authorities in case of the outbreak of a pandemic (50%)	
	Yes: 50%	No: 0%
	The dmo has an area/services dedicated to monitoring compliance with regulations in relation to health, hygiene and food safety (50%)	
	Yes: 50%	No: 0%

Table 4 (continued)

Sustainability, area 4: socio-economic development and circular economy		
REQUIREMENT 38: MONITORING AND HEALTHCARE FOR VISITORS		
The destination must guarantee the provision of information on health services available to tourists as well as monitor the services provided		
Indicators	The destination guarantees the provision of healthcare to visitors (65%)	
	Yes: 65%	No: 0%
	Individual collection and monitoring of the annual number of visitors receiving healthcare in the destination (25%)	
	Yes: 25%	No: 0%
	Monitoring the impact of covid-19 in the destination (5%)	
	Yes: 5%	No: 0%
	The destination provides information on the status of covid-19 on its tourism website (5%)	
	Yes: 5%	No: 0%

structured around the heritage resources available in the destination (as Table 6 illustrates). To this end, it is assumed that the enhancement of tangible and intangible cultural heritage facilitates its preservation as well as its enjoyment by residents in the destination.

6.3 Main Recommendations, Area 3

Area 3 addresses aspects regarding the conservation of the destination's environmental resources; therefore, as described in Table 7, the following recommendations often apply to this area: the introduction of systems for the efficient administration of natural resources, the definition of measures for recycling and waste management, or actions to reduce carbon footprints, to name just a few.

6.4 Main Recommendations, Area 4

Finally, area 4 sets out the requirements that destinations must meet to pursue their economic and social development, promoting a circular economy in the destination. Therefore, the recommendations offered to destinations in this area seek to raise awareness and involve all local stakeholders to ensure their cooperation with one another, meaning that tourism attractions in the destination are characterised by their authenticity, uniqueness and promotion of everything local (see Table 8).

Table 5 Examples of recommendations for improving the sustainability of the destination in area I

AREA 1: SUSTAINABILITY MANAGEMENT

REQ. 1: PLANNING AND MANAGEMENT OF TOURISM SUSTAINABILITY IN THE DESTINATION, IN LINE WITH THE SDGS

Fostering a tourism sustainability strategy

A key strategic line in this pillar is for tourism management to be based on sustainability and responsible tourism, by implementing a Sustainable Tourism Strategic Plan in the destination. It is recommended that the destination prepare a strategic tourism plan containing an action plan that pursues the Sustainable Development Goals (SDGs)

In any case, the plan should contain at least the following elements:

- Socio-economic, environmental and tourism diagnosis of the territory: Once information about the destination has been gathered, a SWOT or similar analysis must be performed to define the destination's strengths, weaknesses opportunities and threats
- Thematic pillars, lines of action and specific projects: The action plans must respond to the destination's specific objectives. To define the objectives, all stakeholders must be encouraged to participate
- Time frame and funding of the plan: each of the strategies and actions set out in the plan must be scheduled and budgeted
- Strategy for monitoring and assessing the plan. Specific indicators will be created for each of the action plans to allow for their periodic assessment
- Strategy for the dissemination of the plan. It is important for the plan to be disseminated using the different channels available. It is advisable that the plan may be downloaded, available for all the stakeholders

The document containing the strategies agreed between the administration, citizens and local stakeholders to achieve SDG in the territory in the medium and long term must address the term "sustainability" in its broadest sense, addressing social in addition to environmental issues

Address the suitability of taking into consideration the Guide for Sustainable Tourism published in December 2019 by the Spanish Network for Sustainable Development. This tool helps managers in the tourism sector assess the degree of compliance with the 17 Sustainable Development Goals (SDGs) set out in the United Nations' 2030 Agenda

As well as considering the Report on the impact of tourism and its effect on sustainability from a territorial perspective, published by SEGITTUR in 2019. And the General Guidelines for the Spanish Sustainable Tourism Strategy 2030

REQ. 1: PLANNING AND MANAGEMENT OF TOURISM SUSTAINABILITY IN THE DESTINATION, IN LINE WITH THE SDGS

Monitoring of the SDGs in the destination and sustainable and responsible tourism management

The functions of the DMOs, as part of their approach to sustainable and responsible management, include monitoring and following up on the tourism objectives and actions for the purposes of tourism sustainability

It recommends developing and implement a methodology to monitor and disclose the indicators of the 17 Sustainable Development Goals (SDGs) set out in the United Nations' 2030 Agenda, across the destination as a whole or at least in relation to the objectives that make explicit reference to tourism, such as:

SDG 8. Development and implementation of policies for the promotion of sustainable tourism

SDG 12. Design and application of instruments to attain sustainable tourism. Introduce and apply tools to monitor the impact as part of its development and thus achieve sustainable tourism that creates local employment and supports local culture and products

It is also advised developing indicators for other SDGs related as well to tourism activity or its impact:

SDG 6. Guaranteeing the availability and sustainable management of water and sanitation for all

Table 5 (continued)

AREA 1: SUSTAINABILITY MANAGEMENT

SDG 12. Guaranteeing sustainable consumption and production patterns

SDG 13. Adopting urgent measures to combat climate change and its impact

SDG 15. Protecting, restoring and promoting the sustainable use of terrestrial ecosystems

SDG 1. End poverty in all its forms, everywhere

SDG 5. Promoting gender equality

SDG 8. Promoting sustained, inclusive and sustainable economic growth

SDG 10. Reducing inequality

SDG 17. Revitalising the Global Partnership for Sustainable Development (at a local level)

To undertake this action, the destination may use a methodology designed in advance, such as the Biosphere methodology (certification system for tourism destinations) or design its own methodology. In this case, the indicators from the reference literature should be reviewed and adapted to the local context. This should result in the generation of the indicator monitoring dashboard

Consideration may be given to the active dissemination of data in relation to SDG indicators. It is recommended to communications at different levels and use different channels, in such a way that the destination will decide where it is and what solution best suits its needs. By way of example:

High level. Generation of periodic reports with the results of the assessment, making them available to the public

Medium level. Creation of a dedicated section on the municipal website to post all reports and news related to the indicator dashboard

Low level. Creation of a dedicated website in relation to the sustainability of the destination, with an interactive graphics system, where citizens can file queries and filter the data, export specific reports etc.

REQ. 4: SUSTAINABLE MANAGEMENT OF TOURISM RESOURCES*Implementation of a visitor management plan*

It is recommended having a Visitor Management Plan in place with a view to avoiding or minimising the negative impact of tourism on resources. This plan could be prepared separately or included in the Destination's Strategic Tourism Plan

Visitor management must be equipped with the necessary measures to mitigate the possible negative impacts of visitors on tourism resources. The measures established may be global or limited to certain tourism centres that account for the majority of visits and that require greater control and a higher volume of measures. It is also advisable undertaking a study to identify the resources on which the environmental impact of tourism is greatest, with a view to minimising the negative effects of tourism pressure on each resource

We also recommend measuring the carrying capacity during the high season, or when the influx of visitors is highest, and in places where the concentration of people is highest. This information would be useful for the purposes of supervising responsible tourism and to redistribute tourism flows in the destination through tourism marketing actions, segmentation of demand etc.

(continued)

Table 5 (continued)

AREA 1: SUSTAINABILITY MANAGEMENT

REQ. 5: MEASUREMENT OF THE TOURISM CARRYING CAPACITY

Measurement of the tourism carrying capacity of the destination

It is recommended that the destination draw up a carrying capacity study about the most relevant tourism attractions in the destination

It is suggested studying the visitor carrying capacity supported by the tourism resources in the destination, identifying milestones that may be detrimental to their conservation or their management

Special attention should be paid to peak volumes of visitors during certain periods and at certain times of the day, comparing these other less visited resources and identifying the flows of visitors with a view to redirecting them, reducing the pressure on the most visited places.

Establishing the appropriate measures to generate new flows of visitors allows for the more adequate distribution of tourism pressure

We also recommend performing periodic reviews of the carrying capacity study on tourism resources, maintaining control over the flow of visitors and taking into account the detrimental impact of visits on resources and their environment, updating the study where appropriate and incorporating all new factors included in the destination's tourism itineraries. We recommend reviewing the corrective measures used and their effects as well as involving other agents (administrations) that can contribute to tourism and environmental control in the destination

REQ. 8: TOURISM SEASONALITY MANAGEMENT

Tourism seasonality management

It is recommended efficiently manage tourism seasonality, for example increasing the number of activities with a view to lessen the seasonability of tourism flows, reaching a minimum of 30% of activities aimed at boosting the number of visitors during low season from the total number of activities organised

REQ. 11: FINANCIAL SUPPORT AVAILABLE FOR SUSTAINABILITY IN THE PRIVATE TOURISM SECTOR

Economic support programmes in place for the sustainable environmental and social management of tourism SMEs

It is recommended having an economic support programme in place for the sustainable environmental and social management of tourism SMEs

Tourism activity is strategic and relevant driver for the national, regional and local economy.

Moreover, if it is well managed, it becomes a key tool in the eradication of poverty and social inequalities, in line with the UN's Sustainable Development Goals (SDGs) for 2030

It is advisable that the destination prepare a preliminary report reflecting the number of tourism companies eligible for possible aid and the different aid currently available: EU fund subsidies, aid provided by the Spanish Chamber of Commerce, regional and central governments etc.

With this in mind, implementing an economic support programme for the sustainable management of SMEs is advisable

7 Lessons Learned in the Field of Smart Destination Sustainability: Challenges

Spain has been developing the DTI model for more than a decade, and a foundational principle during this time has been that a destination cannot be smart if it is not sustainable.

Enjoying existing tourism resources, including natural and cultural spaces, is a right of today's society and it is the responsibility of the public powers and citizens

Table 6 Examples of recommendations for improving the sustainability of the destination in area 2

AREA 2: CONSERVATION, IMPROVEMENT AND RECOVERY OF CULTURAL HERITAGE
REQ. 15: FIGURES FOR THE PROTECTION OF CULTURAL HERITAGE
<i>Figures for the protection of cultural heritage</i>
It is advisable having legal figures in place for the protection of cultural heritage in the destination, such as Property of Cultural Interest (BIC), Monument, Historic Site, Protected Archaeological Zone, Protected Paleontological Zone, Paleontological Site of Historic Value and Building of Historic Value
All the foregoing is within the framework of current legislation in relation to the protection of cultural heritage
REQ. 17: INVENTORY AND ACTION PLAN FOR THE CONSERVATION OF HISTORICAL AND ARTISTIC HERITAGE
<i>Inventory of historical and artistic heritage</i>
An inventory must be drawn up of the historical and artistic heritage in the destination, including all the elements of cultural heritage that must be protected
REQ. 17: INVENTORY AND ACTION PLAN FOR THE CONSERVATION OF HISTORICAL AND ARTISTIC HERITAGE
<i>Action plan for the protection of historical and artistic heritage</i>
It is recommended drawing up an Action Plan that includes the actions for the protection, conservation and recovery of the historical and artistic heritage in the destination; with this in mind, it is essential to prepare an inventory of these heritage assets in advance and to allocate specific resources and budget associated to the defined Action Plan
REQ. 18: PROGRAMME FOR THE RECOVERY OF CULTURAL HERITAGE AND ITS TRANSFORMATION AS A TOURISM RESOURCE
<i>Recovery of cultural heritage and its use as a tourism resource</i>
It is recommended having a programme in place for the recovery of tangible and intangible cultural heritage in the destination, including measures to develop this heritage as a tourism resources/product
Bearing in mind that it is essential to draw up an inventory of these heritage assets in advance and to equip the programme with sufficient budget and resources, consideration may also be given to the implementation of marketing strategies, integration of the business fabric and the innovative exploitation of resources, all within the framework of the sustainable tourism marketing plan

to preserve them for use by future generations. The managers of tourism destinations and other agents participating in the territorial management process must ensure sustainability within their own sphere of action. This is the main objective of the DTI model, justifying the huge weight of the sustainability pillar and its relationship with the SDGs. Through smart destination diagnoses and planning, we contribute to the creation of sustainable tourism spaces, or in other words, smart ones.

The smart destination model is structured around sustainability as its central pillar of action, on the premise that destination tourism management must necessarily be responsible and sustainable, understanding sustainability from the different approaches: conservation and improvement of cultural heritage, conservation of the physical-environmental space and improvement of the socio-economic development and circular economy of the destination. Understanding the DTI model as a process of continuous improvement, based on the measurement of indicators and the implementation of an action plan as a result of a situation diagnosis, embodies a

Table 7 Examples of recommendations for improving the sustainability of the destination in area 3

Area 3: conservation, improvement and recovery of the environment

REQ. 21: WATER CYCLE MANAGEMENT

Efficiency, awareness raising and water savings programme in the tourism sector

It is recommended promoting actions that contribute to reducing water consumption in the tourism sector, applying the existing measures and technologies in the market

Reducing water consumption will benefit the environment as well as providing economic savings to the advantage of citizens, tourists, entrepreneurs and public administrations. Water is the core resource of any tourism destination and the sustainable and efficient management of the end-to-end water cycle is essential in today's world. SDG 6 indicates that "Ensuring the availability and sustainable management of water and sanitation for all" must be achieved. Water is crucial when it comes to sustainable development, improvements to the supply of drinking water, sanitation and hygiene, creating economies of scale in other areas, including health, education and reducing poverty. Therefore, it is recommended the design and implement a Hydraulic Efficiency Plan for the distribution system that includes an initial diagnosis and facilitates the definition of an action plan that sets out the specific measures to be implemented. This would allow us to annually monitor compliance with the objectives of the Plan. It is also highly recommended that the destination undertakes a communication campaign, using new technologies, of the annual results reports for the existing water efficiency, awareness raising and saving programmes amongst the tourism sector, aiming to motivating and raising awareness about saving water amongst the entire population and especially in the tourism sector

REQ. 24: ADAPTATION TO CLIMATE CHANGE

Strategy for adapting to climate change

It is recommended preparing and implementing a strategy for adapting to climate change in the destination pursuant to the 2021–2030 Spanish Climate Change Adaptation Plan and the Spanish Environmental Promotion Plans (PIMAs)

Based on the achievement of the Sustainable Development Goals (SDGs) for 2030, it is advised making a commitment to environmental conservation and improvement, the fight against climate change, promoting the use of clean and renewable energy, environmental management of the water cycle, eradication of poverty, social economy etc.

Progress must be made with environmental conservation; to this end, synergies may be created through public–public and public–private collaboration. As part of the Climate Change Adaptation Strategy, it is recommended having a programme in place to encourage companies and tour operators to measure and reduce greenhouse gas (GHG) emissions and to encourage the local tourism sector to participate in CO₂ remission and offsetting and adaptation to climate change initiatives

(continued)

Table 7 (continued)

Area 3: conservation, improvement and recovery of the environment
REQ. 25: FOMENTING ENERGY EFFICIENCY
<i>Fomenting alternative/renewable energies</i>
Firstly, it is recommended preparing an energy audit of municipal/public facilities and considering possible energy improvement actions by promoting alternative/renewable energies, with a view to reducing energy consumption, introducing environmental and energy efficiency criteria
Furthermore, promoting alternative/renewable energies (photovoltaic plants or similar) is regarded positively, with actions such as awareness raising campaigns, training and promotion of energy culture across all areas, the implementation of energy efficiency in municipal facilities, the implementation of sustainable mobility actions, municipal orders that promote the installation of energy self-supply systems using renewable energies, tax rebates etc., especially in the local tourism sector
REQ. 26: SELECTIVE COLLECTION AND WASTE TREATMENT
<i>Achieving a percentage of recycled waste of more than 50%</i>
It is advised developing periodic awareness raising campaigns with a view to promoting the value and social need for recycling, improving the quality of waste separation and clearing up any queries that residents and visitors may have
Improving the quantity and quality of recycled material translates into an environmental benefit that involves saving natural resources, raw materials, energy and reducing emissions into the atmosphere
It is recommended that the destination meet the European target of recycling 50% of household waste and in relation to this requirement, exceeding 45% by applying continuous year-on-year increase criteria is regarded positively

firm commitment to sustainability. A consolidated and clear commitment to sustainable tourism, where carrying capacity, thresholds, the circular economy, the efficient use of resources, the fight against climate change, the conservation of biodiversity, the promotion of culture, sustainable mobility and accessibility, the reactivation of the local economy, support for businesses, local producers and tourism companies... are the levers for change.

The main sustainability challenges detected during the smart destination diagnostic processes undertaken to date by SEGITTUR have been as follows:

- Challenge 1: Need for adequate management or governance instruments for tourism sustainability.

Destinations face the challenge of having adequate tourism policy instruments in line with the promotion and management of tourism sustainability, such as a sustainable tourism master plan and a tourism marketing plan that adopts a sustainable approach, also in line with the SDGs. This challenge also encompasses the sustainable management of tourism resources.

- Challenge 2: Implementation of sustainability as the driving force in the management of the private tourism sector.

It has been identified that continuous and programmed efficient management of sustainability in the local tourism sector is either lacking or insufficient. With this in mind, public-private collaboration should encourage the private tourism

Table 8 Examples of recommendations for improving the sustainability of the destination in area 4

Area 4: socio-economic development and circular economy
REQ. 27: PROTECTION OF THE ECONOMY, ZERO-KM PRODUCTS AND LOCAL TOURISM
<i>Support programme for SMEs in the tourism sector</i>
It is recommended, with a view to protecting the economy and local tourism, having a support programme in place for companies, which tourism companies may benefit from, containing dissemination actions and a system for regularly updating information
The business support programme must include aid for promotion, training, advice and support for local businesses. The support programme will be funded in a way that is balanced with the economic impact of tourism on the community. The destination will promote sustainable local products and services (including local tourism attractions, food and beverages, craftwork, performing arts, agricultural products, zero-km products and local tourism)
REQ. 29: PROMOTION OF THE SUPPLIERS OF LOCAL ZERO-KM PRODUCTS, SERVICES AND EXPERIENCES
<i>Promotion of local gastronomy</i>
It is recommended performing actions or having a programme in place to promote local gastronomic products that generate employment and social benefits by supporting zero-km products and local gastronomy. A plan could be designed to promote gastronomic tourism, defining strategies and management formulas to promote local products
REQ. 33: TRAINING ACTIONS IN RELATION TO SUSTAINABILITY
<i>Training in tourism sustainability</i>
It is recommended having a strategic programme of training actions in relation to sustainability for staff working in the public and private tourism sectors. The programme will include annual training objectives, continuous training actions for staff based on their usual activity, on tourism sustainability and sustainable development
REQ. 34: FAIR EMPLOYMENT OPPORTUNITIES
<i>Promotion of active programmes/measures are in place to promote fair employment opportunities</i>
It is recommended performing actions or having a programme in place to promote fair employment opportunities, based on the creation and maintenance of quality employment in the local tourism sector. Beforehand, it would be advisable to prepare a diagnosis of the labour market and tourism in the destination, serving as the basis for designing the pursued improvements. It is also advisable performing actions or initiatives aimed at promoting the recruitment of residents/locals in the tourism sector, aimed at ensuring the stability of employment in the tourism sector and reducing temporary employment
REQ. 36: GUARANTEE TOURISM SECURITY AND CRISIS MANAGEMENT IN THE DESTINATION
<i>Police reinforcements at peak tourism times</i>
It is recommended reinforcing the presence of police officers during periods in which the destination receives a greater influx of visitors. It is recommended that this increase be assigned in particular to those resources and places of most interest to tourists. This measure enhances security for both residents and visitors. Along the same lines, the destination may promote other actions that complement the reinforcement of police officers, such as the preparation of preventive recommendations for tourists and residents

sector to participate in managing the sustainability of the destination and, in turn, sustainably manage its tourism business.

- **Challenge 3: Management of seasonality and tourist flows in the destination.**
With tourism sustainability in mind, adequately managing tourist flows throughout the entire year is considered a priority; this would entail depersonalising tourism demand, with actions such as promoting senior tourism, nature, rural, shopping and culture whilst also redirecting tourist flows to the non-saturated areas of the destination. In this sense, it is advisable developing appealing tourism products in those areas to increase their interest of tourists.
- **Challenge 4: Conservation, improvement and recovery of cultural heritage.**
Destinations need to have an inventory and action plan for the conservation and improvement of their historical and artistic heritage with a view to subsequently designing recovery programmes and encouraging its tourist or cultural use.
- **Challenge 5: Need for sustainable mobility.**
It has been found that there is an urgent need for the efficient planning and implementation of sustainable mobility management in destinations and towards tourism destinations. The destination's Mobility Plan must consider tourist inflows and their direct impact on urban mobility. Actions must be implemented to improve mobility using bike and electric mobility and to facilitate parking and urban public transport.
- **Challenge 6: Tourism must play a critical role in the adaptation to climate change.**
Tourism is one of the sectors that has the biggest influence on climate change and can also be negatively affected by the consequences of climate change. With this in mind, it is recommended adopting Climate Change Adaptation Strategies in which the tourism sector participates in the reduction of greenhouse gases, electric and sustainable mobility, calculating and offsetting the carbon footprint, use of clean/renewable energy, energy efficiency, air quality etc.
- **Challenge 7: Knowledge of tourism sustainability.**
It has been found that a system of destination sustainability indicators dashboard needs to be set up. We also recommend measuring the carrying capacity during the high season or when the influx of visitors is highest and in places where the concentration of people is highest. As well as performing an environmental impact assessment in terms of the territoriality of tourism use. DMOs must remember that they cannot improve something that has not been measured, on this extent see the discussion in the box below, by Professor Enrique Navarro-Jurado.

The Path Towards Sustainable Tourism

Sustainability is a path, not just a goal, which involves multiple agents with conflicting interests. That is why we speak of a process of social and political construction. It has various characteristics, including sustainability has to be measurable, and this means quantifying objectives and results; there is no sustainability without limits and the most effective tool is load capacity, because "sustainable tourism growth" is an oxymoron and responds to a partial and very economical view of the concept.

Tourist destinations must show their commitment to moving faster. And there are three basic challenges for sustainability in tourism:

1. Establishing the load capacity of destinations, provided for in requirement 5 of the sustainability axis in the DTI model, especially with respect to basic resources, such as water, energy and soil, together with the perception of residents and tourists, combining qualitative and quantitative limits (Thiel Ellul & Navarro Jurado, 2018).
2. Demonstrating the social benefit, provided for in requirement 14 of the sustainability axis of the DTI model, so that residents know how the benefit derived from tourist activity has a direct impact on their quality of life, accounting for what is invested in health, education or social services thanks to the economic impact of tourism, through the so-called “rate of social compensation” (Navarro Jurado et al., 2023).
3. The climate and energy emergency, which will cause the mandatory adaptation of destinations, provided for in requirement 24 of the sustainability axis of the DTI model, to changes in demand—the market’s top concern—triggered by changes in the source space. However, a more decisive role is played by the adaptation in the receiving destination to the increase in heat waves, the increase in extreme weather phenomena, water scarcity, the intensification of coastal erosion and rising sea levels, the proliferation of exotic species (algae, mosquitoes, etc.) (Blanco Vílchez & Navarro Jurado, 2023).

In short, the future success of Smart Destinations in the medium term will depend on their ability to adapt to the challenges posed by a new era.

—Associate Professor Enrique Navarro-Jurado,
Geography Department, University of Málaga, Spain.

- **Challenge 8: Training in tourism sustainability.**
Destinations need to make progress with training and education in tourism sustainability, which involves detecting training needs in sustainability for both public employees and the private sector in local tourism. Those identified qualification needs will serve as a base to set up the training programmes to be delivered for the tourism sector professionals at the destination.
- **Challenge 9: Socio-economic and workplace sustainability.**
The tourism industry is affected by significant seasonality and a clear component of underground economy; with this in mind, ensuring labour rights and gender equality in tourism must be a priority for tourism managers and actual compliance must be ensured. The 2022 labour reform in Spain represented a step forward to this end, in the form of Royal Decree-Law 32/2021, of 28 December, on urgent measures for labour reform, the guarantee of employment stability and the transformation of the job market has reduced the seasonality of employment and improved the social security affiliation ratios in the sector as well as decent working conditions.

Appendix

Rachel Dodds, Ph.D., is a professor at the Ted Rogers School of Hospitality and Tourism Management at Toronto Metropolitan University (formerly known as Ryerson University). Rachel is known globally for her work to help make tourism more sustainable both within academia and industry and she is passionate about making change. Rachel has widely published on the topics of sustainable

tourism, overtourism, destination planning and policy, islands and consumer motivations. Rachel is also the Director of Sustaining Tourism, a boutique consultancy where she has provided advice to governments, industry, and the non-profit sector.

Sara Dolnicar, Ph.D., is a Professor of Tourism at The University of Queensland in Australia. Her current research program develops and experimentally tests measures that trigger pro-environmental behaviour in tourists. Professor Dolnicar currently serves as the Co-Editor in Chief of *Annals of Tourism Research*. She was awarded the Travel and Tourism Research Association Distinguished Researcher Award in 2017, and named the Slovenian Ambassador of Science in 2016, the highest honour the Republic of Slovenia bestows on expatriate Slovenian researchers in recognition of global excellence, impact, and knowledge transfer.

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References

- Aladag, O. F., Köseoglu, M., King, B., & Mehraliyev, F. (2020). Strategy Implementation research in hospitality and tourism: current status and future potential. *International Journal of Hospitality Management*, 88, 102556. <https://doi.org/10.1016/j.ijhm.2020.102556>
- Araña, J. E., & León, C. J. (2016). Are tourists animal spirits? Evidence from a field experiment exploring the use of non-market based interventions advocating sustainable tourism. *Journal of Sustainable Tourism*, 24(3), 430–445.
- Arbolino, R., Boffardi, R., Simone, L., & Ioppolo, G. (2021). The evaluation of sustainable tourism policymaking: a comparison between multicriteria and multi-objective optimization techniques. *Journal of Sustainable Tourism*, 29(6), 1000–1019. <https://doi.org/10.1080/09669582.2020.1843044>
- Baca-Motes, K., Brown, A., Gneezy, A., Keenan, E. A., & Nelson, L. D. (2012). Commitment and behaviour change: Evidence from the field. *Journal of Consumer Research*, 39(5), 1070–1084.
- Balaguer, J., & Cantavella-Jordá, M. (2002). Tourism as a long-run economic growth factor: The Spanish case. *Applied Economics*, 34(7), 877–884. <https://doi.org/10.1080/00036840110058923>
- Blanco Vélchez, M., & Navarro Jurado, E. (2023). Los destinos turísticos litorales andaluces ante los retos de una nueva época. In L. Sánchez & C. Montes (Eds.), *El futuro del turismo en Andalucía* (pp. 183–204). Edt Dykinson.
- Brida, J. G., Cortes-Jiménez, I., & Pulina, M. (2016). Has the tourism-led growth hypothesis been validated? A literature review. *Current Issues in Tourism*, 19(5), 394–430.
- Bulter, R. W. (2019). Tourism carrying capacity research: a perspective article. *Tourism Review*, 75(1), 207–211. <https://doi.org/10.1108/TR-05-2019-0194>
- Choi, H. C., & Sirakaya, E. (2006). Sustainability indicators for managing community tourism. *Tourism Management*, 27(6), 1274–1289. <https://doi.org/10.1016/j.tourman.2005.05.018>

- Coccosis, H. (2022). Tourism carrying capacity. In D. Buhalis (Ed.), *Encyclopedia of tourism management and marketing* (pp. 400–403). Edward Elgar.
- Coccosis, H., & Mexa, A. (2004). *The challenge of tourism carrying capacity assessment. Theory and practice*. Routledge Taylor & Francis Group.
- Comisión Europea. (2022). *European capitals for smart tourism*. Available at: https://smart-tourism-capital.ec.europa.eu/index_en
- De Vita, G., & Kyaw, K. S. (2016). Tourism development and growth. *Annals of Tourism Research*, 60, 23–26.
- Dogru, T., & Bulut, U. (2018). Is tourism an engine for economic recovery? Theory and empirical evidence. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2017.06.014>
- Dolnicar, D., Knežević Cvelbar, L., & Grün, B. (2019). A sharing-based approach to enticing tourists to behave more environmentally friendly. *Journal of Travel Research*, 58(2), 241–252.
- Dolnicar, S., Juvan, E., & Grün, B. (2020). Reducing the plate waste of families at hotel buffets—A quasi-experimental field study. *Tourism Management*, 80, 104103.
- Elliot, S., Papadopoulos, N., & Kim, S. (2011). An integrative model of place image: Exploring relationships between destination, product and country images. *Journal of Travel Research*, 50(5), 520–534.
- Fernández-Alcantud, A., López-Morales, J. M., & Perles-Ribes, J. F. (2016). La situación de la actividad turística en España: ante nuevos récords y retos. *Revista Economistas*, 150, 97–105. Available at: http://rua.ua.es/dspace/bitstream/10045/68118/1/2016_Fernandez-Alcantud_et al_Economistas.pdf
- García-Moreno, B., & Fernández-Alcantud, A. (2022). El Modelo Destinos Turísticos (DTI): La apuesta por la sostenibilidad turística. *Revista Economía Industrial*, 426, 93–106.
- García-Zarza, E. (2002). El turismo cultural en Castilla y León. El caso singular de las Edades del Hombre. *Cuadernos de Turismo*, 10, 23–67. Available at: <https://revistas.um.es/turismo/article/view/21871>
- Gobierno de España (2021). *Plan de Recuperación Transformación y Resiliencia*. Available at: https://www.lamoncloa.gob.es/temas/fondos-recuperacion/Documents/30042021-Plan_Recuperacion_%20Transformacion_%20Resiliencia.pdf
- Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of Consumer Research*, 35(3), 472–482.
- Gössling, S., & Higham, J. (2021). The low-carbon imperative: Destination management under urgent climate change. *Journal of Travel Research*, 60(6), 1167–1179. <https://doi.org/10.1177/0047287520933679>
- Ivars Baidal, J. A. (2001). *Planificación y gestión del desarrollo turístico sostenible: propuestas para la creación de un sistema de indicadores*. Documento de trabajo. Instituto Universitario de Geografía. Universidad de Alicante. Available at: https://rua.ua.es/dspace/bitstream/10045/20506/1/Planificacion_gestion_sostenible_desarrollo_turistico_sostenible.pdf
- Juvan, E., & Dolnicar, S. (2014). The attitude–behaviour gap in sustainable tourism. *Annals of Tourism Research*, 48, 76–95.
- Kallbekken, S., & Sælen, H. (2013). Nudging’ hotel guests to reduce food waste as a win–win environmental measure. *Economics Letters*, 119(3), 325–327.
- Karlsson, L., & Dolnicar, S. (2016). Does eco certification sell tourism services? Evidence from a quasi-experimental observation study in Iceland. *Journal of Sustainable Tourism*, 24(5), 694–714.
- Knežević Cvelbar, L., Grün, B., & Dolnicar, S. (2021). “To clean or not to clean?” Reducing daily routine hotel room cleaning by letting tourists answer this question for themselves. *Journal of Travel Research*, 60(1), 220–229.
- Mérida, A., & Golpe, A. A. (2016). Tourism-led growth revisited for Spain: Causality, business cycles and structural breaks. *International Journal of Tourism Research*, 18, 39–51. <https://doi.org/10.1002/jtr.2031>

- Navarro Jurado, E. (coord), Moreno Gil, S., del Valle Tuero, E., Melgosa Arcos, J., & Blanco Vilchez, M. (2023). La sostenibilidad del turismo post covid. *2023 Report by SEGITUR and the Spanish Ministry of Industry, Trade and Tourism*.
- OECD. (2020). Rethinking tourism success for sustainable growth. Chapter 3. In: *Tourism trends and policies 2020*. Available at: <https://www.oecd-ilibrary.org/sites/82b46508-en/index.html?itemId=/content/component/82b46508-en>
- OECD. (2021). *Managing tourism development for sustainable and inclusive recovery*. OECD Tourism Papers, 2021, 1. OECD. <https://doi.org/10.1787/b062f603-en>.
- O'Reilly, A. M. (1986). Tourism carrying capacity: concept and issues. *Tourism Management*, 7(4), 254–258. [https://doi.org/10.1016/0261-5177\(86\)90035-X](https://doi.org/10.1016/0261-5177(86)90035-X)
- Red Española del Pacto Mundial de Naciones Unidas. (2019). *Guía para un Turismo Sostenible: retos y criterios para la evaluación del sector turístico ante la Agenda 2030*. Available at: <https://reds-sdsn.es/wp-content/uploads/2019/10/Gui%CC%81a-para-un-turismo-sostenible-REDS-RTI-web.pdf>
- Responsible Tourism Institute. (2017). *El proceso hacia los destinos vacacionales sostenibles*. Memorándum de Arona, Tenerife Sur, 2017. Available at: <https://www.biosphetourism.com/assets/arxius/af62847613beceb7f079a57480a49746.pdf>
- Ritchie, J. R. B., & Crouch, G. I. (2003). *The competitive destination: A sustainable tourism perspective*. CABI.
- Santos, M. C., Veiga, C., Santos, J. A. C., & Águas, P. (2022). Sustainability as a success factor for tourism destinations: a systematic literature review. *Worldwide Hospitality and Tourism Themes*, 14(1), 20–37. <https://doi.org/10.1108/WHATT-10-2021-0139>
- Saarinen, J., & Rogerson, C. M. (2013). Tourism and the millennium development goals: Perspectives beyond 2015. *Tourism Geographies*, 16(1), 23–30. <https://doi.org/10.1080/014616688.2013.851269>
- Secretaría Estado de Turismo [SET]. (2021). *Estrategia de Turismo Sostenible 2030*. Available at: <https://turismo.gob.es/es-es/estrategia-turismo-sostenible/Paginas/Index.aspx>
- SEGITTUR. (2015). *Smart Destinations: Informe destinos turísticos inteligentes: construyendo el futuro*. Available at: <https://www.segittur.es/wp-content/uploads/2019/11/Libro-Blanco-Destinos-Turísticos-Inteligentes.pdf>
- SEGITTUR. (2019). *Informe sobre economía circular aplicada al turismo*. Available at: <https://www.segittur.es/wp-content/uploads/2019/09/Informe-sobre-economi%CC%81a-circular-aplicada-al-turismo-ok.pdf>
- SEGITTUR. (2022a). *Guía Práctica para la Aplicación de la Economía Circular en el sector turístico en España*. Available at: https://www.segittur.es/wp-content/uploads/2022/05/Guia_Economia_Circular_sector_turismo.pdf
- SEGITTUR. (2022b). *Manual de Economía Circular para pymes turísticas*. Available at: <https://www.segittur.es/wp-content/uploads/2022/05/Manual-PYME.pdf>
- SEGITTUR. (2022c). *Manual de Economía Circular para destinos turísticos*. Available at: https://www.segittur.es/wp-content/uploads/2022/05/Manual-Economia_Circular-destinos.pdf
- Thiel Ellul, D. F., & Navarro Jurado, E. (2018). *Medición y análisis de la sostenibilidad: Indicadores sintéticos a través de métodos multicriterio y su relación con el turismo en el litoral de Andalucía*. Síntesis.
- Tiefenbeck, V., Wörner, A., Schöb, S., Fleisch, E., & Staake, T. (2019). Real-time feedback promotes energy conservation in the absence of volunteer selection bias and monetary incentives. *Nature Energy*, 4(1), 35–41.
- Torres-Delgado, A., & Saarinen, J. (2014). Using indicators to assess sustainable tourism development: a review. *Tourism Geographies*, 16(1), 31–47. <https://doi.org/10.1080/01461668.2013.867530>
- Tugcu, C. T. (2014). Tourism and economic growth nexus revisited: A panel causality analysis for the case of the Mediterranean region. *Tourism Management*, 42, 207–212. <https://doi.org/10.1016/j.tourman.2013.12.007>
- UN. (2015). *The sustainable development agenda*. Retrieved from: <https://www.un.org/sustainabledevelopment/development-agenda/>

- UN. (2022). *World economic situation and prospects 2022*. Available at: <https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-2022/>
- UNWTO. (1999). *Código Ético Mundial para el Turismo Responsable*. Available at: https://webunwto.s3.eu-west-1.amazonaws.com/imported_images/37826/gcetbrochureglobalcodees.pdf
- UNWTO. (2002). Sustainable tourism-eliminating poverty. UNWTO. Madrid. Available at: <https://www.eunwto.org/doi/epdf/10.18111/9789284405497?role=tab>
- UNWTO. (2013). EU guidebook on sustainable tourism for development. Available at: <https://www.unwto.org/EUguidebook-on-sustainable-tourism-for-development>
- UNWTO. (2017). *World conference on smart destinations*. Available at: <https://library.co/document/zl1w39gy-st-unwto-world-conference-on-smart-destinations.html>
- UNWTO. (2018). *World conference on smart destinations*. Available at: <https://www.unwto.org/europe/event/2nd-unwto-world-conference-smart-destinations-0>
- Uysal, M., Sirgy, M. J., Woo, E., & Kim, H. L. (2016). Quality of life (QOL) and well-being research in tourism. *Tourism Management*, 53, 244–261. <https://doi.org/10.1016/j.tourman.2015.07.013>
- World Economic Forum (WEF). (2017). *The travel and tourism competitiveness report 2017*. Available at: <https://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/>
- World Economic Forum (WEF). (2019). *The travel and tourism competitiveness report 2019*. Available at: https://www3.weforum.org/docs/WEF_TTCR_2019.pdf
- World Economic Forum (WEF). (2022). *Travel & tourism development index 2021: Rebuilding for a sustainable and resilient future*. Retrieved from: https://www3.weforum.org/docs/WEF_Travel_Tourism_Development_2021.pdf
- WTTC. (2020). *Manifiesto sobre Destinos Turísticos Inteligentes*. Available at: <https://www.destinosinteligentes.es/manifiesto-de-la-wtm-para-un-turismo-mas-inteligente/>

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The Pillar of Accessibility in the Spanish Smart Tourism Destinations (DTI) Model



Luigi Leporiere and Lidia Andrades

Abstract Accessibility is a core aspect of the smart tourism destination model, recognizing the need to promote tourism development in the destination pursuant to the principle of universal accessibility, thus improving the tourist experience of all visitors and, at the same time, the quality of life of local residents. This particularly applies to residents who, on account of their age, disability, or other temporary or permanent circumstances, have greater accessibility needs. The chapter begins by offering a review of the concept of tourism accessibility, to then describes how the DTI methodology integrates it into destination management through the pillar of accessibility. This pillar represents a weight of 18% of the model and is articulated through 17 requirements and 43 indicators through which the performance of the destination is evaluated in two areas: Accessibility management and Accessibility implementation. Finally, by areas of action, this chapter details the requirements and indicators of the accessibility pillar together with the main recommendations, linked to each of the areas of the pillar, which are usually made to destinations that are implementing the DTI Model in terms of accessibility.

1 Introduction

This chapter, dedicated to the Accessibility Pillar of the Smart Tourism Destinations (DTI) Model, closes content block II, where the methodology underlying the DTI Model was described (Fig. 1).

The following pages provide the reader with an approach to the concept of accessibility in the context of the tourism sector, and how it has gained depth and breadth over time. The concept has evolved to the point where accessibility is now

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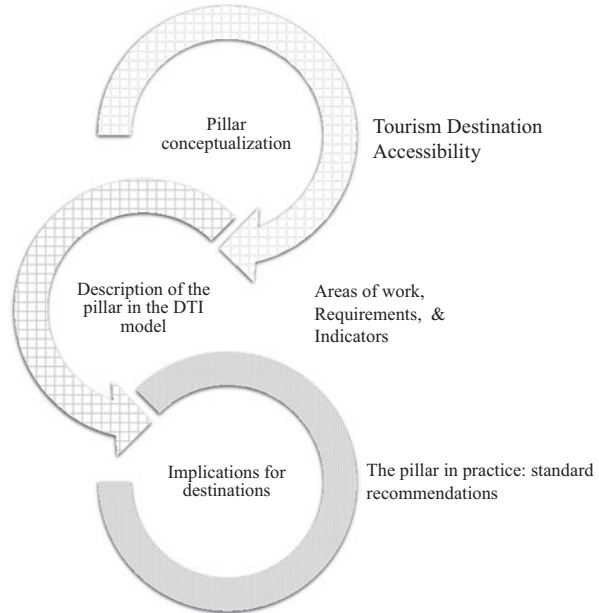
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223

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Fig. 1 Chapter outline



considered from a management point of view, adopting a 360° vision, which consists of considering the diversity of needs—not only those related to mobility but of those who visit the destination. From this approach, the concept of universal accessibility takes the central stage, benefiting all types of people, with and without disabilities, regardless of their age, abilities, or skills. The incorporation of universal accessibility criteria in the planning and management of destinations entails designing tourism products and spaces that are usable for a large majority of people, creating spaces that are accessible to all. When these spaces are designed to be accessible from the outset, they avoid incurring additional costs, or, if additional investment is required, these are kept to a minimum (Darcy et al., 2011). Thus, in this manual the term “accessibility” has a meaning linked to the concept of universal accessibility. In particular, the accessibility pillar of the DTI model refers to its management and implementation in the destination, to streamline designs and simplify life for everyone, enabling anyone to enjoy the tourist experience (Buhalis & Darcy, 2011). In the Spanish model of smart destination management, good accessibility planning makes it possible to meet the expectations of a greater number of tourists (Yau et al., 2004; Darcy, 2010), improve their experiences during their visit (Darcy & Dickson, 2009), and, ultimately, enhance the tourism competitiveness of the destination (Domínguez Vila et al., 2015; Ivars-Baidal et al., 2023; Rucci et al., 2022).

Throughout this chapter, it is explained how destinations that wish to be accredited as DTI can improve accessibility in each of the links that make up the tourism

value chain and characterize their tourism attractions, creating value for tourists, as described by Professor Vila in the box below. From this idea of accessibility “at the destination, and of the destination’s resources,” the two areas of action around which the accessibility pillar of the Smart Tourist Destinations strategic management model is organized take on full significance: “Accessibility management in Smart Tourism Destinations” and “Accessibility implementation in Smart Tourism Destinations.”

Challenges for Accessibility Management in Tourism

Accessibility in tourism has traditionally been linked to people with disabilities, and more recently to the elderly, as 35% of people over 65 have a disability (Fuguet, 2008). However, accessibility should be understood as the provision of benefits by all, for all, for between 20 and 30% of the world’s population (Darcy & Dickson, 2009; ESCAP, 2003). Accessibility is a transversal element that should be present throughout the tourism chain, since inaccessibility in any of its links destroys the possibility of tourists enjoying the product or service (UNWTO, 2014a). Adapting many tourist resources is unfeasible, but this limitation can be compensated by the training provided to, and the empathy of, the relevant staff, and by taking simple measures based on specialist advice (UNWTO, 2014a, 2015). Accessibility in tourism represents a quality standards-based market opportunity to access, because of population aging, a continuously growing segment (WHO, 2018). Moreover, the segment stay longer, in the low season, spend more, often travel with companions and are more loyal to destinations (Domínguez et al., 2011, 2013). Nonetheless, account must be taken of the new challenges that the sector faces, based on the virtualisation of services and the ubiquity of the internet, the consequence of which is that disabled people and the elderly disproportionately suffer double discrimination by being deprived of leisure/free time and by having to acquire and adapt to new technologies. The lack of specific data on the internet, and problems with the visibility, accuracy, integrity and currency of online information are major drawbacks (Domínguez et al., 2020).

Accessibility, inclusion, sustainability and ICTs go hand in hand in the tourism field (Buhalis et al., 2023). The problem is that, while at first glance it seems that global goodwill exists to address these elements (Agenda 2030, CRPD), the reality is different, a lack of accessibility-focused governmental planning and legislation and limited budgets result in a paucity of relevant policies and insufficient resources. It’s time for change.

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Like the rest of the chapters dedicated to the other pillars, this one follows a similar structure (Fig. 1). Thus, after outlining the concept of accessibility that underpins the methodological framework of the DTI Model, each of the areas of action in terms of accessibility in which the DTI must work is presented, with their corresponding requirements and indicators. This chapter also illustrates some of the common recommendations made to destinations to help them meet the requirements and indicators defined for each policy area.

Finally, the chapter concludes with a reflection by the SEGITTUR team on the main lessons learned during the 10-year period in which the DTI Model has been implemented with the destinations. As in the case of the other chapters, readers can also find the references cited in the text at the end of the chapter, offering them the opportunity to explore the topics covered in greater detail if they wish.

2 The Concept of Universal Accessibility in Tourism

As mentioned earlier, this chapter is about Accessible Tourism, specifically how proper management of universal accessibility can make it easier for anyone, especially those with accessibility needs, to enjoy the tourism experience (Cockburn-Wootten & McIntosh, 2020; Connell & Page, 2019; Lam et al., 2020). UNWTO (2014) defines Accessible Tourism as tourism that is planned and developed considering the set of requirements and accessibility needs of tourists, so that all tourists can enjoy their experience in comfort and safety, and on equal terms. From this concept of tourism accessibility, its management includes all the initiatives implemented in the destination to make it more inclusive, responsible, and, in short, universally accessible (Fennell, 2022). Therefore, good accessibility management at the destination promotes tourists' enjoyment of its attractions under equal conditions, in line with the principles of social responsibility set out in the SDGs (OMT, 2019). Universal accessibility is a fundamental human right, as stated in the Global Code of Ethics for Tourism, approved by the UNWTO in 1999, and should therefore be a priority to incorporate in destination management. Internalizing these values in tourism management means that destinations are managed with more social and commercial intelligence, contributing to tourism activity acting as a tool for social integration (Abascal et al., 2016; Scheyvens & Biddulph, 2018). Therefore, the development of the concept of accessibility in tourism fosters improved quality in a destination's tourism attractions, adapted to the needs of all people (Gillovic & McIntosh, 2018).

In accordance with the above, it is up to the Destination Management Organization (DMO) to work on improving the management and implementation of accessibility, in order to remove those barriers that hinder tourist access and interaction at the destination (McKercher & Darcy, 2018). At the same time, a destination should adopt the principles of universal accessibility when planning its tourism attractions, developing marketing and promotional activities, communicating with tourists, designing channels and ways of interaction between tourists, service providers, and the destination's host population, and so forth. To these ends, information and communication technology becomes an important ally, as it provides very effective tools to promote the improvement of universal tourism accessibility, through innovative technological solutions that incorporate accessibility among their criteria, in order to facilitate access for all people to the digital content that the destination offers (Casais & Castro, 2021; Fernández-Díaz et al., 2022; Tlili et al., 2021). Therefore, the accessibility pillar of the DTI Model also relies on the innovation and technology pillars to achieve its objectives. In addition, making tourism more accessible results in greater social sustainability for the destination (Rodrigues et al., 2023), so these two pillars are also closely related. Finally, DMOs will play a leading role in reinforcing the values behind the principle of universal accessibility among destination stakeholders, both public and private, ensuring that it is always considered as a cross-cutting element when designing the destination's tourism services and attractions. Thus, the governance pillar is connected to the accessibility pillar, closing the virtuous management circle that drives the DTI Model.

3 The Management of Tourism Accessibility in Spain

As explained in the previous section, accessible tourism promotes inclusive tourism, characterized by an array of products and services whose conditions of accessibility allow any person to enjoy tourism in an autonomous manner and under equal conditions.

The UNWTO (2014a, 2014b) explains in its *Accessible Tourism Handbook* how accessibility management refers not only to regulating physical environments—eliminating architectural barriers that hinder access to a given place—but to all measures taken at the destination in order to improve inclusion and standardization.

Since the publication of the *Convention on the Rights of Persons with Disabilities* (United Nations, 2006), several countries have enacted laws, policies, and action plans to improve the universal accessibility of environments, promoting the inclusion and social participation of all citizens (European Commission, 2010). In Spain, the *General Law on the Rights of Persons with Disabilities and their Social Inclusion* defines *universal accessibility* as “a condition that must be met by environments, processes, goods, products and services, as well as objects, instruments, tools and devices, in order to be understandable, usable and practicable by all people in conditions of safety and comfort and in the most autonomous and natural way possible. It presupposes the strategy of ‘universal design or design for all persons’, and is without prejudice to the reasonable adjustments to be adopted” (Royal Legislative Decree 1/2013, p. 11). Recently, Law 6/2022 of 31 March, article 2.k, explicitly incorporates cognitive accessibility into the definition of universal accessibility contained in the Royal Decree of 2013. According to this law, cognitive accessibility enables easy understanding, communication, and interaction for all people (Ministerio de Sanidad, Servicios Sociales e Igualdad. Gobierno de España, 2013). Cognitive accessibility is implemented and made effective through easy reading, alternative and augmentative communication systems, pictograms, and other human and technological means available for this purpose. When applied to the tourism sector, the implications of current legislation are specified in the need to promote inclusive tourism or “*tourism for all people*” which, based on the concept and principles of *Universal Design*, seeks to design tourism destinations whose spaces, products, and services are not only adapted to disabled people, but can also be enjoyed on equal terms by all tourists. It is therefore necessary to consider the set of accessibility requirements and needs of any person, taking into account all the circumstances that, from a physical, sensory, or cognitive point of view, whether temporarily or permanently, condition the relationship between people and the environment in which they live.

When designing the accessibility of a tourism destination, it will be important to be clear that its tourism attractions are aimed at people with different needs, the variety of which will determine the requirements necessary to universalize the enjoyment of a tourist experience in a destination. To establish the accessibility criteria or requirements of the destination, it is advisable to consider human diversity, the different situations of the traveler (alone, in a group, etc.) and their different needs (AlKahtani et al., 2015). These needs are conditioned by factors such as the

aging of the population, mobility, sensory or cognitive difficulties, as well as reduced functionality in one or more body systems which, in some cases, have consequences that are not very noticeable (Portales, 2015). Considering all these factors, it will be possible to promote quality tourism, where accessibility is a tool that does not segregate or separate, developing tourism attractions that are accessible to all, without distinction (Darcy et al., 2020). This inclusive tourism concerns and benefits everyone, it is essential for a growing part of the population (Santana-Santana et al., 2021), and it means adding value for all people, as not only citizens with disabilities need accessible environments (European Commission, 2014). The increasing average age of the population means that more and more people are experiencing mobility, sensory, and cognitive difficulties related to their advanced age (Lee & King, 2019). Circumstances that progress at the same speed as life expectancy does. In Spain, it is expected that the population over 64 years of age will make up 26% of the population by 2037 (INE, 2022), so the challenge of designing accessible spaces is not a minor or isolated challenge, but rather, it affects the entire population.

Universal design also offers an opportunity for the tourism industry (Dominguez et al., 2013; Lyu, 2017) since it makes it possible to provide higher-quality services that are attractive to a broader, growing market that is not being fully attended to. However, beyond a commercial opportunity, improving accessibility to tourism resources is a social responsibility recognized by the UNWTO (1999) in the Global Code of Ethics for Tourism.

In Spain, the right to universal accessibility, set out in Royal Legislative Decree 1/2013, is being recognized and applied more and more, also thanks to the work of the Spanish associative movement, representing disabled people, enabling notable progress in society's awareness, arbitrating a basic social consensus on accessibility as a right. Thus, there are currently more and more tools and participatory mechanisms for the design and assessment of the solutions proposed by the tourism industry. It is worth noting the publication of the non-binding standard UNE-ISO 21902:2021 Tourism and related services. Accessible tourism for all. Requirements and recommendations, drawn up by the *Technical Committee 170 Universal Accessibility and Design for All*, which sets out the specific adaptations that must be met when designing accessible tourism products, services, and spaces. However, in order to advance in this area, it is necessary to continue promoting and stimulating the dialogue between the supply and demand of accessible tourism services, in order to adjust the supply to the demand, procuring the services that are needed and that must also be legally provided.

4 The Pillar of Accessibility in the Strategic Smart Destination Management Model

In view of the above, smart destinations should have accessibility conditions that are appropriate to the needs of all people, facilitating access to all types of products, services and cultural, nature, or leisure activities, regardless of the characteristics,

abilities or conditions of the potential visitor (Michopoulou et al., 2015). Smart Tourism Destinations will encourage the development of tourism that allows access, use, and enjoyment for all people, without exclusions, guaranteeing the right to equal opportunities to enjoy the environments, goods, services, products, technologies, etc. in the safest, most comfortable and most autonomous and natural way possible (Gretzel et al., 2015).

The application of universal accessibility in DTI Model presupposes the application of the “universal design or design for all people” strategy in the tourism products and services offered.

As mentioned, universal accessibility is not only a response to a fundamental human right, but also a basic element in the perception of the quality of a destination, representing a business opportunity for the entire sector, fostering deseasonalization and improving the image of the destination by positioning itself as socially responsible, in line with some of the objectives pursued in the sustainability pillar of the DTI Model. The accessibility pillar of the Smart DTI Model is also related to the innovation and technology pillars in the sense that innovative technological development makes possible solutions that can be useful for improving accessibility in information and communication aimed at tourists, in mobility and, in general, in the tourist experience at the destination. Finally, the accessibility pillar will be promoted by the governance pillar of the Smart Tourism Destinations model, which promotes the participation of all agents interested in tourism development, involving citizens with accessibility needs in the co-creation of value with companies, designing tourism services under the premises of universal design.

The following section develops the Accessibility pillar, within the framework of the DTI methodology, which covers two areas of action, integrating 17 requirements and 43 indicators, with the accessibility pillar weighing 18% of the total model.

5 Areas of Action, Requirements, and Indicators as Part of the Smart Destination Accessibility Pillar

As in the case of the other chapters dedicated to the pillars of the strategic smart destination management model, below, detailed tables are provided containing the requirements and their corresponding compliance indicators by work areas.

5.1 Area of Action 1: Management of Accessibility in the Smart Destination

The area of Accessibility Management is responsible for assessing the policies and plans that are developed in the destination and the way in which the different actions are coordinated and planned. To this end, this area identifies four aspects of the destinations to be assessed: Regulations and Planning; Management Capacity; Mechanisms and Management Tools; and Actions to Promote Accessibility.

Within the definition of *policies and plans*, the Destination Policy is evaluated, in accordance with the requirements established by the Standard UNE 178501, “*Smart Tourism Destination Management System*,” and the legislation and regulations in force, which provide the basis for developing programs and plans for any visitor to access the services and products that the destination offers.

In terms of *management capacity*, the information provided by the destination is used to judge whether the destination has the effective capacity to carry out the approaches and strategies set out in the planning, with the aim of effectively implementing the short-, medium-, and long-term measures established to improve accessibility.

In relation to *management mechanisms*, the existence of a real coordination between the main stakeholders in the sector, including all agents in the public and private sectors and the citizenry, and whose main function is to transfer the needs of the interested parties to the management plans and mechanisms, is valuable. Using management tools, clear and measurable objectives must be set to improve accessibility in the destination, incorporating measures that provide the necessary resources for the implementation of the actions.

In terms of *actions to promote and boost accessibility*, valuable initiatives are those referring to the development and introduction of technological and/or innovative solutions that improve the accessibility of the destination, and, therefore, the tourist experience; the implementation of promotional actions of the destination that position it as accessible; or support for the private tourism sector, through aid mechanisms or training initiatives in accessibility for the private tourism sector.

This work area 1 does not prevent destinations from also implementing other tourism planning and marketing certifications such as ISO 9001, ISO 14001, and ISO 45001 standards, as well as being integrated into all the policies, plans, and programs for tourism development of the destination included in the other pillars of the DTI Model.

The different requirements established within the area of action, with their respective indicators, are detailed in Table 1.

Table 1 Pillar of accessibility in the DTI Model: Area 1 requirements and indicators

Accessibility, area 1: management of accessibility in the destination	
REQUIREMENT 1: TECHNICAL REGULATIONS ON ACCESSIBILITY	
Indicators	Enforcement of accessibility regulations (100%)
	Mandatory regulations apply in the areas of work promoted by the manager Building Permits (private sector) and licenses to open establishments: +40%
	Complemented by local regulations (ordinance / instructions): +30%
	Complemented by other technical documents (standards, guides, technical manuals): +30%
	None of the above: 0%

Table 1 (continued)

Accessibility, area 1: management of accessibility in the destination	
REQUIREMENT 2: PLANNING ON MATTERS OF ACCESSIBILITY	
Indicators	<p>Inclusion of accessibility in tourism planning (100%)</p> <p>There is an updated accessibility plan that is less than 10 years old, whose building scope includes at least the 5 main tourism attractions of the destination and its urban scope includes at least the main urban connection routes between these points of interest: +50%</p> <p>Accessibility is included in tourism planning documents and some initiatives are put into practice: +35%</p> <p>There are other updated planning documents (< 5 years) that include references to accessibility: +15%</p> <p>There is no plan, nor any other documents: 0%</p>
REQUIREMENT 3: THE DMO HAS SUFFICIENT MEANS FOR ACCESSIBILITY MANAGEMENT	
Indicators	<p>Existence of a specific area or technical office for accessibility (30%)</p> <p>Yes: 30% No: 0%</p> <p>Assignment of human resources to the different areas to work on accessibility matters (35%)</p> <p>Staff assigned: 35%</p> <p>Staff not assigned: 0%</p> <p>Existence of economic means (35%)</p> <p>There are budget items dedicated to accessibility actions: 35%</p> <p>There are no budget items dedicated to accessibility actions 0%</p>
REQUIREMENT 4: STAFF TRAINING IN ACCESSIBILITY	
Indicators	<p>Training courses on accessibility for managing body staff involved in initiatives related to accessibility and tourism (100%)</p> <p>Participation: At least 20% of the staff take training courses: +35%</p> <p>Frequency: at least 1 course has been taught in the last 2 years: +35%</p> <p>Participation: at least a significant number of hours is accredited (>30 h in 2 years): +30%</p> <p>No training has been carried out in the last 2 years: 0%</p>

(continued)

Table 1 (continued)

Accessibility, area 1: management of accessibility in the destination		
REQUIREMENT 5: SUFFICIENT KNOWLEDGE ABOUT THE ACCESSIBILITY OF THE DESTINATION		
Indicators	Existence of a technical diagnostic of accessibility for points of tourist interest within the managing body's jurisdiction (30%)	
	Age of diagnostic less than 10 years: +15%	
	Covers more than 80% of the points of tourist interest: +15%	
	Not in place: 0%	
	Existence of an inventory on the accessibility of tourism resources (public and private) of the destination (30%)	
	Inventory age less than 10 years: +15%	
	Covers more than 80% of the total resources identified in the destination: +15%	
	Not in place: 0%	
	Coverage of the tourism value chain through accessibility actions (40%)	
	The value chain is covered: 40%	
	Not covered: 0%	
	REQUIREMENT 6: MECHANISMS FOR THE MANAGEMENT, DEVELOPMENT, AND MONITORING OF ACCESSIBILITY ACTIONS	
Indicators	Existence of accessibility commission/board (60%)	
	Participation: Representation of 3 groups (technicians, politicians, and citizen entities / vulnerable groups): +20%	
	Effectiveness: Monitoring of accessibility actions: +20%	
	Frequency: At least 2 meetings in the last 2 years: +20%	
	Not in place: 0%	
	Consideration of accessibility in the bidding specifications (40%)	
Has been considered: 40%		
Has not been considered: 0%		
REQUIREMENT 7: ACCESSIBILITY IN SAFETY AND EMERGENCIES		
Indicators	Identification of accessible emergency infrastructures (25%)	
	Yes: 25%	No: 0%
	Consideration of accessibility explicitly in the self-protection plans for destination resources (infrastructures or activities) (25%)	
	Yes: 25%	No: 0%
	Assessment of accessibility in destination protocols and measures in exceptional situations for non-residents (25%)	
	Yes: 25%	No: 0%
	The managing body of the dti has measures for prevention and safety against health risks that are accessible in the following unforeseen situations: signage, use of devices, information, and protocols (25%)	
	Yes: 25%	No: 0%
REQUIREMENT 8: STAFF TRAINING IN ACCESSIBILITY		

Table 1 (continued)

Accessibility, area 1: management of accessibility in the destination	
Indicators	Relationship With Associations Or Entities In The Accessibility Environment (50%)
	Plurality: People with physical, visual, hearing, or cognitive disabilities, the elderly: +25%
	Current: With at least one gathering or meeting in the last 2 years: +25%
	There is no relationship with associations or entities in the environment: 0%
	Existence Of An Active Accessibility Incident Management Mechanism (50%)
	In place: 50%
	Not in place: 0%
REQUIREMENT 9: THE MANAGING BODY ENCOURAGES ACCESSIBILITY IN THE PRIVATE TOURISM SECTOR	
Indicators	Promotion of aid programs and support campaigns, prizes, and assessment of accessible resources (35%)
	Yes: 35%
	No: 0%
	Organization of support campaigns, awards, and evaluation of accessible resources (35%)
	Yes: 35%
	No: 0%
Training initiatives on accessibility for the private tourism sector (30%)	
Yes: 30%	
No: 0%	
REQUIREMENT 10: PROMOTION OF ACCESSIBILITY IN THE DESTINATION	
Indicators	Public awareness campaigns on accessibility (55%)
	Yes: 55%
	No: 0%
	Promotion as an accessible destination (45%)
	Promotion is carried out through different promotion channels: +15%
	Promotion includes infrastructures and activities: +15%
In addition to accessible vacation tourism, it includes at least one other type: MICE, sports, etc.: +15%	
No promotion: 0%	
REQUIREMENT 11: PROMOTION OF ACCESSIBILITY DEVELOPMENT THROUGH TECHNOLOGICAL/INNOVATIVE SOLUTIONS	
Indicators	Promotion of new initiatives that improve accessible information and communication (50%)
	Yes, several initiatives have been carried out in the last 5 years: +25%
	Yes, but more than 5 years ago: +25%
	No new initiatives have been promoted: 0%
	Promotion of new initiatives that improve accessible mobility (50%)
	Yes, several initiatives have been carried out in the last 5 years: +25%
Yes, but more than 5 years ago: +25%	
No new initiatives have been promoted: 0%	

5.2 Area of Action 2: Implementation of Accessibility in the Smart Destination

According to the theoretical framework described in the first part of the chapter, Smart Tourism Destinations must improve accessibility by adopting a comprehensive approach when designing their strategies, promoting the creation of accessible environments, from a dual perspective—the accessibility of physical environments, but also that of digital environments—and all this respecting and considering the needs of residents and visitors. To achieve this, this area analyses the accessibility of the destination in the following aspects: Information; Transportation; Natural Environments; Urban Public Space; and Other Points of Tourist Interest. All of these make up the tourism accessibility value chain. Failure to comply with the accessibility conditions in any of these links in the chain may lead to an interruption, dissatisfaction, or failure in the provision of the service and impairment of the tourist experience at the destination due to the lack of accessibility. For this reason, it is important to systematize accessibility management so that the destination is accessible, improving the destination's competitiveness.

In order to perform initial diagnostics and correctly assess accessibility at the destination, it is essential to observe it in situ, where the tourist will enjoy their experience. Therefore, specific elements that make up the tourism attractions of the destination and its accessibility conditions are considered, such as: pedestrian routes, street furniture and signage in built-up areas; natural spaces and beaches, as well as the services present in these areas and aimed at people with accessibility needs; solutions and measures to enable people with mobility, sight, hearing, or comprehension difficulties to visit the main points of tourist interest; tourist offices and other tourist information points; public, regular, and occasional transport service, in terms of infrastructures, vehicles, and information; activities and events of tourist interest and of high attendance, from the point of view of accessibility conditions for the public, as well as for those people who actively participate in them.

For these reasons, the particularities and needs of each category of tourism services have been carefully detailed in order to facilitate a complete diagnostic of the degree of accessibility of the destination, embodied in the different requirements defined for this area. Regarding digital accessibility, the digital components of the Smart Tourism Destinations are analyzed, which include the tourism promotion website of the destination, applications for mobile devices, and any digital tool designed for the use of visitors and tourists, which must comply with accessibility conditions that allow anyone to interact with them. In the case of web pages and mobile apps, it will be verified that they comply with the WCAG 2.1 (Web Content Accessibility Guidelines) for accessible content of the World Wide Web Consortium (W3C) and, therefore, satisfy success criteria levels A and AA.

The different requirements established within the area of action, with their respective indicators, are detailed in Table 2.

Table 2 Pillar of accessibility in the DTI Model: Area 2 requirements and indicators

Accessibility, area 2: implementation of accessibility in the smart destination	
REQUIREMENT 12: ACCESSIBILITY OF THE WEBSITE AND THE TOURISM APP	
Indicators	Level of compliance in accessibility (wcag 2.1): (100%)
	At least AA Conformance level is met on the website: 60%
	Not met: 0%
	At least AA Conformance level is met on the tourism app: 40%
	Not met: 0%
REQUIREMENT 13: INFORMATION-ADVANCE PLANNING FOR USERS WITH DIFFERENT NEEDS	
Indicators	Accessibility information on the website and in the tourism app (50%)
	The website includes accessibility information about the destination: 25%
	Not included: 0%
	The website includes accessibility information about the destination: 25%
	Not included: 0%
	Possibility of interaction in an accessible way for reservations, purchases, or further information on special needs (50%)
Yes: 50%	No: 0%
REQUIREMENT 14: DESTINATION INFORMATION IS ACCESSIBLE	
Indicators	Assessment of accessibility information at the destination (100%)
	Ease of understanding and reading the information: +40%
	Accessible means/channels of information other than that provided by office staff: +30%
	Information on solutions to different unforeseen accessibility needs: +30%
	None of the above is true: 0%
REQUIREMENT 15: CONNECTIVITY OF INTERURBAN TRANSPORT WITH DESTINATION SERVICES/RESOURCES	
Indicators	Accessibility in main arrival/return interurban transport infrastructures (50%)
	Access: +10%
	Ticket sales: +10%
	Waiting area: +10%
	Public toilet: +10%
	Boarding area: +10%
	None of the above: 0%
	Accessible connection to public transport services/resources (50%)
With accessible local public transport: +25%	
Accessible pedestrian routes: +25%	
None of the above is true: 0%	
REQUIREMENT 16: ACCESSIBLE LOCAL TRANSPORTATION	

(continued)

Table 2 (continued)

Accessibility, area 2: implementation of accessibility in the smart destination	
Indicators	Accessibility at urban public transport stops (20%)
	Access, maneuvering, and stopping spaces (e.g., for wheelchairs): +5%
	Bus shelter position: Does not hinder other pedestrians: +5%
	Information on lines and destinations, schedules, waiting time, and incidents: +5%
	Ease of boarding/disembarking (easy approach of the bus, no parking row, good visibility etc.): +5%
	None of the above is true: 0%
	Accessibility in local public transport fleets (20%)
	Ground floor with ramp: +10%
	Reserved interior spaces (wheelchairs, the elderly, visually impaired people): +5%
	Audio information about next stop: +5%
	None of the above is true: 0%
	Coverage of local public transport routes (20%)
	The journeys cover the entire tourism area: +20%
	The journeys cover at least half of the tourism area: +10%
	The journeys cover less than half of the tourism area: 0%
Accessibility of taxi services (20%)	
Adequate supply of adapted taxi licenses (> 5% of the total number of licenses): +10%	
Possibility of prior request (by phone, app, website, etc.): +5%	
Existence of aid for adapted taxi licenses: +5%	
None of the above is true: 0%	
Accessibility in disabled parking spaces (20%)	
Supply: Sufficient (>1/40 of total): +4%	
Vertical and pavement signage (ISA): +4%	
With sufficient transfer and maneuvering spaces in disabled spaces for parking side-by-side, according to regulations: +4%	
With sufficient transfer and maneuvering spaces in disabled spaces for parking in line, according to regulations: +4%	
With no-parking accesses to the sidewalk (both in side-by-side and in-line parking spaces) or placement next to an equivalent pedestrian crossing: +4%	
None of the above is true: 0%	
REQUIREMENT 17: ASSESSMENT OF THE ACCESSIBILITY OF RESOURCES, SERVICES, AND TOURISM ACTIVITIES	

Table 2 (continued)

Accessibility, area 2: implementation of accessibility in the smart destination	
Indicators	Accessibility on beaches (12%)
	General accessibility considerations for the beach, according to regulatory criteria: +3% Equipped accessible point: +3% Existence of assisted swimming service: +3% Complementary accessibility equipment: + 3% None of the above is true: 0%
	Accessibility in natural spaces (12%)
	Accessibility in the actions prior to the nature route: +4% Accessibility on the nature route: +4% Accessibility in aid and alternative arrangements for the visit: +4% None of the above is true: 0%
	Accessibility in pedestrian routes of tourist interest (12%)
	Pedestrian routes: +3% Pedestrian crossing points: +3% Urban signage: +3% Transport connections between remote attractions: +3% None of the above is true: 0%
	Accessibility in pedestrian leisure areas (12%)
	Street furniture: +3% Interaction with urban elements: +3% Pedestrian leisure areas and rest points: +3% Play and recreation areas: +3% None of the above is true: 0%
	Accessibility in tourist office facilities (15%)
	Identification-Location: + 3% Access: +3% Visitor service point: 3+% Waiting area: +3% Elements of interaction: +3% None of the above is true: 0%
	Accessibility in urban tourist information points (9%)
	Easy identification: +3% Frontal approach and horizontal and vertical ranges: +3% Ease of use (interaction): +3% None of the above is true: 0%
	Accessibility in points of tourist interest (16%)
	Possibility of visit for people with mobility difficulties: +4% Possibility of visit for people with vision difficulties: +4% Possibility of visit for people with hearing difficulties: +4% Possibility of visit for people with cognitive difficulties: +4% None of the above is true: 0%
	Accessibility in activities and events with high attendance (12%)
	Accessibility as an audience member in activities and events with high attendance: +6% Accessibility in active participation in activities and events with high attendance: +6% None of the above is true: 0%

6 The Accessibility Pillar in Practice: Recommendations

With a view to offering an idea of the practical implications of applying the pillar in tourism destinations that aspire to be a smart destination, this section sets out, by area of action, some of the most common recommendations made to destinations after the diagnosis phase. The accessibility pillar contains “standard” recommendations for requirements with zero compliance, some of which are reflected in the following sections.

6.1 Main Recommendations, Area 1

In this area, the destination’s consideration of the technical accessibility regulations is valued, as well as the allocation of technical, human, and economic resources for its application. The strategic planning instruments for accessibility in tourism, the existence of a cross-cutting accessibility management body, the training received by the destination’s management body staff, the destination’s knowledge of the accessibility conditions of its tourism attractions, the tools for citizen participation, the promotion of accessibility through technological or innovative solutions, the promotional actions and support campaigns for the tourism sector in terms of accessibility carried out by the destination are also evaluated (Table 3).

6.2 Main Recommendations, Area 2

In area 2, the recommendations revolve around the implementation of accessibility from two perspectives: the accessibility conditions of the information of interest to tourists, provided by the destination both through digital tools and physical media, and the accessibility of the environments and resources of the destination’s tourism attractions.

Therefore, this area includes recommendations relating, firstly, to the accessibility of public sector websites and apps for mobile devices, as well as the information provided by the destination through other digital and more conventional tools capable of being used by visitors. Secondly, accessibility conditions are considered in the main areas of interest to visitors: urban itineraries, tourist offices, resources of tourist interest, local transport, activities, and events organized by the destination (Table 4).

Table 3 Examples of recommendations of accessibility pillar in the area of action 1

<p>AREA 1: ACCESSIBILITY MANAGEMENT</p> <p>REQ. 2: PLANNING ON MATTERS OF ACCESSIBILITY</p> <p><i>Consideration of accessibility in tourism planning</i></p> <p>It is recommended that universal accessibility planning tools be developed and considered in the destination's tourism planning</p> <p>To do so, it is proposed that an accessibility plan be drawn up for the municipality corresponding to the territorial area of the destination, including both the management and implementation of accessibility, and addressing at least the built environment, urban planning, mobility, and transport, information and communication</p> <p>In the same way, it is considered necessary to include accessibility in the tourism planning of the destination, by drawing up a specific tourism accessibility plan or by introducing accessibility as one of the lines of the destination's strategic tourism plan, so that it is reflected in a cross-cutting manner in all the initiatives envisaged</p> <p>Lastly, it is recommended that accessibility be included across the board in other destination planning documents, such as sustainable mobility planning, urban planning, culture, sport, and other destination areas</p> <p>REQ. 3: THE DMO HAS SUFFICIENT MEANS FOR ACCESSIBILITY MANAGEMENT</p> <p><i>Provision of human, technical, and financial resources for accessibility management</i></p> <p>It is recommended to have human, technical, and economic resources for accessibility management in the destination, essential elements so that it is not reduced to a mere project or to specific actions without continuity</p> <p>The provision of means must be carried out at a human level (staff dedicated partially or totally to accessibility matters), technical (equipment that enables the required work), and economic (systematic inclusion of items or chapters in the budgets of the destination)</p> <p>All of this can take the form of an accessibility office which, with human, technical, and financial resources, can coordinate accessibility management at the destination in a cross-cutting manner. Among other functions, such an office can carry out or coordinate the monitoring of initiatives, an advisory service, incident management, and the promotion of activities of information and advertising</p> <p>REQ. 5: STAFF TRAINING IN ACCESSIBILITY</p> <p><i>Promotion of training on universal accessibility and tourism for the staff of the destination management entity</i></p> <p>It is recommended that destination staff who have any kind of direct or indirect relationship with accessibility have adequate training in accessibility, besides the training that each person has due to their personal qualifications. This training should be job-specific and up to date. In addition, it is recommended that it should be cross-cutting (different areas), continuous (establish regularity), and of high quality (sufficient minimum content)</p> <p>It is proposed to launch training actions in two specific lines:</p> <ul style="list-style-type: none"> – Courses on universal accessibility for municipal technical staff, with the aim of reinforcing cross-cutting actions. This training should incorporate a module for attention to disabled people and specific modules on equipment, activities, and services or communication – Creation of round tables or workshops on the different actions that are being carried out at a national and international level and on the best practices that are being carried out in other destinations, so that they can serve as an example and as transmission of knowledge among experts <p>A follow-up to these initiatives should be given by organizing training sessions for municipal technical staff on accessibility in tourism and related areas: accessibility in hotels, shops and restaurants, museums, natural spaces, activities, and events</p>
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Table 4 Examples of recommendations of accessibility pillar in the area of action 2

AREA 2: IMPLEMENTATION OF ACCESSIBILITY
<p>REQ. 12: ACCESSIBILITY OF THE WEBSITE AND THE TOURISM APP</p> <p><i>Incorporation of improvements in the web accessibility of destination's tourism promotion website</i></p> <p>It is recommended to improve the accessibility of the destination's website to enable navigation for anyone, incorporating the application of the concept of accessibility to the development teams of the municipal websites following the WCAG guidelines of the WAI (Web Accessibility Initiative) of the W3C (World Wide Web Consortium). The version of the Web Content Accessibility Guidelines currently in force is 2.1, but they are updated regularly, so it is recommended to follow the guidelines of the version in force at the time the improvements are implemented</p> <p>In general, the following corrective actions should be carried out:</p> <ul style="list-style-type: none"> – Provide all images with an alternative text whose description reflects the information to be conveyed. If the image is decorative, the alternative text would be empty. If the images have text inside, the description should be able to convey the visual information in a textual manner – Correctly structure all the page headers, following a hierarchy with a single higher level and without jumps between levels, so that a screen reader can navigate without problems – Provide all the links with an understandable text, trying not to leave any empty. If the link is an image, the image should have a correct alternative text – Warning about links that open new windows – Differentiate, with a different format, texts that are linked from those that are not – Prevent links with the same text from leading to different pages. Add the necessary information to be able to differentiate them – Restructure the content of the information that appears in tables so that no column of information is lost when viewing the content. If possible, the table should be replaced by other HTML elements or the table should be labelled with titles, headings, etc.
<p>REQ. 17: ASSESSMENT OF THE ACCESSIBILITY OF RESOURCES, SERVICES AND TOURISM ACTIVITIES</p> <p><i>Overview of general accessibility measures at tourist offices</i></p> <p>It is recommended that the tourist office should approach accessibility not only from the point of view of minimum legal compliance (regulatory requirements), but also take the opportunity to approach the project as an example and reference space in terms of accessibility</p> <p>To this end, it is proposed that the following aspects be taken into account:</p> <ul style="list-style-type: none"> – Identification: easy to locate from the street, with different ways of reaching it – Access: the door should be easily identifiable, automatic, or easy to open, at street level or with an accessible ramp alternative – Visitor service point: with a preliminary approach space, a lowered section for attention free of objects, accessible for wheelchair users, etc. It should also have a magnetic induction loop and adequate lighting. If it is not close to the entrance, it should have tactile routing strips on the pavement – Waiting area: with adapted seats (backrest, armrests, adequate height, easy to get up from, etc.) and the possibility of ischial support in high-traffic areas, with an open waiting space for wheelchair users, baby carriages, people with assistance dogs, etc. – Elements of interaction: at an adequate height, with the possibility of wheelchair access, with adequate screen height and interaction buttons. It should be easy to use and have information in an audio format, useful for people who are blind or partially sighted
<p>REQ. 17: ASSESSMENT OF THE ACCESSIBILITY OF RESOURCES, SERVICES, AND TOURISM ACTIVITIES</p>

Table 4 (continued)**AREA 2: IMPLEMENTATION OF ACCESSIBILITY***Improvement of accessibility in the organization of activities and events with high attendance*

It is recommended to take into account universal accessibility measures in the organization of all kinds of events, cultural, sporting, festive, religious, etc. Some of the proposed measures are:

- For disabled persons: provide access by means of a special access for mobility vehicles; ensure that there are sufficient parking spaces reserved for Persons with Reduced Mobility (PRM) in the vicinity; study the conditions of access to the facilities and communicate in advance the need to arrive early if a massive influx of people is expected; include accessible information points and ticket offices with adapted equipment; provide adapted and sufficient toilets; reserve special spaces, places or seats where there is a stage; in the event that a large number of people are expected to attend, ensure accessibility in the main itineraries (entrance, toilets, reserved places) so that there is no danger of falls; provide an adapted transport service for connection to the venue where the event is held, informing in advance of its existence, timetables, etc.
- For people with visual accessibility needs: in addition to all recommendations for access for people with reduced mobility, access with guide dogs should be allowed; consider audio description if the event allows it or for everything that is projected in audio visuals; offer information in tactile or audio-described format, etc.
- For people with hearing accessibility needs: have magnetic induction loops; have a Spanish sign language interpreter; provide subtitles for everything that is projected on audio visuals; provide a sign language interpreter service for emergencies during the celebration of the party or event; etc.
- For people with cognitive accessibility needs: use pictograms with accessibility criteria; clear and easily understandable signage; easy-to-read event information; etc.

All communication related to the event should be accessible to everyone, both on paper and digitally

It is emphasized that these measures are taken into account for all events that, at present, do not have sufficient accessibility conditions so that all people, including people with sensory or cognitive disabilities, can enjoy the shows

7 Lessons Learned in the Field of Accessibility in Smart Tourism Destinations: Challenges

The implementation of the DTI Model in different tourism destinations has highlighted a series of aspects to be taken into account in each of the five pillars on which the methodology is based.

Specifically, in the area of accessibility, certain shared trends have been observed in many of the destinations, as reflected in the results obtained after carrying out diagnostics. These trends represent opportunities and, at the same time, challenges to be faced in the short, medium, and long term.

The purpose is, therefore, to set out below some of the main lessons learned throughout the process of accompanying destinations toward the implementation of the DTI Model in terms of universal accessibility.

The current methodology considers two areas within this pillar: the management and implementation of accessibility in a destination.

In the area of accessibility management, one of the most significant lessons learned has undoubtedly been to note the importance of collaboration between

different bodies and administrative levels of the public sector, between the public and private sectors and, in general, of the synergies between all the stakeholders that contribute to generating the tourism attractions and services of a destination.

Although destinations are increasingly aware that improving accessibility can only be achieved through a joint and coordinated effort between all the stakeholders involved and contributing to each of the links in the chain that make up the travel experience, in practice this harmonization of actions is one of the most complex challenges they face.

Consolidating it may be achieved through different mechanisms. Notable among these is the creation of stable spaces for debate and monitoring of the initiatives carried out: commissions or working groups with the participation of the different representatives of the players involved, of both a technical and political nature—from the different areas of the public administration that acts as the destination's Management Body to the private tourism sector—supported by the collaboration and contributions of the associative movement that represents citizens with greater accessibility needs.

Another common aspect for improvement identified in the field of management is the generalized lack of means and resources—technical, human, economic—dedicated to accessibility and, consequently, of a management and coordination body for the actions carried out at the destination by different areas or departments. Despite this, it has been observed that in recent years some destinations—mainly those of larger size—have been encouraging the creation of municipal accessibility offices, although not always with the cross-cutting vision required by universal accessibility, often limiting their scope of application to the urban environment and the actions implemented by the areas responsible for urban planning and infrastructures.

Even when there is a technical accessibility office, it is considered advisable for the destination's tourism area to have at least one person responsible for ensuring the inclusion of accessibility in the tourism strategy, coordinating and monitoring all actions carried out, always with the aim of facilitating and guaranteeing that everyone can enjoy their experience at the destination.

According to the results obtained by the Observatory of Universal Accessibility in Tourism in Spain, “destinations where there is involvement by the tourism area in the application of accessibility have a better result in implementing it in resources and environments, mainly public management” (Fundación ONCE, 2017, p. 173).

However, the application of the diagnostic of this pillar reveals a certain reluctance to consider accessibility as an issue that also falls within the scope of the tourism area, with a common perception still prevalent today that considers it to be linked only to areas such as social services or city planning.

Universal accessibility benefits both tourists and the local population of a destination, since it improves the tourist experience of any visitor and, at the same time, the quality of life of residents, especially if reference is made to that part of the population which, due to age, disability or other temporary or permanent conditions, has greater accessibility needs.

Yet, one of the lessons learned from the work of implementing the DTI Model still reveals a certain difficulty in terms of destinations—and the tourism sector as a whole—assimilating this concept: although over the last few years it has been possible to observe a change in how the concept of accessibility is perceived by society—and, therefore, by the tourism sector—the vision that is still most often received by destinations is that which represents accessibility as an aspect of exclusive interest to people with disabilities and, consequently, accessible tourism as a segment aimed solely at this part of the population.

A destination that wants to work on improving all the aspects included in the accessibility pillar of the DTI Model should first of all be clear about what the work to be carried out consists of, who it is aimed at and what its objectives are. In order to have this knowledge available, training and awareness-raising activities aimed at professionals in the public and private tourism sectors should be reinforced, which is one of the most important challenges in managing the accessibility of a smart destination.

These training initiatives will also improve knowledge of the needs of tourists and visitors with disabilities and thus enable them to be properly attended to.

It has also been observed on numerous occasions, especially in the case of smaller destinations, that there is a lack of appropriate accessibility planning tools, which would allow a comprehensive perspective and a cross-cutting vision to be achieved.

Moreover, for correct planning of actions, these tools should have a diagnostic of accessibility status, especially in relation to their tourism attractions. In the development of the diagnostics, it has been detected that destinations, as a general rule, tend to direct greater efforts and investment toward improving the accessibility conditions of the physical environment, which, in the DTI Model, coincides with many of the requirements of area B—that is, with the implementation of accessibility. In turn, within the actions to improve the accessibility conditions of destinations, there is a more consistent weighting of those focused on improving the physical accessibility conditions of tourism services and attractions, with numerically fewer measures focused on reinforcing accessibility from a sensory or cognitive point of view.

This need to carry out actions aimed at improving aspects related to sensory or cognitive accessibility—not only physical—has also been detected in the area of implementation and, specifically, in the requirements relating to information support and channels, tourism resources and tourist information points, nature areas, public transport, urban environments, and events organized by the destination.

Within the area of accessibility implementation, the requirements with the greatest room for improvement, according to the information gathered in the diagnostics carried out so far, are those related to technology and digital tools. The low level of compliance with these requirements is mainly due to the limited implementation of accessible technological solutions, the scarcity of solutions to improve the accessibility of the tourist experience or the widespread non-compliance with accessibility standards on websites and in mobile apps promoting tourism at destinations.

These same digital media, often not very accessible, are frequently the main sources of information for tourists. The experience in the diagnostics of the accessibility pillar shows another challenge that many destinations will have to face: improving the quality of the information provided on the accessibility conditions of their tourism attractions and of all those spaces, products, and services that form part of the tourist experience.

This type of information, in many cases absent, insufficient, or imprecise, is useful for any tourist, but essential for many people with accessibility needs who do not usually know the conditions of the tourist attractions of the destination they want to visit.

Currently, few destinations provide detailed, reliable, and up-to-date information, which are essential qualities for information to be truly useful, allowing for autonomous decision-making and trip planning without unpleasant surprises that make it difficult or even impossible.

In short, it can be deduced that the road ahead for destinations in terms of accessibility still poses many challenges to be faced, which are not always easy to overcome. However, it is reassuring to note that more and more government administrations are committing to values such as inclusion and equal opportunities, including in the field of tourism.

Perhaps one of the most striking features of the analysis and diagnostics of the accessibility pillar is the predominance of the actions carried out in the area of accessibility implementation over those related to planning and management. In other words, and with due exceptions, the prevailing tendency is still to implement actions without having adequately planned them and without the existence of figures or entities to coordinate them in a harmonized and cross-cutting manner.

Another conclusion drawn from the analysis is that tourism policies promoted by destinations committed to the Smart Tourism Destinations model, in parallel to the advances that have taken place in society in recent decades in terms of human rights, in a twenty-first century characterized by greater sensitivity toward issues such as sustainability, and after traumatic events such as the recent experience of a global pandemic, seem more inclined to consider universal accessibility as an unavoidable necessity, an essential premise to allow any person to enjoy a tourism experience with equal opportunities.

Appendix

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References

- Abascal, J., Barbosa, S. D. J., Nicolle, C., & Zaphiris, P. (2016). Rethinking universal accessibility: a broader approach considering the digital gap. *Universal Access in the Information Society*, 15, 179–182. <https://doi.org/10.1007/s10209-015-0416-1>
- AlKahtani, S. J. H., Xia, J. H., Veenendaal, B., Caulfield, C., & Hughes, M. (2015). Building a conceptual framework for determining individual differences of accessibility to tourist attractions. *Tourism Management Perspectives*, 16, 28–42. <https://doi.org/10.1016/j.tmp.2015.05.002>
- Buhalis, D., & Darcy, S. (2011). *Accessible tourism. Concepts and issues*. Chanel View.
- Buhalis, D., Leung, X. Y., Fan, D., Darcy, S., Chen, G., Xu, F., WeiHan Tan, G., Nunkoo, R., & Farmaki, A. (2023). Tourism 2030 and the contribution to the sustainable developmental goals. *Tourism Review*, 78(2), 293–313.
- Casais, B., & Castro, C. (2021). Online communication of accessibility conditions in touristic spots: the design-communication gap in Porto destination. *Journal of Hospitality and Tourism Technology*, 12(2), 196–209. <https://doi.org/10.1108/JHTT-07-2019-0096>
- Cockburn-Wooten, C., & McIntosh, A. (2020). Improving the accessibility of the tourism industry in New Zealand. *Sustainability*, 12, 10478. <https://doi.org/10.3390/su122410478>
- Connell, J., & Page, S. J. (2019). Case study: Destination readiness for dementia-friendly visitor experiences: A scoping study. *Tourism Management*, 70, 29–41. <https://doi.org/10.1016/j.tourman.2018.05.013>
- Darcy, S. (2010). Inherent complexity: Disability, accessible tourism and accommodation information preferences. *Tourism Management*, 31(6), 816–826. <https://doi.org/10.1016/j.tourman.2009.08.010>
- Darcy, S., Ambrose, I., Scheweinsberg, S., & Bushalis, D. (2011). Conclusions: universal approaches to accessible tourism. Chapter 19. In D. Buhalis & S. Darcy (Eds.), *Accessible tourism. Concepts and issues*. Chanel View.
- Darcy, S., & Dickson, T. J. (2009). A whole-of-life approach to tourism: The case for accessible tourism experiences. *Journal of Hospitality and Tourism Management*, 16, 32–44. <https://doi.org/10.1375/jhtm.16.1.32>
- Darcy, S., Mc Kercher, B., & Schweinsberg, S. (2020). From tourism and disability to accessible tourism: a perspective article. *Tourism Review*, 75(1), 140–144. <https://doi.org/10.1108/TR-07-2019-0323>
- Domínguez, T., Alén, M. E., & Darcy, S. (2020). Accessibility of tourism websites: the level of countries' commitment. *Universal Accessible in the Information Society*, 19(2), 331–346.
- Domínguez, T., Fraiz, J. A., & Alén, E. (2011). Turismo y accesibilidad. Una visión global sobre la situación en España. *Cuadernos de Turismo*, 28, 23–45.
- Domínguez, T., Fraiz, J. A., & Alén, E. (2013). Economic profitability of accessible tourism for the tourism sector in Spain. *Tourism Economics*, 19(6), 1385–1399. <https://doi.org/10.5367/te.2013.0246>
- Domínguez Vila, T., Darcy, S., & Alén González, E. (2015). Competing for the disability tourism market—A comparative exploration of the factors of accessible tourism competitiveness in Spain and Australia. *Tourism Management*, 47, 261–272. <https://doi.org/10.1016/j.tourman.2014.10.008>
- ESCAP (Economic and Social Commission for Asia and Pacific). (2003). *HIV/AIDS in the Asian and Pacific Region*. United Nations.
- European Commission. (2010). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions [com (2010) 636 final]. *European disability strategy 2010-2020: a renewed commitment to a barrier-free Europe*. Retrieved from https://ec.europa.eu/eip/ageing/standards/general/general-documents/european-disability-strategy-2010-2020_en.
- European Commission. (2014). *Economic impact and travel patterns of accessible tourism in Europe. Final report*. Retrieved from <http://ec.europa.eu/DocsRoom/documents/7221/attachments/1/translations/en/renditions/native>.

- Fennell, J. (2022). Seeking a deeper level of responsibility for inclusive (eco)tourism duty and the pinnacle of practice. *Journal of Sustainable Tourism*, 30(6), 1403–1422. <https://doi.org/10.1080/009669582.2021.1951278>
- Fernández-Díaz, E., Jambriño-Maldonado, C., Iglesias-Sánchez, P. P., & Heras-Pedrosa, C. (2022). Digital accessibility of Smart cities—Tourism for all and reducing inequalities: tourism agenda 2030. *Tourism Review*, 78(2). <https://doi.org/10.1108/TR-02-2022-0091>
- Fugueta, T. (2008). Europa demanda más accesibilidad. *Editur*, 07, 10–15.
- Fundación ONCE. (2017). *Observatorio de accesibilidad universal del turismo en España*. Available at: https://www.ttd-congress.com/sites/default/files/observatorio_de_turismo_110917_4.pdf
- Gillovic, B., & McIntosh, A. (2018). Accessibility and inclusive tourism development: Current state and future agenda. *Sustainability*, 12(22), 9722. <https://doi.org/10.3390/su12229722>
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: foundations and developments. *Electronic Markets*, 25, 179–188. <https://doi.org/10.1007/s12525-015-0196-8>
- INE (Instituto Nacional de Estadística). (2022). *Press release: Proyecciones de Población 2022-2072*. Publicado el 13 de octubre de 2022. Disponible en: https://www.ine.es/prensa/pp_2022_2072.pdf
- Ivars-Baidal, J. A., Celdrán-Bernabeu, M. C., Femenia-Serra, F., Perles-Ribes, J. F., & Vera-Rebollo, F. F. (2023). Smart city and smart destination planning: Examining instruments and perceived impacts in Spain. *Cities*, 137, 104266. <https://doi.org/10.1016/j.cities.2023.104266>
- Lam, K. L., Chan, C. S., & Peters, M. (2020). Understanding technological contributions to accessible tourism from the perspective of destination design for visually impaired visitors in Hong Kong. *Journal of Destination Marketing and Management*, 17, 100434. <https://doi.org/10.1016/j.jdmm.2020.100434>
- Lee, C. F., & King, B. (2019). Determinants of attractiveness for a seniors-friendly destination: a hierarchical approach. *Current Issues in Tourism*, 22(1), 71–90. <https://doi.org/10.1080/013683500.2016.1250725>
- Ley 6/2022, de 31 de marzo, de modificación del Texto Refundido de la Ley General de derechos de las personas con discapacidad y de su inclusión social, aprobado por el Real Decreto Legislativo 1/2013, de 29 de noviembre, para establecer y regular la accesibilidad cognitiva y sus condiciones de exigencia y aplicación. Boletín Oficial del Estado, n. 78, de 1 de abril de 2022, 43626–43633.
- Lyu, S. O. (2017). Which accessible travel products are people with disabilities willing to pay more? A choice experiment. *Tourism Management*, 59, 404–412. <https://doi.org/10.1016/j.tourman.2016.09.002>
- McKercher, B., & Darcy, S. (2018). Re-conceptualizing barriers to travel by people with disabilities. *Tourism Management Perspectives*, 26, 59–66. <https://doi.org/10.1016/j.tmp.2018.01.003>
- Michopoulou, E., Darcy, S., Ambrose, I., & Buhalis, D. (2015). Accessible tourism futures: the world we dream to live in and the opportunities we hope to have. *Journal of Tourism Futures*, 1(3), 179–188. <https://doi.org/10.1108/JTF-08-2015-0043>
- Ministerio de Sanidad, Servicios Sociales e Igualdad. Gobierno de España. (2013). Real Decreto Legislativo 1/2013, de 29 de noviembre, por el que se aprueba el *Texto Refundido de la Ley General de derechos de las personas con discapacidad y de su inclusión social*. BOE-A-2013-12632.
- OMT. (2019). *Global code of ethics for tourism. For responsible Tourism*. Retrieved from: https://webunwto.s3.eu-west-1.amazonaws.com/imported_images/37802/gcetbrochureglobal-codeen.pdf
- Portales, R. C. (2015). Removing “invisible” barriers: opening paths towards the future of accessible tourism. *Journal of Tourism Futures*, 1(3), 269–284. <https://doi.org/10.1108/JTF-04-2015-0018>
- Real Decreto Legislativo 1/2013, de 29 de noviembre, por el que se aprueba el Texto Refundido de la *Ley General de derechos de las personas con discapacidad y de su inclusión social*. Boletín Oficial del Estado, n. 289, de 3 de diciembre de 2013.

- Rodrigues, V., Eusebio, C., & Breda, Z. (2023). Enhancing sustainable development through tourism digitalization: a systematic literature review. *Information Technology & Tourism*, 25, 13–45. <https://doi.org/10.1007/s40558-022-00241-w>
- Rucci, A. C., Moreno-Izquierdo, L., Perles-Ribes, J. F., & Porto, N. (2022). Smart or partly smart? Accessibility and innovation policies to assess smartness and competitiveness of destinations. *Current Issues in Tourism*, 25(8), 1270–1288. <https://doi.org/10.1080/13683500.2021.1914005>
- Santana-Santana, S. B., Peña-Alonso, C., & Pérez-Chacón Espino, E. (2021). Assessing universal accessibility in Spanish beaches. *Ocean & Coastal Management*, 201. <https://doi.org/10.1016/j.ocecoaman.2020.105486>
- Scheyvens, R., & Biddulph, R. (2018). Inclusive tourism development. *Tourism Geographies*, 20(4), 589–609. <https://doi.org/10.1080/14616688.2017.1381985>
- Tili, A., Altinay, F., Altinay, Z., & Zhang, Y. (2021). Envisioning the future of technology integration for accessible hospitality and tourism. *International Journal of Contemporary Hospitality Management*, 33(12), 4460–4482. <https://doi.org/10.1108/IJCHM-03-2021-0321>
- UNE-ISO 21902. (2021). *Turismo y servicios relacionados. Accesible tourism for all. Requisitos y recomendaciones*. Available at: <https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma?c=N0066245>
- United Nations. (2006). Convention on the rights of persons with disabilities (CRPD). Available at: <https://social.desa.un.org/issues/disability/crpd/convention-on-the-rights-of-persons-with-disabilities-crpd>
- UNWTO. (2014a). Manual sobre turismo accesible para todos: Principios, herramientas y buenas prácticas – Módulo I: Turismo accesible – definición y contexto, UNWTO, Madrid. <https://doi.org/10.18111/9789284416486>
- UNWTO (2014b). Manual sobre turismo accesible para todos: principios, herramientas y buenas prácticas. Módulo II: Cadena de accesibilidad y recomendaciones. Available at: https://webunwto.s3-eu-west-1.amazonaws.com/2019-08/150520manualturismoaccesiblemoduloiiweboptacc_compressed.pdf
- UNWTO (2019). *International distinction unwto “Accessible tourism destination” (ATD 2019)*. Available at: <https://webunwto.s3-eu-west-1.amazonaws.com/2019-08/unwtoatd2019expert-committeecompositionandbiosjuly19.pdf>
- UNWTO. (2015). *Manual on accessible tourism for all. Principles, tools and best practices. Module III*. Available at: <https://www.unwto.org/archive/global/publication/manual-sobre-turismo-accesible-para-todos-principios-herramientas-y-buenaspracticasm-0>
- WHO. (2018). *Ageing report: Policy challenges for ageing societies*. EU: European Commission.
- Yau, M. K. S., McKercher, B., & Packer, T. L. (2004). Traveling with a disability—More than an access issue. *Annals of Tourism Research*, 31(4), 946–960. <https://doi.org/10.1016/j.annals.2004.03.007>

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Part III
Conclusions: Smart Tourism Management
in Practice

The DTI Model Experience: Best Practices on Smart Destination Management



SEGITTUR

Abstract This chapter illustrates how the destinations that have adopted the Smart Tourism Destination (DTI) methodology have adapted it to their territory and specific features. The goal is to provide an overview of guiding actions for those involved in the management of a destination implementing the DTI methodology. It reflects on, using success stories, the implementation of everything that underlies the recommendations and actions defined at destinations in the process of becoming a DTI, offering a practical vision to inspire destinations.

The selection of best practices has been performed drawing on more than 500 success stories, identified based on the operational best practice definition used by SEGITTUR: “a successful, effective, innovative and sustainable practice, which has been implemented, tested and validated, which is replicable and which deserves to be shared for it to be adopted by the larger plausible number of destinations”.

The selection also pursues representing all kinds of destinations—encompassing all territories from a geographical and size perspective; any type of promoter, depending on who encouraged the practice; any type of tourism products shaping its supply and position on the market—and therefore addressing a wide range of the challenges associated with its management.

1 Introduction

On the back of content block II, where details of the Smart Tourism Destination (DTI) methodology were detailed, this chapter provides different examples of how destinations that have adopted the DTI methodology and have adapted it to their territory and specific features, have developed actions that have made it possible to improve the pillars of the model in some way.

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These actions have historically been consolidated in what could be defined as a dynamic space in the form of a repository of best practices (Segittur, 2021a, 2022a). This database now features more than 500 actions, broken down by pillars and areas of the DTI methodology that undoubtedly contribute to promoting a source of knowledge amongst all those integrating the universe of destinations affiliated with this methodology and all those who sign up in the future.

This chapter presents a wide range of best practices including different types of destinations, demonstrating how the methodology can be adapted to very different territories: coastal, inland, rural, urban, emerging destinations, highly internationalized destinations, mature destinations, etc., all of them having signed up to the DTI programme and having implemented the methodology that gives meaning to this model. As the reader will see one of the faced challenges was developing an effective public–private cooperation for destination governance, Mrs. Benito, Director of the Department of Tourism, Culture and Sports at the Spanish Confederation of Business Organizations, shared her reflections on this issue at the box below.

Vulnerable and Resilient: Together at the Service of Everybody

If somebody were to ask us what we understand by public-private collaboration (PPC), depending on the context, the person asking the question and the person answering the question would have a different answer. EUR-LEX, the European Union's service dedicated to publishing legislative texts, indicates in its green paper on public-private collaboration that, without Europe-wide definition, in general it refers to the different types of cooperation between the authorities and the business world, the objective of which is to guarantee the financing, construction, renovation, management or maintenance of an infrastructure or the provision of a service.

If you read that document further, it indicates that over the past decade, this has been an expanding practice. There are several reasons for this. One of them lies in the desire to further harness the private sector's knowledge and operating methods within the framework of public life. The *raison d'être* of our organisation, the CEOE, is the transfer of private knowledge to the public sphere. It is, therefore, the more general progression of the role of the State in the economy, switching from direct operator to organiser, promoter, regulator, controller and, in some cases, tutor. Not all functions must be presented at the same time in a given project or action.

Against this backdrop, Smart Destinations are one of the collaborative practices that began a decade ago, today transcending Spain's national borders on account of their success. A tourism destination consists of a complex ecosystem. Public and private agents work side by side in a space where public management powers are distributed in various stages. Fragmentation is commonplace. The dismemberment of the public framework and the micro-segmentation of the private framework, which is mainly made up of micro enterprises. You could say that tourist destinations are vulnerable territorial entities on account of the variety of activities that take place there.

This context required a response to boost the competitiveness of these territories and guarantee the customer experience focussing on two aspects: their overall satisfaction and coexistence with local residents. This purpose would be achievable if technology was placed at the service of the destination to improve the management of public spaces and infrastructures.

The results are as follows: more than 400 destinations, almost 100 partner companies, 4 international observers and 87 institutional members. This represents another area in which progress has been made, through the creation of a network that now has more than 600

members, one more step in the PPC. Individual action units come together to share knowledge, export best practices and anticipate errors or difficulties based on accumulated experience. A network that boasts a Catalogue of Technological Solutions that brings together a total of 169 solutions and services categorised in line with the pillars of the Smart Tourism Destination model: governance, sustainability, innovation, technology and accessibility.

I honestly believe, without being condescending, that we can congratulate ourselves on the project. Together at the service of everybody, conjugating the essential verbs for their correct inflection. Collaborating, cooperating and sharing to move from vulnerability to resilience.

—Inmaculada Benito

Director of the Department of Tourism, Culture and Sports
at the Spanish Confederation of Business Organizations (CEOE)

This chapter is broken down into an initial methodological section, which defines (1) the criteria that have been considered in selecting the best practices (2) and a summary table of the practices presented in the rest of the chapter. After looking at the methodology, we provide details, for each pillar and area of action, preceded by a short text to contextualise each of the pillars, examples of best practices, real cases of improvement and the strategies that have been successfully designed and implemented in different territories. Finally, the chapter concludes by offering the reader a series of references to expand on the information provided in this appendix.

2 Methodology

Details of the criteria employed to select the series of best practices presented in this chapter are provided below. The objective that guided the selection of best practices was to represent a variety of cases adopted by the destinations applying the Smart Destination methodology, in the hope that these best practices would inspire and be extrapolated to other destinations. The final section of this heading lists the different best practices, grouped by pillars and areas of action into which the DTI methodology is structured.

2.1 Selection Criteria

The selection of best practices responds, first of all, to a dynamic process that SEGITTUR embarked upon with the challenge of seeking the conceptualisation of best practices that is adequate and adapted to the context of the tourism destinations and more specifically to smart destinations. With this in mind, the definition sets out that a practice cannot be considered a best practice *merely because it is defined as good in itself or defined as such by the destination itself; rather it must have been demonstrated that it works well and offers strong results, and is therefore recommended as a model for others to apply. This is a successful experience,*

which has been tested and validated, in a broad sense, which has been repeated and which deserves to be shared for it to be adopted by the highest possible number of destinations. The concept includes a series of specific features that this best smart destination practice must have for it to form part of the dynamic space mentioned above:

- **Innovative:** develops new or creative solutions.
- **Replicable:** serves as a model for developing policies, initiatives and actions in other destinations.
- **Sustainable:** given their social, economic and environmental requirements, they can be maintained over time and have long-lasting effects, in line with the United Nations Sustainable Development Goals.
- **Effective:** demonstrates a positive and tangible impact on the improvement, although it is not always possible to measure the impact of the improvement with the desired depth.
- **Implemented:** the best practice must have been in place in the past or at present.

In addition to the criteria implicit in the definition itself and the specific nature, other elements have been taken into account as part of the selection, such as:

- All best practices belong to destinations that have gone through the diagnosis process and action plan in relation to the smart destination methodology.
- The balance between the different types of destinations, local entities, population sizes and geographical areas, including examples of associations, regions, towns and cities, both at an international and national level.

From the perspective of sources of information, the database containing more than 500 best practices available in SEGITTUR has been chosen, as well as the different publications promoted in this medium as regards the best practices that provide the best examples of each of the pillars of the methodology.

Taking this into consideration, a total of 19 best practices have been selected, and subsequently verified with the destinations involved. This selection includes best practices in all the pillars of the DTI methodology, as well as identifying a representative selection for each area. Each of them is represented in a file format, offering a 360° vision in a reduced format, including a description and a brief context of the framework for its implementation, type of destination, recipient(s) to whom it is directed and the joint responsibility or contribution of each best practice to the Sustainable Development Goals (SDGs).

The classification established by the type of destination and recipient is as determined by SEGITTUR and has been used as such up until now in the different publications, reports and best practice guides. From the perspective of destination type, the following classifications have been chosen: cultural and urban, nature and sport and niche and beach. Finally, in relation to the agents to whom the action included in each practice is aimed at, they have been classified as follows: administration and government, tourism provider, tourist or resident.

It is hoped that this summary of actions will serve as guidance and stimulus to bring together all stakeholders that participate in the construction of a destination, whether through management, planning, provision of services and resources or mere observation and enjoyment. Based on these success stories, it aims to show how the smart destination methodology can be applied in a more practical and realistic way, helping to embark upon a change that considers tourism as a tool for materializing useful and beneficial transformations, both for people who visit a destination, as well as for the population and local organizations.

2.2 Summary of Best Practices Addressed in This Chapter

2.2.1 Governance Pillar

- Area 1. Strategic vision and implementation: Strategy and plan of actions in tourism and marketing plan. Gijón, Asturias.
- Area 2. Efficient management: Smart Destinations Office, Technical Office of Innovation and Intelligence in Benidorm. Benidorm, Region of Valencia.
- Area 3. Transparency and participation: Participation of the private sector in the development of local tourism policy in the Goierri region. Goierri region, Basque Country.
- Area 4. Responsibility and control: District Tourism Quality System in Bogotá—Capital Tourism Quality Circle. Bogotá, Colombia.

2.2.2 Innovation Pillar

- Area 1. Innovative governance: 2022–2025 Logroño Enópolis Strategic Plan. Logroño. La Rioja.
- Area 2. Innovation activities: Social innovation plan at Malaga City Council. Malaga, Andalusia.
- Area 3. Innovation ecosystem: Tourism entrepreneurship and innovation ecosystem in Valencia. Valencia, Region of Valencia.

2.2.3 Technology Pillar

- Area 1. Technologies applied to governance: Open Santander. Open data portal aimed at the business fabric and citizens. Santander, Cantabria.
- Area 2. Technological infrastructures and connectivity: Smart sensors with Deep Learning technology for people counting and capacity control in Salou. Salou, Catalonia.

- Area 3. Technologies for Smart Tourism Management: Technology applied to knowledge. Tenerife tourism dashboard. Tenerife, Canary Islands.
- Area 3. Technologies for Smart Tourism Management: Cerecina chatbot, an innovative element in marketing the destination. Valle del Jerte association, Extremadura.

2.2.4 Sustainability Pillar

- Area 1. Tourism sustainability management: Plan for integrating tourism with local residents in Salamanca. Salamanca, Castile and Leon.
- Area 2. Conservation, improvement and recovery of cultural heritage: The key role of the Cuenca city consortium in the conservation of the destination's cultural heritage. Cuenca, Castile-La Mancha.
- Area 3. Conservation and improvement of the environment: Vitoria-Gasteiz green belt: sustainable urban development. Vitoria-Gasteiz, Basque Country.
- Area 4. Socio-economic development and circular economy: Forming networks, sustainable food and support for zero-km in the city of Murcia. Murcia.

2.2.5 Accessibility Pillar

- Area 1. Management of accessibility in the destination: Means for managing accessibility in Palma. Palma, Balearic Islands.
- Area 1. Management of accessibility in the destination: Assistance mechanisms for improving accessibility in Torroella de Montgrí—L'Estartit. Torroella de Montgrí—L'Estartit, Catalonia.
- Area 2. Implementation of accessibility in the smart destination: Creation of CAME (Medellín Accessibility Committee). Medellín, Colombia.
- Area 2. Implementation of accessibility in the smart destination: Information on accessibility in Donostia/San Sebastián. Donostia-San Sebastián, Basque Country.

3 Best Governance Practices

This section includes four best practices that aim to offer a practical and global overview of the four areas that fall under the governance pillar. The initiatives described correspond to three national and one international destinations, one of them being a region. Furthermore, these are different types of destinations, with one

action focussing on a beach destination, another two on a cultural and urban destination and one on a nature and sports destination. Using these examples, it is possible to see how destinations overcome the challenge of quality in tourism or tourism planning, as well as the development of coordination structures to improve both efficiency and transparency and participation (Tables 1, 2, 3, and 4).

Table 1 Strategy and plan of actions in tourism and marketing plan. Gijón/Xixón, Asturias (Area I. Strategic vision and implementation)

Tourism Strategy and Marketing Plan for Gijón/Xixón	
Governance pillar	Area: Strategic vision and implementation
	Requirement: Strategic planning tools (GOB01_02) and Promotion and marketing planning tools (GOB01_03)
Description of the best practice:	
<p>The main strategic planning tool for Gijón/Xixón is the Gijón/Xixón Strategic Tourism Plan, which was prepared and structured around public–private collaboration and taking into account transparency, innovation and quality to determine the lines of work to be developed. The document is clearly oriented towards tourists and contains big data and sustainability as its core pillars. As well as establishing the objectives, the document sets out an implementation time line and monitoring indicators</p> <p>This has been used to generate the 2021–2024 Tourism Marketing Plan, prepared with the contributions of all stakeholders directly and indirectly involved in the development of tourism activity. As part of this process, interviews were conducted with 150 people considered relevant to the city. Furthermore, as part of the development of the plan, inter-institutional coordination and intersectoral cooperation were encouraged, these premises being particularly relevant on account of the cross-cutting nature of tourism and the very organisation of the public administration in Spain</p> <p>For the effectiveness of the foregoing, the public body set up the Sectorial Work Table, an entity aimed at defining the priorities for the tourism promotion of the city in which sector stakeholders are represented</p> <p>The Marketing Plan generated, as a result, contains an in-depth investigation of tourism in Gijón/Xixón as well as identifying the improvements and the needs arising from the new trends when travelling, the new requirements related to sustainability and the use of technological innovations when planning travel. This has been used to draw up an Action Plan with specific measures in the short, medium and long term</p>	
Other relevant information:	
Location: Gijon, Asturias	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 17	

Table 2 Smart Destinations Office, Technical Office of Innovation and Intelligence in Benidorm. Benidorm, Region of Valencia (Area 2. Efficient management)

Smart Office in Benidorm, Technical Office of Innovation and Intelligence	
Governance pillar	Area: Efficient management
	Requirement: Coordination structures at the Local Entity for the development of tourism activity (GOB02_06)
Description of the best practice:	
<p>The Smart Destination Office, or Technical Office of Innovation and Intelligence at Benidorm City Council, was conceived as a key tool at the service of all areas of the consistory and the Smart Destinations management body</p> <p>The functions of the Smart Destination Office include the management of innovation and intelligence in the town and the incorporation of innovative solutions that respond to the needs of the territory, through the use of Innovative Public Procurement</p> <p>Specifically, the Smart Destination Office incorporates elements of technological surveillance and competitive intelligence to optimise management, certified under UNE standard 166006 R&D&i System: Monitoring and Intelligence</p> <p>The Smart Destination Office also advocates for the application of the openness principle, promoted by the European Union. To this end, Open Data tools aimed at data transparency and its reuse by all interested stakeholders are employed</p> <p>Data management is a critical task at the Smart Destination Office; therefore, it has a technological platform that integrates all relevant data for the purposes of city management, ranging from data on infrastructures and water services, waste, energy etc. to data provided by the security forces or generated by the incorporation of new technologies in the city (sensors, Wi-Fi etc.) and data specific to tourism, such as data obtained from tourist offices. These data are interrelated, analysed and interpreted. The Smart Destination Office is also responsible for relaying the challenges generated to the action plans for the strategic pillars of the smart destination pursued by the City Council and analysing the data to monitor compliance with the proposed management indicators. It also manages pilot projects, coordinates and generates public–private collaboration models and supports all areas of the City Council through smart destination system management and monitoring software</p>	
Other relevant information:	
Destination: Benidorm, Region of Valencia	
Type of destination: Beach	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 17	

Table 3 Participation of the private sector in the development of local tourism policy in the Goierri region. Goierri region, Basque Country (Area 3. Transparency and participation)

Participation of the Private Sector in the Development of Local Tourism Policy in the Goierri Region	
Governance pillar	Area: Transparency and Participation Requirement: Public–public collaboration structures (GOB02_07)
Description of the best practice:	
<p>In 2000, after several years dedicated to tourism activity, the Goierri Tourism Agency (Goitur) was created in the Goierri region, with full powers over tourism management. This public–private agency is made up of the 18 towns in the region, the Rural Development Agency and all private companies involved in the tourism sector: accommodation, restaurants, leisure activities, museums etc.</p> <p>These members make financial contributions, thus involving both the public and private sectors. The Goierri Tourism Agency regularly organises a “polytechnical” Tourism Board, which brings together politicians and technicians from the different areas involved in tourism, as well as representatives from each sector (agrotourism, cider houses, museums etc.). Sub-sector panels are also organised, attended by businesspeople from each sub-sector: accommodation, restaurants, leisure, museums and interpretation centres</p> <p>Thanks to the efforts of the Goierri Tourism Agency, this region has served as a laboratory for tourism projects in cooperation with the Basque government. As part of this framework, a variety of initiatives have been implemented aimed at promoting quality, innovation and accessibility. One example is its recent incorporation as the first Basque region into the DTI Network (SEGITTUR). In recognition of its efforts to promote sustainable tourism, Goierri has received different international awards such as the EDEN award from the European Commission (2015), classifying the region as a European Destination of Excellence in Sustainable Tourism</p>	
Other relevant information:	
Location: Goierri region, Basque Country	
Type of destination: Nature and Sport	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 17	

Table 4 District Tourism Quality System in Bogotá—Capital Tourism Quality Circle. Bogotá, Colombia (Area 4. Responsibility and control)

District Tourism Quality System in Bogotá—Capital Tourism Quality Circle	
Governance pillar	Area: Responsibility and control Requirement: Tourism quality (GOB04_10)
Description of the best practice:	
<p>The District Tourism Quality System known as the Capital Tourism Quality Circle was created by the Bogotá District Tourism Institute (IDT). This is the first system of its kind in Colombia that is aligned with the Bogota Smart Destination model</p> <p>The system is aimed at providers of tourism services, attractions, tourism areas and stakeholders involved in the tourism sector. This initiative improves quality across 7 lines of action: business management, governance, security, innovation, technology, sustainability and inclusion, implemented through the following processes and programmes:</p> <ul style="list-style-type: none"> Process for the implementation and distinction of best practices to achieve integrated smart management Process for the implementation and verification of standards Process for continuous improvement and excellence Public–private programme to coordinate the promotion of tourism quality Quality training and technical assistance programme Programme to strengthen the marketing of high-quality services Programme for the dissemination and promotion of tourism quality Connection programme is known as the “Tourism Quality Network” Incentives programme under the slogan “Turismo con Altura” Programme for the measurement and benchmarking of entrepreneurs <p>This initiative encourages continuous improvement and a culture of excellence in the Bogotá tourism ecosystem, taking the path towards smart management and preparation to address certification processes in relation to standards that improve the market positioning of the different services</p>	
Other relevant information:	
Location: Bogotá, Colombia	
Type of destination: Culture and Urban	
Recipient: Administration and Government; Tourist	
Impact on the Sustainable Development Goals: SDG 17 and ODS 8	

4 Best Innovation Practices

This section sets out three best practices that aim to offer a practical and global overview of the three areas that fall under the innovation pillar (Segittur, 2022b). The initiatives described involve three national destinations, all of them considered as offering cultural and urban tourism, although in the case of Malaga and Valencia, the “sun and sand” aspect has an important weight in how the destination is regarded by tourists. These best practices provide an idea of how the destinations overcome

the multiple challenges that they face, ranging from factors including but not limited to the implementation of innovation in the destination's strategy and management system, as well as in innovation activities, through instruments such as innovation plans or social innovation programmes, through to the implementation of an entire innovation ecosystem to promote employment policies and the development of the local economy, generating interconnected networks whilst promoting the connection of innovation and technology (Tables 5, 6, and 7).

Table 5 2022–2025 Logroño Enópolis Strategic Plan. Logroño. La Rioja (Area 1. Innovative governance)

2022–2025 Logroño Enópolis Strategic Plan	
Innovation pillar	Area: Innovative governance Requirement: Strategy and management system for innovation in the destination (INN01_01)
Description of the best practice:	
<p>Logroño City Council has been developing a series of strategies, projects and actions for 10 years that promote the innovative transformation of the city, constructing a series of networks with economic and social stakeholders, associations, administrations and universities</p> <p>The 2022–2025 “Logroño Enópolis” strategic tourism transformation plan identifies the challenges facing the city of Logroño in achieving its strategic position as a benchmark wine tourism destination in the world, integrating cultural and heritage assets and promoting its economic and social development</p> <p>The Plan revolves around six pillars of action (culture; historical heritage; knowledge and innovation; tourism; development and social integration; and sustainability), as part of which, 31 specific actions will be performed focussing on the green and sustainable transition; improving energy efficiency; the digital transition; and competitiveness</p> <p>Thus, the main objectives are:</p> <ul style="list-style-type: none"> Creating the “Logroño” brand as an internationally renowned tourism destination in viticulture, supported by the Enorregión Rioja brand. Regenerating the historic centre of Logroño Converting tourism attractions by creating new products Transforming Logroño into a Smart Destination Improving the operational capacity to address changing tourist demands Coordinating plans and actions with regional and national tourism policies Promoting sustainable mobility <p>Assigned a budget of 15 million euros, “Logroño Enópolis” has already received state aid for the sum of 9 million euros granted as part of different tenders organised by the Ministry of Industry, Trade and Tourism under the Recovery, Transformation and Resilience Plan</p> <p>Text taken in its entirety from the Guide to best practices in innovation for smart destinations (SEGITTUR, 2023)</p>	
Other relevant information:	
Location: Logroño, La Rioja	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 8	

Table 6 Social innovation plan at Malaga City Council. Malaga, Andalusia (Area 2. Innovation activities)

Social Innovation Plan at Malaga City Council	
Innovation pillar	Area: Innovation activities Requirement: Promotion of social innovation (INN02_05)
Description of the best practice:	
<p>Since the end of 2020, the destination has been building an entire strategy around social innovation, with particular mention going to the development and implementation of the 1st Social Innovation Plan for Malaga, the creation of the InnoSocial Málaga ODS Centre that provides social innovation projects aligned with the 2030 Sustainable Development Goals (SDG) with advice and assistance, as well as the call for the Innosocial Awards, which, now in its third edition, has received more than one hundred applications. The InnoSocial Málaga ODS Centre provides participants in these awards with consulting services, mentoring, or access to financing and acceleration; participants include projects in the seed phase and other more consolidated projects, with a focus on addressing the challenges facing the city through innovation. It does so in permanent collaboration with the Arrabal-AID Association and the Malaga local government</p> <p>The development of the 1st Social Innovation Plan for Malaga, as well as the revitalisation of the Malaga ODS Innosocial Centre is financed each year as part of a subsidy that is received directly, with a specific allocation in the City Council's budget, awarded to the Arrabal-AID Association</p> <p>This financing allows all the actions included in the Plan to be performed, including revitalisation actions, the creation of spaces for the joint construction of innovative social initiatives, the implementation of pilot projects by task forces to address the proposed challenges and the promotion of the website, innosocialmalaga.es which aims to contribute to the construction of new approaches</p>	
Other relevant information:	
Location: Gijon, Asturias	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 17	

Table 7 Tourism entrepreneurship and innovation ecosystem in Valencia. Region of Valencia (Area 3. Innovation ecosystem)

Tourism Entrepreneurship and Innovation Ecosystem in Valencia	
Innovation pillar	Area: Innovation ecosystem Requirement: Promotion of the innovation ecosystem in the destination (INN03_09)
Description of the best practice:	
<p>València Activa is a foundation tasked with developing and coordinating employment policies and local economic development. It is made up of the most representative economic and social stakeholders and represents the council's entire employment and entrepreneurship proposal, with more than 600 startups that generate 140 million euros of business and around 8000 direct and indirect jobs, more than 30 pools of investors, more than 40 communities of technological knowledge and multiple coworking spaces</p> <p>One of the most noteworthy initiatives is the VLC Tech City. This project brings together different associations, SMEs, public institutions and investors, universities and other social agents involved in the development and co-creation of its strategic plan and its objective is to promote job creation and connect the entire innovative and technological ecosystem</p> <p>Another interesting initiative under the entrepreneurship umbrella is Comunidad VIT Emprende, a community that allows its members to exchange knowledge, participate in R&D&i activities, transfer technology, establish synergies through networking and maintain contact with leading entities in the world of Valencian entrepreneurship</p> <p>The VLC Startup Awards also pursue the mission of drawing attention to the most innovative proposals in the city. These awards consist of 11 categories divided by sectors, with particular mention going to the best tourism startup</p> <p>This initiative aims to consolidate the continued commitment to the recognition and visibility of innovation and tourism, as well as the search for solutions in different fields of the economy and society applied to them</p>	
Other relevant information:	
Location: Valencia, Region of Valencia	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 8	

5 Best Technology Practices

This section includes four national destination initiatives, one of which is an association. There is one example of each of the destination types defined and in three of the four cases, the administration is the recipient of the action. This demonstrates how the destinations face different technological developments assessed as part of the Smart Destination methodology (Segittur, 2021b), such as the implementation of sensors or the development of innovative communication elements such as chat-bots. One example of technological developments applied to the improvement of tourism and open government knowledge, related to open data, is also provided, with the potential of these tools is briefly addressed as well as how destinations are making use of and harnessing these tools (Tables 8, 9, 10, and 11).

Table 8 Open Santander. Open data portal aimed at the business fabric and citizens. Santander, Cantabria (Area 1. Technologies applied to governance)

Open Santander. Open Data Portal Aimed at the Business Fabric and Citizens	
Technology pillar	Area: Technologies applied to governance Requirement: Open Data Platform (Open Data) (TEC01_05)
Description of the best practice:	
<p>Santander City Council, as part of its commitment to implement open government technological tools through interoperable solutions, has developed an open data portal whose objectives include but are not limited to helping entrepreneurs and generating an ecosystem of innovation. It also represents an opportunity to create new services with the information that the city council makes publicly available to everybody</p> <p>To this end, it has an open data platform containing 78 data catalogues and 967 distributions with information from different service areas, the update frequency of which is defined in the portal, ranging from real-time to monthly, depending on the nature and variability of the information</p> <p>The data is segmented by areas including traffic and mobility, the environment and others such as population, data related to the city's economy and sectors, such as commerce or tourism</p> <p>The platform facilitates the use of the data made available and has already helped with the creation of multiple mobile applications by entrepreneurs and private users. What's more, the portal is federated at datos.gob.es, the open data initiative of the Government of Spain</p>	
Other relevant information:	
Location: Santander, Cantabria	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 9 and ODS 17	

Table 9 Smart sensors with Deep Learning technology for people counting and capacity control in Salou. Salou, Catalonia (Area 2. Technological infrastructures and connectivity)

Smart Sensors with Deep Learning Technology for People Counting and Capacity Control	
Technology pillar	Area: Technological infrastructures and connectivity Requirement: Sensorisation and management systems (TEC02_12)
Description of the best practice:	
<p>Salou City Council installed 22 smart sensors with Deep Learning technology, whose field of action spans 150 m, with a view to taking a people count to calculate the occupation of its most important natural resource, the beach, in real time</p> <p>Using these sensors, the destination processes the collected information and displays it on the accessible website platges.salou.cat without having to download an app, simply in the form of a traffic light code to quickly and visually reflect the current occupancy level of beaches</p> <p>The system's functionalities include the possibility of configuring automatic warnings that allow managers to ascertain the occupation of beaches and possible agglomerations or when capacity levels have been surpassed, thus allowing decisions to be taken to control capacity and offer greater security to visitors</p> <p>The 22 sensors are a source of highly detailed information, and use data analysis tools and Big Data to provide information that is extremely useful for the management and mobility of the town's beaches. It also provides the manager with references on visitor behaviour, facilitating the decision-making process</p>	

(continued)

Table 9 (continued)

Smart Sensors with Deep Learning Technology for People Counting and Capacity Control
Other relevant information:
Location: Salou, Catalonia
Type of destination: Beach
Recipient: Tourist
Impact on the Sustainable Development Goals: SDG 9 and ODS 11

Table 10 Technology applied to knowledge. Tenerife tourism dashboard. Tenerife, Canary Islands (Area 3. Technologies for smart tourism management)

Technology Applied to Knowledge. Tenerife Tourism Dashboard	
Technology pillar	Area: Technologies for Smart Tourism Management Requirement: Tourism Intelligence (Systems, technology and tools) (TEC03_14)
Description of the best practice:	
<p>The Department of Tourism Research in Tenerife is tasked with providing strategic knowledge about tourism and related activities, providing analyses that cover the entire chain of tourism activity. As the island's economic engine, tourism interacts with practically all other economic activities, meaning that intelligence must also cover them. The aim of its contribution of knowledge is to facilitate the integrated management of the island tourism system, using a tourism intelligence system that integrates both information directly related to tourism activity and data, information and knowledge from other sectors of activity, reflecting the transversality of the tourism activity</p> <p>To this end, different types of internal and external data sources are taken into consideration, including quantitative and qualitative data, depending on the knowledge needs required. This information is included in the intelligence system and recently created Datawarehouse, facilitating its subsequent analysis and processing, both to respond to specific management needs and to publish reports or disseminate knowledge in other formats, such as Dashboards for the purposes of strategic decision-making. This department is also involved in different research projects that are included in the intelligence system</p>	
Other relevant information:	
Location: Tenerife, Canary Islands	
Type of destination: Cultural and urban, nature and sport and niche and beach	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 9	

Table 11 Cerecina chatbot, an innovative element in marketing Valle del Jerte as a destination. Valle del Jerte association, Extremadura (Area 3. Technologies for smart tourism management)

Cerecina Chatbot, an Innovative Element in Marketing Valle Del Jerte as a Destination	
Technology pillar	Area: Technologies for Smart Tourism Management Requirement: Level of technification of Tourist Offices (TEC03_20)
Description of the best practice:	
<p>The Cerecina Chatbot is a bot implemented by El Valle del Jerte with the main aim of improving automated access to the most sought-after information about the valley, especially at peak volumes of queries (via different channels) which was difficult for the available work team to manage</p> <p>It is available on the Turismo Valle del Jerte website and on the Turismo Valle del Jerte Facebook profile, the two main channels for users to discover more about the destination. In both cases, the tourist can interact with the chatbot and resolve tourism-related queries in the area, whether related to gastronomy, plans, mobility issues, schedules etc.</p> <p>At present, the chatbot has more than 100 supported interactions and allows the user to find their answers quickly, combining both answers in the chat function itself, as well as answers where information is provided in the chat function recommending a visit to another page where further information can be obtained. The main advantage of using this chatbot for managers of Valle del Jerte is that it makes it possible to obtain information about what tourists require at all times and improve or include said information to provide a better response to tourists</p> <p>The Cerecina Chatbot also makes it possible to capture information leads, i.e. about the users accessing the website. To this end, the chatbot initially captures information on the user's age range and postcode. This provides tourists with immediate answers to their questions, whilst the destination manager improves its capacity to analyse visitors</p>	
Other relevant information:	
Location: Valle del Jerte association, Extremadura	
Type of destination: Nature and Sport	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 9	

6 Best Sustainability Practices

This section includes four best practices that aim to offer a practical and global overview of the four areas that fall under the sustainability pillar (Segittur, 2022c). The initiatives described involve four national destinations, all of them considered as offering cultural and urban tourism, although in all cases, other types of products have an important weight in how the destination is regarded by tourists. These best practices offer an insight into how destinations overcome multiple sustainable challenges including but not limited to the tourism management in the destination through sustainable awareness amongst residents and tourists, the conservation, improvement and recovery of cultural heritage through cultural heritage recovery

programmes (Segittur, 2022d) and the creation of specific organisations to assume their management, the protection of the local natural environment and its biodiversity as part of much-needed environmental conservation efforts as well as the promotion of sustainable coexistence spaces and finally the promotion of suppliers of local zero-km tourism products, services and experiences with a view to promoting the socio-economic development and circular economy of a destination (Tables 12, 13, 14, and 15).

Table 12 Plan for integrating tourism with local residents in Salamanca. Salamanca, Castile and Leon (Area 1. Tourism sustainability management)

Plan for Integrating Tourism with Local Residents in Salamanca	
Sustainability pillar	Area: Tourism sustainability management Requirement: Awareness of tourism sustainability amongst residents and visitors (SOS01_14)
Description of the best practice:	
<p>Salamanca, one of the most important exponents of heritage in Spain, has been striving for years to promote a new era for tourism in this city, pursuing the transformation towards a more sustainable and competitive destination, whilst respecting its essence and integrating local residents in everything involved in the tourist experience</p> <p>The City Council undertakes campaigns to integrate tourism into social life, involving both residents and visitors. Worth particular mention are the following initiatives:</p> <p>Tours of Salamanca, under the slogan “You are the city’s best salesperson”. Free guided tours of themed tourist routes</p> <p>Gold, Blue and Green Salamanca. Summer programme consisting of a wide range of proposals in heritage and natural settings, both during the day and at night, aimed at all audiences to enjoy the city</p> <p>The Keys to the City. Programme of guided and dramatised visits to heritage spaces and corners of the city</p> <p>Enjoy Salamanca at Christmas. Christmas programme with a variety of proposals where family productions are worth particular note</p> <p>These programmes are committed to including new spaces and tourist routes to manage the mobility of the tourist flow. Neighbourhoods of interest from a heritage perspective such as the Oeste, San Vicente and Bretón neighbourhoods are boosted as part of productions. These initiatives are performed in collaboration with the corresponding neighbourhood associations</p> <p>Work is currently underway on the Tourism Sustainability Plan financed by the Secretary of State for Tourism, the Castile and Leon regional government and Salamanca City Council; this represents a definitive step forward in terms of marketing and the creation of new tourism products, an innovative commitment to promoting heritage, as well as expanding sustainable mobility and visitor flows</p>	
Other relevant information:	
Location: Salamanca, Castile and Leon	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 8 and 11	

Table 13 The key role of the Cuenca city consortium in the conservation of the destination's cultural heritage. Cuenca, Castile La Mancha (Area 2. Conservation, improvement and recovery of cultural heritage)

The Key Role of the Cuenca City Consortium in the Conservation of the Destination's Cultural Heritage	
Sustainability pillar	<p>Area: Conservation, improvement and recovery of cultural heritage.</p> <p>Requirement: Programmes for the recovery of cultural heritage (SOS02_18)</p>
Description of the best practice:	
<p>The city of Cuenca is home to one of the main, internationally renowned monumental complexes in Spain, declared a UNESCO World Heritage Site</p> <p>With a view to strengthening and promoting its cultural and tourism development potential, the Royal Board of Trustees of the City of Cuenca was established in 2004, with a view to promoting and coordinating all actions aimed at the conservation and revitalisation of cultural heritage in Cuenca, as well as the development and promotion of the corresponding cultural and tourism activities</p> <p>The body or entity responsible for executing the agreements entered into by the Royal Board of Trustees is the Cuenca City Consortium, made up of the General State Administration, the Castile-La Mancha Community Board, the local council and the city council</p> <p>This body performs actions aimed at preserving the city's cultural heritage. It also performs the corresponding cultural and tourism activities, in turn promoting economic lines through subsidies for the organisation of conferences, workshops or similar events with a view to promoting the city</p> <p>These initiatives encompass a variety of areas, including the rehabilitation and improvement of buildings, streets and archaeological remains, the conditioning and lighting of trails, promoting sustainable alternatives for visitors and residents to partake in and the management and provisioning of direct subsidies to other entities that promote the cultural development of Cuenca as in the case of universities, foundations etc.</p> <p>This is a clear example of how to apply the premises established as part of the sustainability pillar of the Smart Destination methodology, with the City of Cuenca Consortium having promoted elements for the protection of tangible and intangible cultural heritage, as well as the conservation and recovery of cultural heritage and its relationship with tourism</p>	
Other relevant information:	
Location: Cuenca, Castile-La Mancha	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 8, SDG 11 and SDG 17	

Table 14 Vitoria-Gasteiz green belt: sustainable urban development. Vitoria-Gasteiz, Basque Country (Area 3. Conservation and improvement of the environment)

Vitoria-Gasteiz Green Belt: Sustainable Urban Development	
Sustainability pillar	Area: Conservation and improvement of the environment
	Requirement: Protection of the local natural environment and its biodiversity (SOS03_20)
Description of the best practice:	
<p>The Vitoria-Gasteiz Green Belt is made up of a group of parks around the city that has become a recreational space with an important ecological value and tourism potential, providing with city its identity and converting the project into a benchmark for other destinations, both in Spain and abroad. They are also spaces for study, work and experimentation (living lab) in the application of territorial planning formulas and measures for resolving a large number of problems</p> <p>2023 marks the 30th anniversary of the launch of the Green Belt project. During this time, the most degraded parts of the periphery have been transformed into parks with a high ecological and landscape value, some included in the European Natura 2000 Network, such as the River Zadorra and the Salburua wetlands. These wetlands have also taken one step further as part of said network, having been certified by the Nature Tourism Sustainability Recognition System, making Vitoria-Gasteiz the first urban destination in the phase of joining the Ecotourism Association in Spain</p> <p>From the perspective of public use, the Green Belt boasts excellent potential for outdoor leisure and sports. It has a circular route spanning more than 30 km and all the parks have rest areas, information elements and an extensive internal network of trails. They are also the perfect place for tourism activities and environmental education, including resources such as the Ataria Interpretation Centre and in settings such as the Olarizu Botanical Garden</p> <p>In short, this initiative is an example of ecological, landscape and social regeneration, in a city that aims to maintain its natural spaces for the benefit of residents and tourists</p>	
Other relevant information:	
Location: Vitoria-Gasteiz, Basque Country	
Type of destination: Culture and Urban	
Recipient: Resident and Tourist	
Impact on the Sustainable Development Goals: SDG 11, SDG 13 and SDG 15	

Table 15 Forming networks, sustainable food and support for zero-km in the city of Murcia. Murcia, Region of Murcia (Area 4. Socio-economic development and circular economy)

Forming Networks, Sustainable Food and Support for Zero-Km in the City of Murcia	
Sustainability pillar	Area: Socio-economic development and circular economy
	Requirement: Promotion of the suppliers of local zero-km tourism products, services and experiences (SOS04_29)
Description of the best practice:	

(continued)

Table 15 (continued)

Forming Networks, Sustainable Food and Support for Zero-Km in the City of Murcia
Huerta de Murcia is a historical region and a cultural landscape that encompasses the city of Murcia and a large part of its metropolitan area, representing a distinguishing feature of the destination
The Forming Networks Project, promoted by Murcia City Council, was conceived as a way of restoring Murcia's status as a vegetable garden (or huerta, in Spanish). It came about as part of the need to comply with the 2015 Milan Pact for promoting sustainable food systems and thus mitigating climate change
The core objective of this project is to implement a pilot innovation scheme across all processes involved in agriculture, trade, distribution and consumption of local agricultural products, with a view to promoting a change in conventional agriculture and transforming it towards a circular economy agroecology involving all sectors of the agri-food system (including local authorities, technical and academic institutions, civil society, small-scale producers and the private sector) in Huerta de Murcia
It aims to create alternatives to keep Huerta de Murcia fertile, productive and sustainable from a socio-economic, socio-cultural and environmental perspective, with a view to regaining control of food security in the local area, restoring degraded spaces and in turn transforming the agri-food system by implementing a circular economy pilot project in which multiple stakeholders participate
Forming Networks is also a way of restoring the destination and its landscape, as well as its gastronomic resources. The recent opening of the Municipal Gastronomy Centre arose with a view to providing a presence and route for the gastronomic sector and local products, serving as a meeting space for all stakeholders that form part of the value chain of the municipality's products and converting it into a national and international benchmark
Other relevant information:
Location: City of Murcia, Region of Murcia
Type of destination: Culture and Urban
Recipient: Tourism provider, Resident and Tourist
Impact on the Sustainable Development Goals: SDG 1, SDG 8, SDG 10, SDG 11, SDG 12 and SDG 17

7 Best Accessibility Practices

This section encompasses four initiatives, three of them for national destinations and one for international destinations. They can be divided into cultural, urban and beach destinations. They demonstrate how destinations overcome the challenge of accessibility in the two areas that make up this pillar in the Smart Destination methodology (Segittur, 2022e). First of all, three best practices related to accessibility management that analyse the means and mechanisms available to the selected destinations. And secondly, in relation to implementation, setting out a best practice related to one of the indicators that is key to this field: information (Tables 16, 17, 18, and 19).

Acknowledgements Below are the individuals and/or institutions that have made contributions to this section, in order of appearance in the section:

Table 16 Means for managing accessibility in Palma. Palma, Balearic Islands (Area 1. Management of accessibility in the destination)

Means for Managing Accessibility in Palma	
Accessibility pillar	Area: Management of accessibility in the Smart Destination Requirement: The manager has sufficient means for accessibility management (ACC01_3)
Description of the best practice:	
<p>Palma City Council has assumed the commitment and the challenge of adapting the city to everybody's needs, guaranteeing autonomy and the ability to choose and interact with the environment, as well as other factors that serve as the basis for the equal exercise of the basic freedoms. All this has been reflected in 360-degree accessibility management, endorsed in 2022 by signing a commitment to the accessibility policy</p> <p>For the purposes of proper accessibility management, the City Council provides human, technical and financial resources, coordinated mainly by the Infrastructure and Accessibility Area through the "Accessible Palma Office". The destination also has a variety of management tools in place that it has been implementing in recent years:</p> <p>Accessibility Coordination Commission: addresses accessibility transversally with all areas of the city council</p> <p>Accessible Palma Task Force: with members from the manager, entities and associations related to accessibility</p> <p>Palma 365 Tourism Foundation: its "Palma para todos" programme consolidates the entire promotional strategy of the accessibility pillar. As part of this programme, all tourism resources are audited, accessible routes are created and these are published in Braille</p> <p>The measurements included in Accessible Palma have also been transferred to the new tourist signs that will be rolled out in 2024</p>	
Other relevant information:	
Location: Palma, Balearic Islands	
Type of destination: Culture and Urban	
Recipient: Administration and Government	
Impact on the Sustainable Development Goals: SDG 11 and ODS 17	

- *Gijón City Hall*. Daniel Martínez Junquera. Director of Tourism for Gijón
- *Council of Benidorm*. Celia Romero as Coordinator of the Smart Office, and Vicente Mayor, head for the area responsible for the Smart Office
- *Goierry Turismo, GOITUR*. Nikolas Osinalde Gurrutxaga. Director of Goierry Turismo
- *District Tourism Institute (IDT). Bogota City Hall*. Jesús Alejandro Vargas. Specialist Contractor. Sub-Directorate of IT Management and Intelligence
- *La Rioja City Council*. María Sanz Fernández. Head of tourism at Logroño City Council
- *Malaga City Council*
- *Visit Valencia Foundation*. Ricardo Millet. Director of Intelligence and Digitalisation
- *Palma City Council*

Table 17 Assistance mechanisms for improving accessibility in Torroella de Montgrí—L’Estartit. Torroella de Montgrí—L’Estartit, Catalonia (Area 1. Management of accessibility in the destination)

Assistance Mechanisms for Improving Accessibility in Torroella De Montgrí—L’estartit	
Accessibility pillar	Area: Management of accessibility in the Smart Destination Requirement: The manager encourages accessibility in the private tourism sector (ACC01_9)
Description of the best practice:	
<p>Torroella de Montgrí town hall launched its sustainability plan in 2020, under the title “Torroella de Montgrí and L’Estartit: Commitment to Quality, Sustainability and Culture”</p> <p>One of the strategic lines included in this plan is the so-called “Accessibility Program” included in programme 1.3., which proposes “improving the environment where tourism activity is concentrated, providing for a qualitative leap forward in the perception of the destination by visitors, improving and facilitating accessibility to public spaces, beaches and shopping areas”, all by recruiting a consultancy service to support accommodation and activity companies to adapt their facilities to become more accessible</p> <p>Furthermore, the destination has actively participated in the formation of the Baix Empordà Tourism Accessibility Plan, the objective of which is for the region to be regarded as an accessible tourism destination, generating a new differential and qualitative value in the tourism competitiveness of Baix Empordà</p> <p>Within this framework, with a view to validating and advising tourism establishments and facilities in terms of accessibility, technical staff from a specialist company have completed, to date, a dozen visits, filling out a survey containing several questions about infrastructure, signage, staff training, access or other elements to meet different accessibility needs, especially the needs of people with a physical or intellectual disability. A tour is then performed of the facility and, based on all the information received and observed, a report is drawn up that identifies the establishment’s situation in terms of accessibility and the recommended actions to improve the destination</p>	
Other relevant information:	
Location: Torroella de Montgrí—L’Estartit, Catalonia	
Type of destination: Beach	
Recipient: Providers of tourism services	
Impact on the Sustainable Development Goals: SDG 11	

- *Torroella de Montgrí Town Hall*. Marta Vilavedra Ferrer. Head of the Torroella de Montgrí-L’Estartit Tourist Office
- *Medellin City Council*. Wilson Castellanos Parra. Professional specialising in accessibility at the Secretariat of Social Inclusion, Family and Human Rights of the District of Medellín
- *Donostia-San Sebastian City Hall*. Garikoitz Muñoz Otaegui. Head of the Tourism Destination Management Area, Donostia San Sebastián Turismoa
- *Santander Town Hall*. Santander town hall. Eurne Vidal López-Tornos. Managing director of the municipal tourism company
- *Salou Town Hall*. Jesús Redón Díez-Canseco. Head of ICT at Salou town hall

Table 18 Creation of CAME (Medellin Accessibility Committee). Medellín, Colombia (Area 2. Implementation of accessibility in the smart destination)

Creation of Came—Medellín Accessibility Committee	
Accessibility pillar	Area: Management of accessibility in the Smart Destination Requirement: Mechanisms for the management, development and monitoring of accessibility actions (ACC01_6)
Description of the best practice:	
<p>The Medellín Accessibility Committee is the body tasked with overseeing accessibility, not only in physical environments, but also in relation to transportation and information technology. It was constituted by Municipal Agreement, with a view to ensuring it is not affected by the will of the administration at the time</p> <p>The committee is made up of representatives of eight types of disability and public entities and 11 areas of the city council, including the Undersecretary of Tourism and the Metro</p> <p>The functions of this body are set out in the Internal Regulations approved in 2021, which also established the guidelines for its creation and operation. The functions of the Medellín Accessibility Committee, CAME, are as follows:</p> <p>Recommending aspects in relation to universal design criteria and reasonable adjustments required for the design and implementation of the institutional offer associated with the construction and adaptation of the public space, the city's facilities and its road network</p> <p>Recommending criteria in relation to the accessibility of information, communication and information technologies, within the framework of the institutional offer of Public Policy</p> <p>Recommending reasonable adjustments required to facilitate adequate human mobility in rural and urban areas of the metropolitan area.</p> <p>Verifying and following up on the recommendations regarding accessibility, universal design and reasonable adjustments referred to above</p>	
Other relevant information:	
Location: Medellín, Colombia	
Type of destination: Culture and Urban	
Recipient: Tourist and Resident	
Impact on the Sustainable Development Goals: SDG 10 and ODS 11	

- *Tenerife Tourist Office*
- *Valle del Jerte Association*. Esperanza Izquierdo Regadera. Tourism officer. Valle del Jerte regional tourist office
- *Salamanca City Council*
- *Cuenca Town Hall*
- *Vitoria-Gasteiz City Council*. Araceli de la Horra. Director of the Department for Economic Promotion, Employment, Trade and Tourism
- *Murcia City Council*. Manuel Pedro Navarro Sánchez. Innovation agent for the Forming Networks project and Jesús López López. Subdirector of Coordination and Huerta at the Urban Planning Service

Table 19 Information on accessibility in Donostia/San Sebastián. Donostia/San Sebastián, Basque Country (Area 2. Implementation of accessibility in the smart destination)

Information on Accessibility in Donostia/San Sebastián	
Accessibility pillar	Area: Implementation of accessibility in the Smart Destination
	Requirement: Information-advance planning for users with different needs (ACC02_13)
Description of the best practice:	
<p>Donostia/San Sebastián town hall, through the municipal entity for the promotion and development of tourism “Donostia San Sebastián Turismoa”, has created a Tourism without Barriers website as part of its tourism portal, which provides information about any issue related to the accessibility needs of visitors and tourists during their visit to the city</p> <p>The website contains all the necessary information for organising a trip to Donostia/San Sebastián: how to get there, how to get around the destination, what to visit, what to do, where to eat and sleep, as well as other services of interest (tourism services specialising in accessibility, adapted public toilets etc.)</p> <p>Each of these sections describes the accessibility conditions of the spaces and the services offered in detail. The information is provided for physical, visual and hearing-impaired accessibility needs</p> <p>One core feature worth mentioning is that the information is descriptive: it is not limited to a pictogram indicating whether the place or service in question is accessible, nor does it assess whether it is. Rather it provides a detailed description of the conditions, so that each person can decide whether or not it meets their needs</p> <p>The information is also complemented with photographs, which visually reflect the textual content</p> <p>See more information here: https://accessibility.sansebastianturismoa.eus/es/</p>	
Location: Donostia-San Sebastián, Basque Country	
Type of destination: Culture and Urban	
Recipient: Tourist and Resident	
Impact on the Sustainable Development Goals: SDG 10	
Location: Donostia-San Sebastián, Basque Country	

Appendix: List of Tables Illustrating the Good Practices

Table 9.1 Strategy and plan of actions in tourism and marketing plan. Gijón/Xixón, Asturias (Area 1. *Strategic vision and implementation*)

Table 9.2 Smart Destinations Office, Technical Office of Innovation and Intelligence in Benidorm. Benidorm, Region of Valencia (Area 2. *Efficient management*)

Table 9.3 Participation of the private sector in the development of local tourism policy in the Goierri region. Goierri region, Basque Country (Area 3. *Transparency and participation*)

Table 9.4 District Tourism Quality System in Bogotá—Capital Tourism Quality Circle. Bogotá, Colombia (Area 4. *Responsibility and control*)

Table 9.5 2022–2025 Logroño Enópolis Strategic Plan. Logroño. La Rioja (Area 1. *Innovative governance*)

Table 9.6 Social innovation plan at Malaga City Council. Malaga, Andalusia (Area 2. *Innovation activities*)

- Table 9.7 Tourism entrepreneurship and innovation ecosystem in Valencia. Region of Valencia (Area 3. *Innovation ecosystem*)
- Table 9.8 Open Santander. Open data portal aimed at the business fabric and citizens. Santander, Cantabria. (Area 1. *Technologies applied to governance*)
- Table 9.9 Smart sensors with Deep Learning technology for people counting and capacity control in Salou. Salou, Catalonia. (Area 2. *Technological infrastructures and connectivity*)
- Table 9.10 Technology applied to knowledge. Tenerife tourism dashboard. Tenerife, Canary Islands (Area 3. *Technologies for Smart Tourism Management*)
- Table 9.11 Cerecina chatbot, an innovative element in marketing Valle del Jerte as a destination. Valle del Jerte association, Extremadura (Area 3. *Technologies for Smart Tourism Management*)
- Table 9.12 Plan for integrating tourism with local residents in Salamanca. Salamanca, Castile and Leon. (Area 1. *Tourism sustainability management*)
- Table 9.13 The key role of the Cuenca city consortium in the conservation of the destination's cultural heritage. Cuenca, Castile-La Mancha (Area 2. *Conservation, improvement and recovery of cultural heritage*)
- Table 9.14 Vitoria-Gasteiz green belt: sustainable urban development. Vitoria-Gasteiz, Basque Country (Area 3. *Conservation and improvement of the environment*)
- Table 9.15 Forming networks, sustainable food and support for zero-km in the city of Murcia. Murcia, Region of Murcia (Area 4. *Socio-economic development and circular economy*)
- Table 9.16 Means for managing accessibility in Palma. Palma, Balearic Islands (Area 1. *Management of accessibility in the destination*)
- Table 9.17 Assistance mechanisms for improving accessibility in Torroella de Montgrí—L'Estartit. Torroella de Montgrí—L'Estartit, Catalonia (Area 1. *Management of accessibility in the destination*)
- Table 9.18 Creation of CAME (Medellin Accessibility Committee). Medellín, Colombia (Area 2. *Implementation of accessibility in the Smart Destination*)
- Table 9.19 Information on accessibility in Donostia/San Sebastián. Donostia-San Sebastián, in the Basque Country (Area 2. *Implementation of accessibility in the smart destination*)

References

- SEGITTUR. (2021a). *Guía de buenas prácticas en playas en el contexto del COVID-19*. Available at: <https://www.segittur.es/sala-de-prensa/informes/guia-de-soluciones-en-playas-en-destinos-de-la-red-dti-ante-el-covid19/>
- SEGITTUR. (2021b). *Guía de buenas prácticas en digitalización de destinos turísticos inteligentes*. Available at: https://www.segittur.es/sala-de-prensa/informes/guia_buenas_practicas_digitalizacion_destinos/
- SEGITTUR. (2022a). *Guía de las actuaciones más destacadas en los destinos distinguidos con el reconocimiento de Destino Turístico Inteligente*. Available at: https://www.segittur.es/sala-de-prensa/informes/guia_buena/

- SEGITTUR. (2022b). *Guía de buenas prácticas en innovación para DTI*.
- SEGITTUR. (2022c). *Guía de buenas prácticas en sostenibilidad para DTI*. Available at: https://www.segittur.es/sala-de-prensa/informes/guia_buenas_practicas_sostenibilidad_destinos_inteligentes/
- SEGITTUR. (2022d). *Guía de buenas prácticas en patrimonio cultural*. Available at: <https://www.segittur.es/sala-de-prensa/informes/guia-de-buenas-practicas-en-patrimonio-cultural-para-destinos-turisticos-inteligentes/>
- SEGITTUR. (2022e). *Guía de buenas prácticas en accesibilidad para DTI*. Available at: https://www.segittur.es/sala-de-prensa/informes/guia_buenas_practicas_accesibilidad_destinos_turisticos_inteligentes/
- SEGITTUR (2023) *Guía de buenas prácticas en innovación para Destinos Turísticos Inteligentes: Una recopilación de 38 actuaciones destacadas en innovación turística. [Best practices guide on innovation for Smart Tourist Destinations: A compilation of 38 outstanding actions in tourism innovation.]* Available at: https://www.segittur.es/wp-content/uploads/2023/09/Guia-buenas-practicas-innovacion-para-DTI_23_10_24_low.pdf

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The Spanish Smart Tourism Destinations Network: The Instrument for Transferring and Stimulating the Adoption of National Tourism Policies



SEGITTUR

Abstract The implementation of the Smart Tourism Destination (DTI) Model is supported by a collaborative governance structure, known as the Smart Destination Network (Red DTI) that brings together agents from public and private spheres that are leading the transition from the traditional tourism sector toward Smart Tourism Destinations, an end-to-end transformation programme structured around governance, sustainability, accessibility, technology, and innovation pursued by the Spanish Secretary of State for Tourism.

This chapter sets out the creation process and objectives of the DTI Network, serving as a catalyst for the DTI Model by analyzing factors including but not limited to its nature, progress, objectives, management bodies and services offered, highlighting its potential as a tool for the transfer of knowledge to redefine the role of tourism policies and the development of new planning and management tools.

1 Conceptualization and Objectives

Since launching the Smart Tourism Destination (DTI) programme (Segittur, n.d), the Spanish Secretary of State for Tourism (SETUR), through SEGITTUR, has worked on the definition of the model, its implementation, its governance and the sophistication of the tools made available.

In October 2018, following a growth in interest amongst the main Spanish destinations in relation to the DTI model, a proposal was made by SETUR concerning the creation of the DTI Network, with a view to placing destinations at the center of focus when it came to public policies on tourism to enhance their competitiveness, promote synergies and facilitate the necessary transfer of knowledge.

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It was thus conceived as a strategic instrument that would act as a catalyst for the DTI programme for its consolidation and serve as a meeting place and support for all destinations making the commitment to implementing the DTI diagnosis and action plan, to developing toward a model of smart management and a more sustainable and resilient form of tourism.

Just a few months later, on February 27, 2019, the DTI Network was formally founded with the participation of 47 destinations and 10 national institutions through the signing of the General Action Protocol for participation, support and promotion of the DTI Network, and the coordination of its operation through its two governing bodies: the Plenary Committee and the Executive Committee.

The constitution of the DTI Network has been one of the main commitments of the Secretary of State for Tourism in recent years, thanks to which Spain is now cementing its status as a leader in the implementation of a methodology for the transformation of destinations toward a new model rooted in governance, sustainability, accessibility, innovation, and technology as the backbone.

It is, therefore, a key action of tourism policy to generate added value for destinations as well as for monitoring projects following a diagnosis, to promote cohesion, the exchange of best practices, and the unlocking of synergies between destinations.

The DTI network was created with a view to bringing together and representing all tourism destinations that have initiated the process of earning the DTI badge, as well as other essential agents, from the various strata of public bodies involved through to the private sectors and academia; in short, all those whose knowledge and field of work can collaborate and add value to the development of Smart Destinations.

Thus, the DTI Network currently recognizes three types of members, as set out in the Network's General Action Protocol.

- *Full members*: Local government bodies, as defined in Law 7/1985, of 2 April, on the Basis of Local Governance, which are recognized as Smart Destinations, or which have begun the process of becoming Smart Destinations according to the methodology applied by SEGITTUR, with the drafting of a diagnosis and action plan.
- *Institutional members*: Public Administrations and their bodies, organizations and entities not included in the above point, and associations, federations, and groups of public administrations and/or entities relating to the DTI which work in areas relating to the DTI methodology.
- *Collaborating members*: Individuals or public or private entities people not included in the above points, who due to their expertise and professional fields can add value to the development of the DTI.

Moreover, the Terms of Reference of the management bodies of the Smart Destinations (DTI) Network include the figure of international observers, who do not have the right to speak or vote, but may participate in any working sessions and/or meetings organized by the DTI Network, provided their participation is not expressly excluded.

While membership does not currently entail any financial commitment, destinations that join the DTI Network confirm, upon applying, their commitment to initiate, within a period of 2 years, the process of converting to a DTI according to the methodology of the Secretary of State for Tourism by undertaking the corresponding diagnostic work and drawing up an action plan, which does come with an associated cost. Under no circumstances does simple adherence to the DTI Network confer DTI status; rather, it is an initial commitment to ultimately becoming a destination operating under the DTI Model. Only those destinations that obtain a score of 80% or more in meeting the requirements set out in the DTI methodology are worthy of a DTI badge. In the case of full members, the acceptance of full members into the DTI Network is subject to approval by the Executive Committee and also requires compliance with the Code of Ethics of the DTI Network.

The acceptance of institutional members into the DTI Network is subject to approval by the Plenary Committee and has no associated costs.

In the specific case of collaborating members, as well as being dependent on acceptance of the DTI Network's Code of Ethics (Segittur, 2022), acceptance is conditional on the undertaking of a relevant and interesting project with a full member or institutional member, linked to the DTI Model. Their membership represents an opportunity to enhance the visibility of destinations among companies and allows the destinations to witness the effectiveness of new solutions firsthand.

It is particularly important to highlight that membership of the DTI Network as a collaborating member does not imply any recommendation by SEGITTUR of the member company, nor any recommendation by the DTI Network itself. This is because their membership is conditional on the endorsement they receive from a full or institutional member of the network upon presenting a specific project that serves as a benchmark for other destinations.

The validity of the acceptance of collaborating members into the DTI Network lasts for 2 years; this may be extended by renewing the collaboration with one or more full or institutional members of the Network, in line with the Operating Regulations of the management bodies of the DTI Network, a circumstance that encourages the business community to continue building synergies and developing its products in response to the needs posed by the destinations making the commitment to the DTI model.

1.1 Aims of the Smart Tourism Destinations Network

As a collaborative instrument, the Smart Tourism Destinations Network pursues multiple objectives, all of which are included in the General Action Protocol approved on July 13, 2023. With this in mind, its general objectives include:

- Encouraging Spanish tourism destinations to become DTI and join the Network.
- Fostering public–private partnerships in the development of products, services, and actions in DTI.

- Contributing to ensure Spain's leadership in smart tourism through the actions of the Network.
- Guaranteeing the quality and evolution of the DTI project.

More specifically, these general objectives are reflected in the following specific cooperation objectives:

- Collaborating on coordinating, and where applicable taking part in, government-led actions in and relating to DTI.
- Encouraging collaboration and joint action by the destinations forming the Network, looking for synergies in every area of smart tourism and sharing experiences and best practices.
- Fostering coordination and/or integration with other networks and forums with similar or equivalent aims, in Spain and/or abroad.
- Spreading important information about DTI and the benefits and results of applying DTI management.
- Driving research in all the core areas of development of a DTI to contribute to continuous improvement.
- Facilitating the process by which destinations become DTI through advice, financing information, and technological and strategic solutions.
- Defining and/or promoting a framework for the joint promotion of DTI at the national and international levels, creating a framework that recognizes the benefits for tourists and residents of achieving social, economic, and environmental sustainability.
- Promoting the development and dissemination of tools, useful information and expertise for tourism destinations, and training in their use.

2 Functioning of the Smart Tourism Destinations Network: Management Bodies

The DTI Network is an ambitious, long-term project that aims to promote a new reference framework to grow and increase the competitiveness of the existing Spanish tourism model, while laying the foundations for what will be a new model based on innovation, knowledge, technology, accessibility, and shared governance between central, regional, and local administrations.

To achieve these objectives and fulfil its duties, the DTI Network operates a structure in which all of its members participate and are represented (Segittur, 2023a), and which is also in line with the commitments they assumed when they joined.

The Network is permanently steered and chaired by the Secretary of State for Tourism and has two main management bodies to guarantee and promote the governance of the Network: the Plenary Committee, as the representative body tasked with monitoring compliance with the Protocol, and the Executive Committee, which is there to ensure proper compliance with the Protocol.

Both bodies are supported by a technical secretariat, which assists them by seeing to it that their decisions are acted upon and take effect.

The main functions of both management bodies (Fig. 1) are included in the General Action Protocol for the participation, support and promotion of the DTI Network:

Below, a more detailed description is provided of the composition and functions of each of the management bodies of the Smart Tourism Destinations Network (Segittur, 2023b).

5. Executive Committee

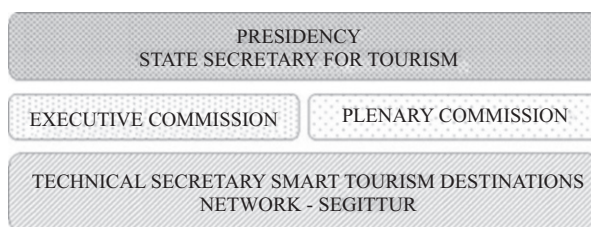
The Executive Committee is responsible for pursuing the objectives set out by the Smart Tourism Destinations Network and the main stakeholders tasked with defining its strategy sit on this committee:

- Chair: falls permanently to the Secretary of State for Tourism, who leads this initiative and manages its operations.
- Vice-Chairs:
 - Coordination Vice-Chair: permanently held by the Chairman of SEGITTUR or the person delegated by them. In charge of the technical and administrative managements of any actions or projects performed by the Network, complying with the guidelines set out by the executive and plenary committees.
 - First Institutional Vice-Chair: permanently held by a representative of the Spanish Federation of Municipalities and Provinces (FEMP).
 - Second Institutional Vice-Chair: permanently held by a representative of the public business entity RED.ES.

The institutional vice-chairs are responsible for fostering and improving the fluidity of relations between members, as well as coordinating and managing relations between members and the Executive Committee.

- Members: a minimum of 2 and a maximum of 25, appointed by the Plenary Committee from among the full members, following the presentation of candidacies from interested institutions and fulfilling a series of requirements. The members of the Smart Tourism Destinations Network act as representatives of the interests of full members and, therefore, serve as the voice of the other destinations that make up the Network, relaying any concerns and needs identified to the Executive Committee. The following full members currently hold this position:

Fig. 1 Governance bodies of the Smart Tourism Destinations Network. Source: <https://www.destinosinteligentes.es/funcionamiento/> (July 2023)



- Avilés Town Hall
- Council of Benidorm
- Council of Burgos
- Council of Chiclana
- Council of La Adrada
- Council of La Nucía
- Council of Logroño
- Council of Mérida
- Palma de Mallorca Town Council
- Santander Town Hall
- Council of Talavera de la Reina
- Council of Torremolinos
- Valencia Town Hall
- Council of Lanzarote (SPEL)
- Council of Tenerife (SPET)
- Provincial Council of Pontevedra

All full members interested in being members of the Executive Committee must satisfy the following requirements:

- Have completed the diagnosis tasks and Smart Tourism Destinations action plan.
- Have joined the Smart Tourism Destinations Network at least 2 years prior.

The position of member has a maximum duration of 4 years and as part of the electoral process, the Executive Committee promotes the maximum representation of the different types of full members (provincial councils, island councils, associations of municipalities, governing boards, and city councils) to ensure that the specific nature its members are represented.

Generally speaking, the Executive Committee's key functions include verifying the performance and monitoring, overseeing, and controlling the activities or projects undertaken within the Smart Tourism Destinations Network, while providing support to the Plenary Committee as and when required or deemed advisable.

The Executive Committee is also responsible for the following functions set out in the General Action Protocol:

- Approving the acceptance and removal of full members.
- Proposing, for information purposes, the registration and removal of institutional members and collaborating members to the Plenary Committee.
- Preparing programmes or projects and proposing the corresponding specific agreements to execute the Smart Tourism Destinations Network Protocol in the selected areas, within the collaboration modes established in Clause 3 of this Protocol.
- Approving and driving the actions of the Network and managing internal and external communications.
- Coordinating, calling, and improving the fluidity of the meetings of expert groups and round tables. Proposing the functions of these groups and the management of the activities the Network offers its members.

- Referring its own proposals to the Plenary Committee and executing its agreements.
- Proposing additions or withdrawals of members to the Plenary Committee.
- Representing the Network.
- Monitoring the specific protocols signed, referring proposals to the Plenary Committee as appropriate.

The Executive Committee of the Smart Tourism Destinations Network meets at least once per quarter to ensure the correct performance and implementation of these tasks, supported by the technical work of the Secretary.

6. Plenary Committee

The Plenary Committee is made up of a representative of each of the members, regardless of their nature, i.e., they form part of the Network, in addition to the Chair, Vice-Chairs, and Secretary, as set out in the General Action Protocol.

The Plenary Committee is responsible for monitoring and controlling the implementation of the Smart Tourism Destinations Network protocol and resolving any interpretation or compliance problems arising from it.

As a complement to the Executive Committee's functions, the Plenary Committee has the following powers, as reflected in the General Action Protocol:

- Approving the inclusion or removal of institutional and collaborating members as proposed by the Executive Committee.
- Appointing the members of the Executive Committee and determining the number of members, from a minimum of 2 to a maximum of 25, deciding this preferably, but not exclusively, applying the proportion of one member for every 30 new members joining the Network until the established maximum of 25 members.
- Proposing collaboration possibilities in areas of shared interest for the parties.
- Approving the proposals of the Executive Committee, and proposing and approving any measures and agreements considered necessary or desirable in order to achieve the Network's goals.
- Forwarding the proposals it drafts or approves to the competent bodies of the parties for a decision, if applicable.
- Considering, and if applicable, approving the proposals of the Executive Committee regarding the monitoring of specific agreements.

The Plenary Committee must hold a meeting at least once a year and also receives support from the Technical Secretariat for meetings to be held.

7. Secretariat of the Smart Tourism Destinations Network

The Technical Secretariat of the Smart Tourism Destinations Network provides support to the Plenary Committee, the Executive Committee, and the members of the Smart Tourism Destinations Network with any tasks with which their assistance is required. Permanent responsibility for management of the Technical Secretariat of the DTI Network lies with SEGITTUR. Specifically, its functions include the following, as reflected in the General Action Protocol:

- Assisting the governing bodies of the Network, the Chair, and the Vice-Chairs.
- Guiding, processing, and managing the administrative work performed as part of the Network.
- Preparing the minutes of meetings held by the governing bodies of the Network.
- Issuing certifications of the agreements adopted by the Network's bodies.
- Complying with documentary requirements within the corresponding legal terms.
- Managing the Network's communications with its members.
- Preparing, safekeeping, and sharing, where applicable, the documentation generated or of interest to members.
- The supervision and management of all the collaborative tools required to facilitate communications and documentation.
- Relations and communication with other networks of local institutions or destinations that may be in place at any territorial level to ensure the coordination of related projects or those of interest to the Smart Tourism Destinations.
- Any other complementary function required for the proper functioning of the Network.

The Technical Secretariat is available to all members of the Network to resolve any queries or concerns electronically and is also responsible for the coordination, implementation, execution, and supervision of the tools and services made available to Network's members.

3 Categorization of Full Members of the Smart Tourism Destinations Network at All Levels

At present, the exponential growth of the DTI Network and the heterogeneity of its destinations have required the categorization of its full members, establishing different profiles depending on the degree of achievement of the process for implementing the Smart Tourism Destinations model. As a result of the diagnosis work and Smart Tourism Destinations action plan implemented and the analysis of the full members of the Smart Tourism Destinations Network, the categorization of destinations has been proposed based on:

- Their effective implementation of the Smart Tourism Destinations model pursued by the Secretary of State for Tourism.
- The implementation of an interdepartmental committee to supervise the implementation of the model.

The result is a classification, included in Article 15 of the Operating Regulations, into five large levels that are applicable only to full members, whether these are local or supra-municipal. The Network's Secretary is responsible for determining this level for each of the full members; as part of this process, they will check progress and inform the full members of their level based on the fulfillment of the conditions established for each of them as described in Table 1.

Table 1 Smart Tourism Destinations Network full member levels

Type of full member	Level	Conditions
Provincial councils and island councils	Level V	Full members who are supra-municipal institutions with sufficient technical, organizational, and financial capacity to promote the implementation of the Smart Tourism Destinations model in their provincial or island territories
Local councils, governing boards, and associations of municipalities	Level IV	Be a full member with the current Smart Tourism Destination badge, i.e., fulfilling 80% of the requirements following the Diagnosis Report and Smart Tourism Destinations Action Plan Meet the requirements of Level III
	Level III	Be a full member who has completed the Diagnosis Report work with a percentage of compliance with the requirements of less than 80%, having launched its Smart Tourism Destinations Action Plan Meet the requirements of Level II Have a Monitoring Committee or Smart Office in place (Annex X Operating Regulations) Have a strategic plan
	Level II	Be a full member who has started the Smart Tourism Destinations diagnosis and action plan process, regardless of the percentage of compliance with the requirements Formal commitment to adhere to the Code of Ethics Have an Interdepartmental Committee (Annex X Operating Regulations)
	Level I	Be a full member who has not started the Smart Tourism Destinations diagnosis and action plan process Formal commitment to adhere to the Code of Ethics

Source: Operating Regulations of the management bodies of the DTI Network

Therefore, except with just cause, the full members of the Network may not remain at Level I for more than 2 years; in other words, destinations have a maximum of 2 years from the time at which they formalize their membership to start the diagnosis tasks and DTI action plan. After this period, their membership may be terminated at the proposal of the Technical Secretariat by the Executive Committee.

4 Evolution of the DTI Network: Main Figures and Characterization of Full Members

The DTI Network has experienced exponential growth since its constitution in February 2019, increasing from just 57 members at the time to more than 640 members at present.

This growth can mainly be attributed to the positive impact on destinations, which represent the bulk of the DTI Network’s members, since the commitment to

the DTI model represents a shift in paradigm that places the focus of tourism decision-making on local authorities, providing them with a methodology that empowers them within the scope of their powers and is accompanied by a clear roadmap with which to guide the governance of the destination and a network of collaboration to share and generate synergies in the process.

An initial analysis of the shift in number of members of the DTI Network by type of member reflects its growth and representativeness given its nature in just the 4 years that it has been active, an unmistakable sign of how useful it is to agents in the public and private sectors (Fig. 2).

This growth has represented a challenge for SEGITTUR, responsible for the Technical Secretariat, to respond not only to the growing demand for membership but also to identify relevant services and information for its members, to serve as an instrument for promoting the exchange of experiences and knowledge that would contribute to the smart development of tourism destinations.

At present, the DTI Network consists of 641 members: 459 full members, 87 institutional members, 91 collaborating members, and 4 international observer members; in other words, more than 71% of the members of the Smart Tourism Destinations Network are local authorities, followed by collaborating members (14.2%), institutional members (13.6%) and international observers (0.62%) (Fig. 3).

The members of the DTI Network are distributed across Spain, with a presence in all the country’s regions with the sole exception of the autonomous city of Melilla. In an international arena, there are also Ibero-American destinations that, with an observer status, participate in its activities and services, although comparatively, they represent a very small proportion.

When it comes to full members, the DTI Network is present in all Spanish regions (Fig. 4), with the exception of the autonomous city of Melilla. Four of them account for 59.13% of the full members of the DTI Network, Andalusia being the leader in the ranking. 22.83% of the members of the Network belong to this region.

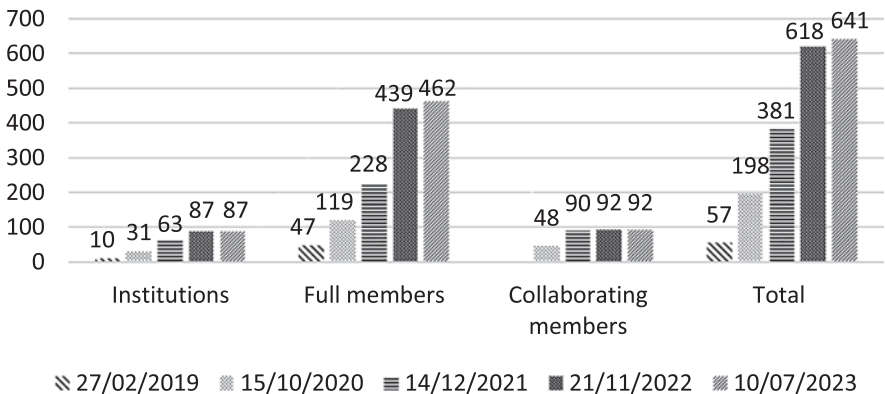


Fig. 2 Change in the number of Smart Tourism Destination Network members by type (2019–2023)

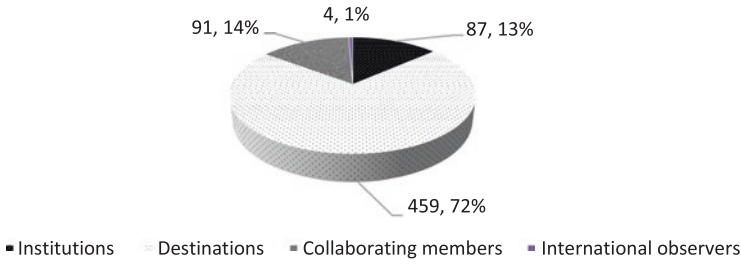


Fig. 3 Members of the Smart Tourism Destination Network by type

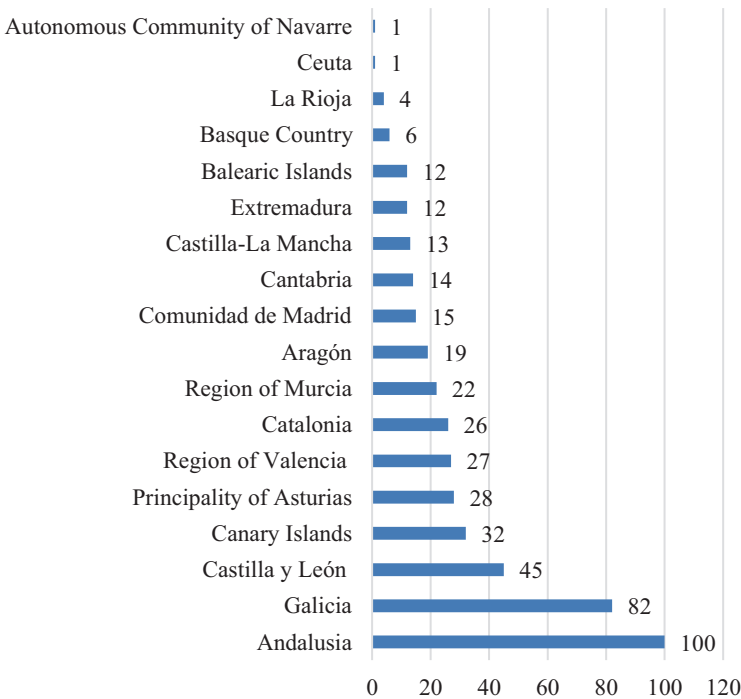


Fig. 4 Distribution of full members by autonomous region

It is followed by Galicia on 18.72%, Castile and Leon (10.27%), and the Canary Islands (7.31%) in terms of representativeness.

The analysis at a provincial level (Fig. 5) provides more specific details in terms of the ranking of autonomous regions described above, headed by the provinces of Ourense (7.1%), Asturias (6.4%), A Coruña (6.2%) and Murcia (5%), which account for 24.7% of the full members of the DTI Network. It is worth noting that 42 of the 52 provincial capitals participate in the Smart Tourism Destinations Network.

From the perspective of tourist representativeness, the weight of full members of the Smart Tourism Destinations Network at a national level can also be seen, as the

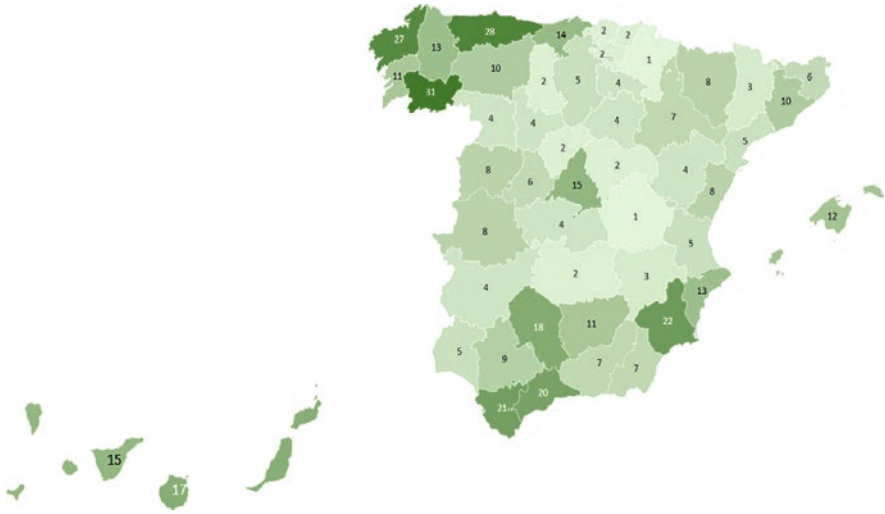
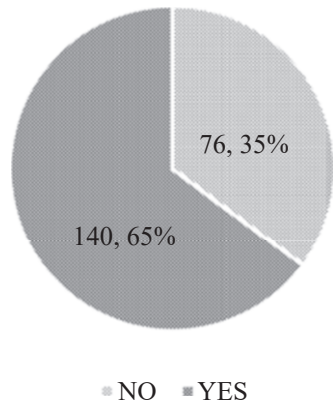


Fig. 5 Representativeness of full members by province. Source: By the authors

Fig. 6 Representativeness of full members by attractions. Source: By the authors



Network accounts for 87.19% of tourists staying in Spanish hotels. Around 64.8% (140 out of 216) of the attractions included by the National Statistics Institute in its Hotel Occupancy Survey (for 2022) form part of the Smart Tourism Destinations Network (Fig. 6).

The 140 attractions recognized by the National Statistics Institute that are also full members of the DTI Network account for 87.19% (120.8 of 138 million) of the overnight stays by guests at hotel establishments for Spanish tourism attractions.

Annex 1 provides details of the distribution of the full members of each of the regions by autonomous community and province.

5 Services of the Smart Tourism Destinations Network: Information Tools and Collaboration Forums

Given the different areas of cooperation that the members of the Smart Tourism Destinations Network can jointly address, a variety of different mechanisms, tools, and instruments for interaction, participation, and collaboration have been coordinated to ensure that the ecosystem of agents can participate by continuously promoting the generation of information and knowledge of interest, as well as the dissemination and training in relation to the Smart Tourism Destinations model.

The Technical Secretariat has now consolidated all the services offered by the Network in the private area on the official website of the DTI programme, at www.destinosinteligentes.es, providing access to all the Network's services in a single place.

Generally speaking, the services offered by the Smart Tourism Destinations Network can be grouped into four major content blocks:

1. Information services

In terms of information, the Network's Technical Secretariat has launched different tools that facilitate the dissemination of the DTI model among its members, in addition to the information shared openly at www.destinosinteligentes.es.

Thus, on a weekly basis, informative weekly newsletters are generated that contain news and initiatives related to tourism management by tourism managers and professionals who form part of the Network, facilitating the visibility of actions performed by tourism managers in Spain in line with the pillars of the Smart Tourism Destination model.

These newsletters are complemented by monthly webinars to enhance the visibility of the latest news, best practices, or publications by destinations in the Network, as well as smart talks organized by companies that collaborate with the Network, at which they explain the technology that supports the solutions offered to the sector first hand.

Finally, the importance of information or communication activities is reinforced through the @Red_DTI account on Twitter, which multiplies the impact of the actions undertaken.

2. Educational services

The training of members of the DTI Network is a priority and a field of work that will be enhanced in the coming months by the Technical Secretariat. To this end, the Network has a training platform made available exclusively to members containing a variety of training resources with a view to facilitating the understanding of the DTI model and the standardisation process undertaken to date in certain aspects of the DTI model.

3. Collaboration forums

All these tools are complemented by collaboration spaces that make it possible to generate synergies between the full members of the Smart Tourism Destinations Network. This is the case of the task forces set up as part of the Network which, generally speaking, pursue the general objectives set out in Article 21 of the Operating Regulations:

- Propose, collaborate, and participate in the performance of studies and preparation of reports of common interest.
- Detect and transfer the main trends and tools related to the areas of work identified to the tourism managers of the destinations represented.
- Promote the active participation of the members of the task force, as well as committing to the coordination or integration with other forums that pursue similar objectives.

Furthermore, the general objectives described above are extended with the specific objectives of each task force.

There are currently different task forces within the Smart Tourism Destinations Network, all of them made up of public managers from the municipal or supra-municipal level, as well as experts who work for institutional members or collaborating members of the Smart Tourism Destinations Network. The Technical Secretariat is responsible for the coordination and management of meetings and logistical support for them (recordings, material for presentations, audio, etc.), as well as sending invites, minutes, and notes in line with the operating protocol of the task forces and of the management bodies of the Smart Tourism Destinations Network, as well as any administrative tasks required for the ordinary functioning of the task forces and technical committees. To date, the following task forces have been set up as part of the Smart Tourism Destinations Network:

- Task force for the Regulation of the management bodies of the Smart Tourism Destinations Network: the task force is made up exclusively of full members who act as members of the Executive Committee, as the purpose of this group is to verify the execution, monitoring, and control of activities and projects arising in relation to the General Action Protocol of the DTI, and the work of the Plenary Committee to support them as necessary or desirable for the monitoring and control of the protocol and the commitments acquired by the signatories, and for resolving any problems of interpretation or compliance arising from the protocol.
- Cultural heritage task force: open to all members of the Smart Tourism Destinations Network where the hallmark of the destination has a relevant heritage component, with a view to promoting a process of dialogue and participation among the members of the Smart Tourism Destinations Network in relation to heritage and its impact on destination management.
- Tourist interaction task force: conversation systems, translation, portals, etc. This task force was created with a view to proposing actions and identifying best practices around the management of tourism promotion portals and the technological tools of tourism promotion (WhatsApp, chatbots, voice assistants), languages in which they communicate, etc.

- Task force for tourism intelligence systems: promotes greater coordination between the agencies that work at tourism destinations in the Tourism Intelligence Systems at a national, regional and local level, promoting the creation of Tourism Intelligence models among destinations that have not yet consolidated the model and the dissemination of success stories of tourism destinations and their Tourism Intelligence Systems.
- Task force of provincial councils and island councils: aimed at establishing joint strategies that promote the implementation and measurement of the DTI model at these supra-municipal institutions.
- Rural tourism task force: open to all members of the Smart Tourism Destination Network who are linked to the needs and specificities of the rural world, with a view to identifying best practices that ensure the social, economic, cultural, and environmental sustainability of the rural environment through tourism activity.
- Camino de Santiago task force: its objectives include promoting a process of dialogue and participation as well as cooperation relations between all members of the DTI Network through which the Camino de Santiago runs with a view to protecting and promoting the Jacobean route, as well as its impact on tourism destination management.
- Sports tourism task force: created at the request of a number of regular members that make up the Smart Tourism Destinations Network specializing in this form of tourism or with an interest in developing it in their territories.
- Sun, beach, and inland bathing areas task force: promotes a process of dialogue and participation as well as cooperation relations between destinations that depend to varying extents on beach tourism or those with natural and structural resources that have consolidated this offer, with a view to protecting and promoting the product itself, its subsequent segmentation and the natural and structural resources and the corresponding tourism attractions, as well as its impact on the management of the tourism destination.

Finally, bearing in mind that promoting cooperation and collaboration between the full members of the DTI Network is key to guaranteeing its survival, in addition to the above tools and services, the DTI Network organizes annual manager meetings with a view to promoting networking among professionals who are going to be implementing and working on the construction of the DTI model in each of their territories, sharing the needs, best practices, and identifying the services that the Network could incorporate and roll out to satisfy these shortcomings.

4. Knowledge services:

Fruit of the strengths, needs, and shortcomings identified as part of the direct interaction with public managers through dialogue channels, scheduled activities and services, multiple meetings of task forces and manager meetings, the Technical Secretariat of the Smart Tourism Destinations Network generates guides, best practice manuals, reports, and publications, as well as other tools that respond or provide visibility to requests for knowledge from members of the Network.

With this in mind, since the launch of the Smart Tourism Destinations Network, more than XX publications have been produced, all made available to the tourism community at www.destinosinteligentes.es

In addition to this library of publications, there are different tools that have been designed to help tourism managers implement the Smart Tourism Destinations model in their territories. This is the case of the following services:

- Directory of technological solutions for Smart Tourism Destinations: available for consultation on the DTI programme website, consisting of a collection of suppliers' technological solutions (products/services) available from among those suppliers who are national or have a branch in Spain and offer solutions for the Tourism sector, and more precisely for all the activity that a public manager can carry out within a DTI. For the classification of solutions and services, the scope of application of the Smart Tourism Destinations model based on the 5 pillars and 26 categories of solutions or services has been used.
- Repository of Best Practices for Smart Tourism Destinations: also accessible from the public area of the Smart Tourism Destinations programme website, this represents a large database of best practices in relation to the Smart Tourism Destinations model, spread across the 5 pillars into which the Smart Tourism Destinations is divided, 26 categories of solutions or services and 20 scopes.
- Library of specifications of Smart Tourism Destinations: with exclusive access for members of the Smart Tourism Destinations Network, the library of specifications is prepared on a monthly basis, structured around the information posted in the Public Sector Contracting Platform, completed contracts linked to any of the 5 work pillars of the Smart Tourism Destinations model and the same 26 categories of solutions or services that can serve as a reference for the managers of the Network when preparing new contracts.
- UNE standards for Smart Tourism Destinations: since January 2023, the Technical Secretariat has enabled members of the Network to freely consult the 15 standards with a view to extending knowledge on the standardization developed by the Secretary of State for Tourism through SEGITTUR, and specifically within the framework of the 5 DTI Subcommittee (SC5), under the AEN/CTN 178 Smart Cities Technical Committee for Standardisation, by the UNE, the Spanish Association for Standardisation.
- Data and statistics for Smart Tourism Destinations: this constitutes a priority area of work that has provided full members with access to multiple sources of data and statistical reports free of charge, supported by training actions that facilitate their consultation, use, and understanding.

6 The DTI Network as an Instrument for the Transfer and Promotion of the Adoption of National Tourism Policies

The DTI Network was founded as a collaborative instrument that would act as a catalyst for the DTI model in the public sphere; however, the national and global situation of the tourism sector caused by the COVID-19 pandemic sped up not only its growth, but also forced it to evolve toward an agile permanent cooperation structure that facilitates the daily distribution of best practices and knowledge, encouraging synergies between public and private tourism managers regardless of their size or nature. Consequently, it has been conceived as the real and operational transfer instrument for the adoption, modification, and discussion of public policies in the tourism sector.

Thus, starting with the identification of the elements, services, and interests shared by the destinations, regardless of their type or nature, the Secretary of State for Tourism through SEGITTUR has defined an instrument that is capable of enhancing and establishing challenges and guidance both in relation to traditional destinations, as well as those that aspire to consolidate themselves as such, promoting the conversion of destinations into DTI through the adoption of the DTI model, which is characterized by the awareness of the manager and tourists themselves to ensure the integrity of its inherent characteristics while guaranteeing its sustainability and competitiveness based on the best use of its tourism resources.

Although its dizzying expansion could solely be attributable to the previous lack of tourism cooperation mechanisms at a local level despite the indisputable relevance of the sector at a national level, tourism managers have decided to employ this Network as a space for redefining the role of tourism policies and the development of new tourism planning and management tools at a local level. A space that facilitates inter-administrative collaboration, establishing a new framework of reference that makes it possible at a supra-municipal level to consolidate a new standard of competitiveness in accordance with the resilient environment on the basis of governance, innovation, technology, sustainability, and accessibility.

Because it is these local authorities who are responsible for the competitiveness of a country when it comes to tourism, the DTI Network aims to continue facilitating the journey toward the digital transformation of tourism destinations and areas in Spain, adding value to the destinations and contributing, as has been the case up until now, to enhancing the territorial perspective in public policies on tourism in Spain. The more than 630 members of the Network and the adoption of this instrument in the Ibero-American world in the form of the Ibero-American DTI Network is another successful example of the transfer of public policies thanks to SEGITTUR's efforts to export existing knowledge and apply it to the tourism regions of Latin America and the Caribbean.

At an international level, the work model employed by the DTI Network itself has not gone unnoticed, having been exported by SEGITTUR to Ibero-America through the Inter-American Development Bank within the framework of the *Future*

Tourism Programme, Digital Transformation for the Reactivation of Tourism. With this in mind, with the essential impetus of the pioneering international destinations in the implementation of the DTI model with SEGITTUR, in response to the category of observer members of the Spanish DTI model Network, the Ibero-American Network of DTI was established in August 2022. This initiative, which is now closing in on its first birthday, is led by the Bogotá District Tourism Institute, which chairs the Network, the Medellín Undersecretariat of Tourism, which serves as the vice-chair, the Brazilian Ministry of Tourism, in the capacity as the institutional secretariat, the Cities of the Future Institute responsible for its technical secretariat and, finally, the municipality of Tequila through Tequila Inteligente, tasked with international relations. Initially driven by these destinations, it has not stopped growing in terms of its implementation and its actions are fully aligned with the DTI model promoted by the Secretary of State for Tourism through SEGITTUR.

The success of the DTI Network should not dilute the challenges it faces to continue satisfying the changing needs of national public managers, such as the difficulties in matching the means and current capacities at the service of the DTI Network, the growth and diversity of destinations that have expressed an interest in joining the Network over the last 2 years or the indisputable need to evolve the existing technological infrastructures to provide more specific or segmented services to its members; however, these must not be considered an impediment for the central administration, in collaboration with the regional administration, to continue guaranteeing its survival in response to the usefulness that local institutions at a municipal and supra-municipal level find in it as a meeting space and work toward implementing the best tourism policies.

References

- SEGITTUR. (2023a). *General protocol of action for participating, driving, supporting and promoting the Smart Destinations Network (DTI Network)*. https://www.destinosinteligentes.es/wp-content/uploads/2023/07/ProtocoloRedDTI_DEF_20230713.pdf
- SEGITTUR. (2023b). *Regulation for the operation of the management bodies of the Smart Destinations Network (Smart Destinations Network)*. Internal working document. https://www.destinosinteligentes.es/wp-content/uploads/2023/07/ReglamentoOrganosRedDTI_DEF_20230713.pdf
- SEGITTUR. (2022). *Code of Ethics for the Smart Destinations Network*. Internal working document. Available at: <https://www.destinosinteligentes.es/wp-content/uploads/2022/09/CodigoEticoRedDTI.docx>
- SEGITTUR. (n.d.). *Smart destinations*. <http://www.destinosinteligentes.es>

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Spanish Smart Tourism Destinations: Final Considerations and Future Lines of Work



Josep A. Ivars-Baidal

Abstract In the course of development of tourism policy in Spain, there has been a succession of different models of destination planning, fundamentally from the 1990s onward with the creation of the Tourism Excellence and Dynamization Plans, which reinforced the importance of strategic vision and local scale in tourism planning. Smart Tourism Destinations (DTI) constitute the most recent reference model and present good prospects for future developments. This paper gathers and expands on a series of reflections from previous work on the consolidation of DTI as a strategic planning and management model, identifying its contributions as well as its weaknesses and limitations, and concluding with a proposal for future lines of work.

1 Introduction

From a holistic perspective, Smart Tourism Destinations (DTI) are associated with the destination planning and management model of the new smart tourism scenario. This scenario is defined as a distinct stage in the joint development of tourism and information and communication technologies (ICT), based on the intensive use of technology and data for the integration of the physical and digital world, with the aim of improving efficiency, sustainability, and the tourism experience (Gretzel et al., 2015). However, although the concept of Smart Tourism Destinations is a topic with significant research output (Bastidas-Manzano et al., 2021; Carballido & Guevara-Plaza, 2021), its meaning and scope is still vague and imprecise (Gelter et al., 2020), and it is far from being generalized as a model applied internationally in destination management. Apart from the initiatives carried out in China and South Korea for the development of Smart Tourism Destinations, Spain is the main focus for the creation, application, and international dissemination of the model, mainly to Latin American countries. This Spanish Model, the model of the Spanish

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297

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Secretariat of State for Tourism, developed by SEGITTUR, has become an international benchmark, firstly, in smart tourism research, cited in pioneering work on the subject, and, subsequently, as an innovative approach to planning and management, recognized by international organizations such as the World Tourism Organization (UNWTO), and the Organization for Economic Cooperation and Development (OECD). Three Spanish cities (Malaga, Valencia, and Seville) have been selected as *European Capitals of Smart Tourism*.

This recognition is paradoxical when compared to the loss of relevance of the smart city in the urban policy agenda, despite the fact that the smart city concept initially inspired the DTI Model. This loss of relevance can be observed at the national and international levels in the face of criticism of, for example, the technocratic approach to the smart city, the dependence on public aid for the viability of projects and the lack of renewal of smart city plans and strategies (Ivars-Baidal et al., 2023a, 2023b). A study sponsored by the World Economic Forum (Merritt et al., 2021) warns of the increasing lack of explicit and comprehensive strategies in the development of the most advanced smart cities and the implementation of projects without an overall strategy or compartmentalized in different urban policies. In the face of this progressive dissolution of the smart city concept, the DTI is a solid and viable model for the planning and management of destinations.

2 Consolidation of DTI as a Planning and Management Model

The DTI Model arises at a time of crossroads in tourism planning in Spain for different reasons (Ivars-Baidal & Vera-Rebollo, 2019): The crisis of traditional tourism management models at the local level (FEMP, 2008); the progressive wear and tear of strategic planning, both from the urban and tourism point of view; and the challenge of adapting to the digitalization processes of the tourism system and its impact on destinations. Smart Tourism Destinations are considered as an institutional project (Mínguez & Ruiz, 2014) that take on these challenges and responds to new needs in destination management. These challenges and needs are addressed both by SEGITTUR and by different regional initiatives, notably the one carried out by the Valencian Institute of Tourism Technologies (INVAT·TUR), in parallel and coordinated with SEGITTUR initiatives.

The DTI Model is originally part of the positive perception of buzzwords such as smart city or smart tourism, but it is progressively taking root as an approach to destination planning and management, with the contributions, weaknesses, and limitations that will be analyzed in the following sections. From a research perspective, it constitutes an emerging approach to planning (Soares et al., 2021) insofar as, following the interpretative framework of Hall (2008), it raises new assumptions on which to act (the digitalization of tourism or the emergence of the smart tourist) and specific planning problems (the interpretation and management of new digital

business models, the need to avoid digital divides or the new forms of involvement of local society in planning). It also incorporates new working methods (Big Data, predictive analytics, etc.) and generates differentiated models both from a theoretical and applied point of view with different orientations, such as systemic (Ivars-Baidal et al., 2019) and ecosystemic perspectives (Perfetto & Vargas-Sánchez, 2018), those linked to competitiveness (Koo et al., 2016) and the creation of public value (Brandao-Cavalheiro et al., 2020).

Since the incorporation of the Smart Tourism Destinations as a program of the Comprehensive National Tourism Plan (PNIT, 2012–2015), SEGITTUR's DTI Model has progressed in various phases. Key milestones include the creation of an indicator system, its application to the pilot destinations, the development of various UNE standards in collaboration with AENOR and the establishment of the Spanish Smart Tourism Destinations Network in 2019. This is, therefore, a complex process, in constant development, which is not easy to assess given the difficulty of evaluating policies and initiatives that are still underway and which require a relatively long maturity period. From a more global perspective, the smart approach to planning and management in Spain is not limited to tourism policy. Smart city initiatives and their relationship with tourism need to be incorporated, as well as the technological policy on Smart Tourism Destinations developed by Red.es, and the measures with this orientation within the Sustainable and Integrated Urban Development Strategies (EDUSI), within the European 2020 Strategic Framework. These policies and programs, with different orientations and results, have not always been well coordinated, despite the interest of their complementarity (Ivars-Baidal et al., 2023b, 2023c).

All in all, the consolidation of the DTI Model is evident in the 635 members of the Spanish Network (according to data from the SEGITTUR website in June 2023), of which 454 are destinations, 91 collaborating companies, 87 institutional members, and 3 international observers. Interest in SEGITTUR's DTI Model is also growing in Latin American countries such as Argentina, Brazil, Colombia, and Paraguay, and training and technical assistance activities are multiplying in these countries in collaboration with the Spanish Agency for International Development Cooperation (AECID).

3 The Contribution of the DTI Model to More Ambitious and Innovative Destination Planning and Management

The definition of the Smart Tourism Destinations and the five pillars for its development (Governance, Technology, Innovation, Accessibility, and Sustainability) are very ambitious in their approach if we take into account the limited powers of the tourism administration at the local level. An integral perspective is adopted, which is necessary given the cross-cutting nature of tourism, but which, from an operational point of view, offers doubts as to its realization, as has happened previously

with other planning schemes such as those related to sustainable tourism destinations. Hence, from its inception, the approach raises doubts about its real scope, although subsequent developments show improvements in traditional tourism planning and management. Smart Tourism Destinations do not focus exclusively on the use of technology and data but offer a broader management framework where these uses can be integrated in a way that is theoretically more efficient and adapted to the needs of each destination.

In fact, even more than progress in the application of technological solutions, the implementation of the DTI Model is characterized by improved governance, undoubtedly benefiting from a more intensive and intelligent use of technology and data. Ivars-Baidal and Femenia-Serra (2020) describe three key areas in which the DTI Model restructures traditional tourism management. Resulting advancements can be seen in destinations with more progressive and proactive tourism management (Femenia-Serra & Ivars-Baidal, 2021), although they cannot be considered widespread throughout the entire DTI Network: This progress includes the extension of tourism management to address issues such as sustainability and accessibility, which require greater administrative coordination; the greater demand for data collection and exploitation, which requires more technical and economic resources; and the incorporation of innovation as a strategic activity, which strengthens collaboration with tourism, technology and consultancy companies, other government administrations and research centers.

The DTI Model is an embodiment of the concept of destinations that learn, of knowledge-based management (Cooper & Sheldon, 2010), thanks to two key initiatives: the indicator system as a reference for evidence-based management, which guides the Smart Tourism Destination action plans, and the work of SEGITTUR, in collaboration with the members of the DTI Network, in generating, disseminating and sharing knowledge through documents on a wide range of topics (best practices in digitalization of destinations, cultural heritage, sustainability, response to adverse futures, circular economy, and data spaces). The generation and dissemination of knowledge have facilitated identification, monitoring, and implementation of technological solutions in destinations and the exchange of experiences between them. Such activities have encouraged the development of companies specializing in the needs of smart destinations, mainly in the application of technologies and in the generation and analysis of data, which are currently a benchmark in the international arena.

In this regard, particularly noteworthy are the advances in digital marketing and business intelligence (Femenia-Serra & Ivars-Baidal, 2021), especially in the improvement of tourism intelligence systems and the ability to influence the entire travel cycle and develop more agile, flexible, and efficient actions. Likewise, the development of Smart Tourism Destinations has enabled a more effective response to the COVID-19 crisis (establishing protocols for action in tourism companies and services, communicating updated information to tourism agents, generating new sources of data, protocols for action in public spaces, etc.) and has provided destinations with useful tools for better management of various types of crises.

4 Limitations and Weaknesses of the DTI Model

Recognizing the ambitious nature of the DTI Model, it is easier to point out its limitations. The incorporation of sustainability, accessibility, technology, and innovation into the model implies a new look at tourism planning and management beyond a strictly sectoral vision and favors the need to strengthen the governance of destinations based on more innovative approaches. However, the transformative power of the DTI Model is limited. The DTI Model provides useful management tools for destinations but does not, in general, question the local tourism strategy, so the possibility of promoting structural changes of the scale required by many destinations when faced with the pressure of urbanization or the threat of climate change is limited. The DTI Model does not propose a vast process of social participation, nor does it encourage sufficient business involvement to rethink the tourism development model on a local scale. Consequently, it can produce significant incremental improvements in management, but it can also create inertia that is not adapted to the current aspirations of local society or to the changing tourism market. In view of this dynamic, it would be desirable to foster a closer and more direct relationship between Smart Tourism Destinations and the strategic instruments of the municipality, as well as a clearer integration with other binding policies such as urban planning or environmental policy.

This consideration is related to the difficulties for the DTI Model to cause a substantial change in the sustainability of destinations. González-Reverté (2019) highlights that the adoption of the DTI model in Spain does not entail a strategic consideration to progress toward higher levels of sustainability, while the Smart Tourism Destination indicator systems are insufficient to measure the environmental and social dimensions of sustainability (Ivars-Baidal et al., 2022). However, the possibilities of measurement and collaboration at the local scale offered by the DTI Model are considered positive and a good starting point for tourism sustainability policies with a greater scope (Aguirre et al., 2022; Molina Azorín et al., 2022).

The debate around the relationship between intelligence and sustainability has also taken place in the field of the smart city to show that a smart city strategy does not lead linearly to a sustainable city through the use of technological solutions (Ahvenniemi et al., 2017). The relationship between the development of the smart city and tourism governance, both in European and Spanish cities, shows a relatively low degree of coordination (Ivars-Baidal et al., 2023a, 2023b), implying a waste of the synergies between urban and tourism management. Moreover, the DTI Model has a strong urban bias, which hinders its development in rural environments or in the framework of inter-municipal cooperation. This weakness has not been an obstacle to integrating rural municipalities into the DTI Network. For this reason, it is necessary to work on adapting the model to these specific local environments, fundamentally in the development of the indicator systems and in the definition of supra-municipal cooperation formulas along the lines of the work recently undertaken by INVAT·TUR.

The DTI Model is fundamentally focused on public management, although it supports innovation processes at the local level in an interesting three-way collaboration framework (government, private companies, and research centers) for specific projects, often experimental and with public financial support. However, the integration of the tourism business sector in the development of Smart Tourism Destinations and in the different pillars that comprise this model is still weak, especially in the case of small and medium-sized enterprises. This is clearly evident in the lack of interoperability of technological systems at destination level, a problem that both the UNE 178504:2022 standard (Digital, smart hotel connected to smart destination/smart city platforms—Requirements and recommendations) and especially the future Intelligent Destination Platform promoted by the Ministry of Industry, Trade, and Tourism through SEGITTUR are attempting to address.

There has been a notable improvement in tourism intelligence systems in certain destinations such as the Costa del Sol or the city of Valencia. However, the advances are not universal and fall short of the expectations generated by the possibilities of technology and data generation and analysis. There is much room for improvement in the integration of smart city and smart destination systems, where both exist, and in the sharing of data between agents in the destination as a way to avoid excessive dependence on information provided by large tourism and technology operators (Booking, Google, etc.). In this context, the new concept of data spaces arises, sponsored by the European Union in different sectors, including tourism, which represents an opportunity to advance the sharing and reuse of data between different actors and types of users of the European tourism ecosystem, within a process that converges with the DTI Model's own approaches.

Finally, the continuity and future development of the DTI Model depend on minimizing or correcting some institutional aspects and practices, such as the use of the DTI Model as propaganda, the imitative adoption of intelligent solutions that do not adapt to local problems, the complexity of the administrative management of technology-based innovation projects, or excessive dependence on public funding for the development of smart projects and initiatives.

5 In Conclusion: A Proposal for Future Lines of Work

The assessment of the DTI model offers both advantages and disadvantages, but forms an interesting framework for the future progress of destination planning and management. Up to now, the DTI Model has been characterized by a fundamentally technical orientation and an instrumental value. However, its future contribution to the planning and management of destinations requires a strengthening of its strategic component and its ethical commitment. This would imply a change of mentality as proposed by Gretzel (2021a) from utopian thinking, which makes long-term smart tourism a reality, with systemic changes based on specific values and characteristics such as a sense of responsibility, a commitment to participation, inclusiveness, and a holistic vision. This progressive reformulation of Smart Tourism

Destinations makes it a suitable model to guide the ecological and digital transition of tourism destinations that the European Union demands, which recommends a greater interrelation between the Smart Tourism Destinations program and the Tourism Destination Sustainability Plans promoted by the General Secretariat of Tourism, in collaboration with regional and local administrations. To the same end, the development of the DTI Model should be better integrated with local planning instruments (urban, environmental, sustainable mobility, etc.) to the extent that these processes share objectives and financial resources, as well as social participation initiatives or indicator systems with similar orientations.

This approach would mean resizing the role of Smart Tourism Destinations in municipal management by promoting a more cross-cutting management of tourism activity, aligned with the reinforcement of administrative coordination that the DTI Model has brought about in destinations that have received the SEGITTUR award for their high degree of compliance with the indicators or for the application of the AENOR standard. However, although the DTI Model's concept and pillars are considered ambitious, this type of administrative coordination for a non-regulatory instrument such as the DTI Model is unrealistic and only has a benchmark value for destinations with a more advanced level of governance.

Without renouncing this more strategic vision with a broader transformative scope, the development of the DTI Model must continue to play a vital role in the task of rethinking and/or reinventing local tourism planning and management based on the following lines of work:

- Greater integration of the DTI Model in the definition of the local tourism strategy. This pillar involves going beyond the technical-instrumental role of the DTI Model to reinforce the processes of social participation and a four-way approach, integrating civil society in the innovation processes associated with the development of Smart Tourism Destinations with greater esteem for social innovation that is compatible with and complementary to technology-based innovation. Similar to the role played by the City Labs as a tool for collaborative planning and co-creation in urban areas, it is undoubtedly interesting to promote the creation of Smart Tourism Laboratories as the spearhead of innovation processes in the DTI Network. Local tourism strategy must undertake an unequivocal commitment to sustainability in all its dimensions and various scenarios, including those that involve adjustments in the growth of supply and/or demand or degrowth measures.
- The holistic vision of the DTI Model is a good starting point to strengthen the cross-cutting nature of tourism management as opposed to purely sectoral approaches. Gretzel's (2021b) proposal on Smart DMOs is in line with this, emphasizing the need to strengthen the role of DMOs in destination governance. This can be achieved through a broad representation of local interests and the capacity to mobilize and coordinate destination stakeholders through agile management that strengthens the connection between the tourism and technology sectors. This will make it possible to take advantage of the opportunities and mitigate the risks and impacts that may arise from the smart tourism ecosystem.

On a more practical level, as part of a collaborative research project, the NAO Group (2023) advocates for the concept of DMOCracy, understood as a shift from destination promotion or management as an isolated economic activity, to tourism seen as an activity with cross-cutting implications that requires a stronger governance approach through greater citizen participation and accountability in accordance with governance principles.

- Adaptation of the DTI Model to the local context. With regard to the previous line of work, the DTI Model cannot be limited to the application of a standardized management model and requires an in-depth study of the singularity of each destination. It is essential to advance in proposals adapted to spaces with lower population density and fewer resources and capacities in local administrations, generating efficient collaboration mechanisms at a supra-municipal level.
- The constant progress of the indicator systems linked to DTI has improved the application of the model and led to a change in the culture of local tourism management. However, it is worth addressing a series of aspects that require further consideration: the improvement in the quality and reliability of the data; the level of disaggregation of information; the incorporation of new environmental indicators, with special attention to those related to climate change, and new social indicators; and a better integration of procedural indicators with other status and/or results indicators (of a tourism, environmental or socio-economic nature), which really define the state of the destination's progress and provide valuable information for decision-making. It is advisable to prioritize the most relevant indicators, coordinate local information systems, and make better use of the comparative analysis of relevant indicators within the DTI Model.
- Digital transition and adaptation to the global tourism ecosystem. The digitalization of tourism activity implies the need for agents in the destination to adapt proactively. Firstly, adaptation must occur in local management and, where appropriate, in the managing body of the destination, taking into account the added value they can provide in the current tourism scenario. Traditional activities are losing relevance (such as face-to-face service in tourist offices), and the risk of redundancy of public services with those provided by tourism and technology operators is very high (Dredge, 2016), such as the creation of mobile apps for tourists, which requires redefining the functions of tourism management to focus on the activities that provide the destination with the greatest return. Secondly, smart tourism management requires consolidating collaborative processes at the local level that generate competitive advantages for companies in key activities such as digital marketing, sales, co-creation of experiences, and the development of smart systems. The creation and development of the Smart Destination Platform represents an opportunity to provide technological solutions to municipalities that are moving toward becoming Smart Tourism Destinations, forming two processes that feed back into each other.
- The DTI Model has contributed to the generation of new smart tourism systems whose application should be extended to a greater number of destinations while addressing aspects that are insufficiently developed: data sharing at the destination as opposed to the mere purchase of information; the incorporation of data

from national, regional or sub-regional operations; the cross-cutting integration of data on a local scale that allows for cross-referencing information from different areas (urban planning, environmental, tourism, etc.); the achievement of greater information detail, both in terms of time (specific events) and space (areas or points of interest in the destinations); and the development of an effective open data strategy.

- The prominent positioning of the DTI Model in the international scope constitutes an opportunity for its dissemination and for the export of tourism knowledge of companies and destinations, as occurs in different Latin American countries. This way of working should be reinforced and extended to other regions in order to support greater synergies between the tourism and technology sectors and the R + D + i systems, thus increasing their capacity for innovation.

These lines of work have both a theoretical and a practical dimension and can be worked on locally and within the framework of the DTI Network, as a collaboration platform that represents added value for the future development of the DTI Model. After more than a decade of implementation, the future of the DTI Model seems more linked to strengthening governance and innovation processes than to the use of technology and data, a necessary but not sufficient condition for the transition to Smart Tourism Destinations.

References

- Aguirre, A., Zayas, A., Gómez-Carmona, D., & López Sánchez, J. A. (2022). Smart tourism destinations really make sustainable cities: Benidorm as a case study. *International Journal of Tourism Cities*, 9, 51. <https://doi.org/10.1108/IJTC-01-2022-0006>
- Ahvenniemi, H., Huovila, A., Pinto-Seppä, I., & Airaksinen, M. (2017). What are the differences between sustainable and smart cities? *Cities*, 60, 234–245. <https://doi.org/10.1016/j.cities.2016.09.009>
- Bastidas-Manzano, A. B., Sánchez-Fernández, J., & Casado-Aranda, L. A. (2021). The past, present, and future of smart tourism destinations: A bibliometric analysis. *Journal of Hospitality and Tourism Research*, 45(3), 529–552. <https://doi.org/10.1177/1096348020967062>
- Brandao-Cavalheiro, M. B., Joia, L. A., & Cavalheiro, G. M. (2020). Towards a smart tourism destination development model: Promoting environmental, economic, socio-cultural and political values. *Tourism Planning and Development*, 17(3), 237–259. <https://doi.org/10.1080/21568316.2019.1597763>
- Carballido, A., & Guevara-Plaza, A. (2021). El concepto de smart destination en la investigación turística. Revisión sistemática de la literatura para su definición y normalización. *Cuadernos de Turismo*, 186(1), 545–548. <https://doi.org/10.6018/TURISMO.492781>
- Cooper, C., & Sheldon, P. (2010). Knowledge management in tourism: From databases to learning destinations. In D. G. Pearce & R. Butler (Eds.), *Tourism research: A 20–20 vision* (pp. 215–227). Goodfellow Publ.
- Dredge, D. (2016). Are DMOs on a path to redundancy? *Tourism Recreation Research*, 41(3), 348–353. <https://doi.org/10.1080/02508281.2016.1195959>
- Federación Española de Municipios y Provincias (FEMP). (2008). *Modelos de Gestión Turística Local*. Principios y Prácticas, Barcelona, Federación Española de Municipios y Provincias y Secretaría General de Turismo.

- Femenia-Serra, F., & Ivars-Baidal, J. A. (2021). Do smart tourism destinations really work? The case of Benidorm. *Asia Pacific Journal of Tourism Research*, 26(4), 365–384. <https://doi.org/10.1080/10941665.2018.1561478>
- Gelter, J., Lexhagen, M., & Fuchs, M. (2020). A meta-narrative analysis of smart tourism destinations: Implications for tourism destination management. *Current Issues in Tourism*, 24(20), 1–15. <https://doi.org/10.1080/13683500.2020.1849048>
- González-Reverté, F. (2019). Building sustainable smart destinations: An approach based on the development of Spanish smart tourism plans. *Sustainability*, 11(23), 6874–1–24. <https://doi.org/10.3390/su11236874>
- Gretzel, U. (2021a). Conceptualizing the smart tourism mindset: Fostering utopian thinking in smart tourism development. *Journal of Smart Tourism*, 1(1), 3–8. <https://doi.org/10.52255/SMARTTOURISM.2021.1.1.2>
- Gretzel, U. (2021b). The smart DMO: A new step in the digital transformation of destination management organizations. *European Journal of Tourism Research*, 30, 3002. <https://doi.org/10.54055/ejtr.v30i.2589>
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electron Mark*, 25(3), 179–188.
- Group NAO. (2023). *White paper on DMOCracy*. Group NAO.
- Hall, C. M. (2008). *Tourism planning: Policies, processes and relationships* (2nd ed.). Harlow.
- Ivars-Baidal, J., Casado-Díaz, A. B., Navarro-Ruiz, S., & Fuster-Uguet, M. (2023a). Smart tourism city governance: Exploring the impact on stakeholder networks. *International Journal of Contemporary Hospitality Management*, 36, 582. <https://doi.org/10.1108/IJCHM-03-2022-0322>
- Ivars-Baidal, J. A., Celdrán-Bernabeu, M. A., Femenia-Serra, F., Perles-Ribes, J. F., & Vera-Rebollo, J. F. (2023b). Smart city and smart destination planning: Examining instruments and perceived impacts in Spain. *Cities*, 137, 104266. <https://doi.org/10.1016/j.cities.2023.104266>
- Ivars-Baidal, J. A., Femenia-Serra, F., Celdrán-Bernabeu, M. A., & Giner-Sánchez, D. (2023c). Reinventing destination management and planning: taking stock of a decade of smart destinations development in Spain. In A. Blanco-Romero & M. Blázquez-Salom (Eds.), *Spanish tourism geographies: territorial diversity and different approaches*. Springer Nature (in press).
- Ivars-Baidal, J. A., Vera-rebollo, J. F., Perles-ribes, J., Femenia-serra, F., & Celdrán-bernabeu, M. A. (2022). Sustainable tourism indicators: What's new within the smart city/destination approach? *Journal of Sustainable Tourism*, 0(0), 1–24. <https://doi.org/10.1080/0966958.2.2021.1876075>
- Ivars-Baidal, J. A y Femenia-Serra, F. (2020), La construcción del destino inteligente: avances en investigación y gestión, In Simancas, M. & Peñarrubia, P. (eds.), *El valor de los datos turísticos*, : Tirant Humanidades, pp. 43–66.
- Ivars-Baidal, J., & Vera-Rebollo, J. F. (2019). Planificación turística en España. De los paradigmas tradicionales a los nuevos enfoques: Planificación turística inteligente. *Boletín de la Asociación de Geógrafos Españoles*, 82, 2765–1–31. <https://doi.org/10.21138/bage.2765>
- Ivars-Baidal, J. A., Celdrán-Bernabeu, M. A., Mazón, J.-N., & Perles-Ivars, Á. F. (2019). Smart destinations and the evolution of ICTs: A new scenario for destination management? *Current Issues in Tourism*, 22(13), 1581–1600. <https://doi.org/10.1080/13683500.2017.1388771>
- Koo, C., Shin, S., Gretzel, U., Canon, W., & Chung, N. (2016). Conceptualization of smart tourism destination competitiveness. *Asia Pacific Journal of Information Systems*, 26(4), 367–384. <https://doi.org/10.14329/apjis.2016.26.4.561>
- Merritt, J., Antunes, M. E., & Tanaka, Y. (2021). *Governing smart cities: policy benchmarks for ethical and responsible smart city development*. World Economic Forum 31. https://www3.weforum.org/docs/WEF_Governing_Smart_Cities_2021.pdf
- Mínguez, M., & Ruiz, P. (2014). Los destinos turísticos inteligentes en España: ¿Un proyecto institucional o el futuro del sector?. En A. Fernández Tabales, E. Navarro-Jurado (Eds.), *Espacios turísticos e inteligencia territorial: Respuestas ante la crisis. Actas del XIV Coloquio*

de Geografía, Turismo, Ocio y Recreación. Sevilla: Universidades de Málaga y Sevilla. Red de Impresión (pp 65–78).

- Molina Azorín, J. F., Tarí, J. J., López Gamero, M. D., Pereira Moliner, J., Pertusa Ortega, E. M., & Antón López, A. I. (2022). Los destinos turísticos inteligentes y la sostenibilidad. *Revista de Estudios Empresariales. Segunda Época*, 2, 51–71. <https://doi.org/10.17561/rec.n2.2022.7041>
- Perfetto, M. C., & Vargas-Sánchez, A. (2018). Towards a smart tourism business ecosystem based on industrial heritage: Research perspectives from the mining region of Rio Tinto, Spain. *Journal of Heritage Tourism*, 13(6), 528–549. <https://doi.org/10.1080/1743873X.2018.1445258>
- Soares, J. C., Domareski Ruiz, T. C., & Ivars-Baidal, J. A. (2021). Smart destinations: A new planning and management approach? *Current Issues in Tourism*, 25, 2717. <https://doi.org/10.1080/13683500.2021.1991897>

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Epilogue, by President of SEGITTUR

Dear reader, we trust that you have found this manual interesting, written with a view to describing the Spanish model for the strategic management of Smart Tourism Destinations and the aim of offering a deep understanding of the model for its adaption and implementation in any tourism space, optimising its sustainable and smart development. To this end, should you decide to use it, we encourage you to share your own experiences with the Smart Tourism Destination Model, becoming a contributor to this network of managers that helps us update and calibrate the model. As we have explained, the Smart Tourism Destination Model is a dynamic, strategic management tool that is subject to continuous review. It is updated with a view to including the social, economic, legal, environmental, or technological challenges identified in the destinations that impact their competitiveness, facilitating and compromising their adaptation and progress. In such a way that the changes and trends identified by our analysts have been incorporated into the areas, requirements and indicators in which the Smart Tourism Destination Model is structured, as part of a process of continuous update and renewal, ensuring that the Model responds to the needs and challenges of the destinations, thus improving their resilience in the face of potential new crises.

As can be deduced from the major structural pillars of the Smart Tourism Destination (DTI) Model, it represents a comprehensive destination managerial model, which takes on the complexity inherent to tourism management, addressing the major challenges facing the digitalisation of destinations, offering tools to ensure that this technological transition is efficient and enables the truly sustainable management of tourism activity, while connecting with the needs and desires of both tourists who visit the destinations and the local population, offering everybody a quality experience, in line with the expectations created, improving their well-being and quality of life.

The DTI Model was drawn up with a view to developing a managerial instrument at the service of Spanish society, with SEGITTUR serving as an entity under the

Secretary of State for Tourism of the Spanish government. Publishing and disseminating the model for the first time, making it accessible to all destination managers, forms part of our commitment to public service and aims to facilitate its adoption and implementation in tourism destinations, helping them in their process of pursuing the Sustainable Development Goals approved by the UN (2015) in the 2030 Agenda. In short, it is a tool at the service of the best tourism destination managers to improve their analyses, diagnoses, and intervention capabilities in the territories in which they exercise their leadership.

Its purpose has been none other than to provide all interested DMOs with a detailed description of the core elements that make up the Model evolution over the past decade and which has been implemented in more than one hundred destinations, as well as how to describe the theoretical-scientific framework which underlines the DTI Model.

As is the case with any manual, it aims to both help disseminate the know-how gathered throughout the DTI Model development and implementation amongst those who are not familiar with it and provide a guide for facilitating its implementation in destinations and thus harness the benefits offered by its adoption.

We understand, and we have verified this elsewhere, that the DTI Model described requires adaptations of form and substance when it comes to implementing it in realities that are particularly different from those presented by Spanish destinations. Sometimes the language, terminology, and concepts themselves may vary. In other cases it is the challenges, priorities, or urgencies that may be different. The approach pursued is to structure a theoretical model that is flexible enough to allow the incorporation of new elements without betraying its essence, without failing to assure a common core that makes it possible to obtain an acceptable level of homogeneity and comparability between the results obtained by tourism destinations implementing the DTI Model.

The DTI Model aims to integrate dominant logic in a good part of the tourism development models of the last half century around concepts such as tourism promotion, quality, or competitiveness. The model responds to tourism sector's awareness of the series of public policies that have been required for it to be developed as a successful economic activity. It therefore aims to include the stakeholders who make up the territories, in particular the citizens who inhabit them, into its focus, based on the deep conviction that tourism happens locally and must be managed territorially.

It has not been by any means a simple process, we have had to start from the scratch, adopt an innovative approach, gather together a series of ideas emerged across the different tourism policies, and put all of them together to characterise the DTI Model. As a result, the old and new managerial policy approaches underpin the proposed innovative smart Spanish Model for tourism management. In sum, the DTI Model definition was promoted by the strong will of a relevant part of the Spanish public policy makers who, aware about the complexity and the kind of challenges faced by tourism are evolving, have designed a comprehensive and updated managerial methodology for the tourism sector.

The solving problems process that affects tourism destinations based on a specific public policy requires prior work to identify and define them and entails

scheduling in the DMOs agenda resolution of the problem as a goal, defining the objectives to be achieved, agreeing preferences and priorities based on the resources and means available, enabling the comparison of the alternative courses of action in terms of technical and economic efficiency, and finally selecting and implementing the best alternative. And, finally, it will be necessary to assess the results and repetitive learning in response to the results obtained. The proposed DTI Model responds precisely to these purposes: a standardised working methodology, which serves as a guide for the DMOs when dealing with solving previously identified and defined tourism public problems.

In this line of thought, it is worth mentioning the World Tourism Organisation (UNWTO) publication in 2019 of the “Guidelines for Institutional Strengthening of Destination Management Organisations (DMOs): Preparing DMOs for new challenges”, which in addition to strongly encourage that destinations implement a Smart Tourism Destination Model based on the five pillars that Spain uses states “...Many factors account for the increased focus on effective destination management, all of them urging destination management organizations (DMOs) to face and adapt to new challenges. From traditional marketing and promotion boards the trend is for these entities to increasingly enlarge their scope to become all embracing DMOs, aiming to enhance the competitiveness and sustainability of destinations within a harmonious relationship between the residents and visitors...” (UNWTO, 2019, p. 32). And the DTI Model is just that: A model which expands the scope of action of destination managers under a new updated public mandate, as other international organisations have recognised, within them the OECD, the Inter-American Development Bank (IDB) or the World Travel & Tourism Council (WTTC). The destination is the main backdrop for tourism operations and is where the tourist experience takes place. It represents the sum of the space, public services and private companies that provide tourist services. The tourist’s consumption takes place in this complex network during their stay, meaning the better synchronised and aligned the actions of public and private parties, the more successful the destination will be and the more satisfying will be the tourists and residents experience.

It is for this reason that this Manual challenges, in the first person, mainly the local managers, as we are convinced that efforts must be focussed on the local public administration, which is the authority in charge of the public services that support the destination’s activities and on the tourism companies that make the tourist experience possible and hopefully memorable.

And we do so from the position of Spain being a reference and one of the world's main tourism destinations, in addition to its leadership in the tourism industry and the public policies that it has been successfully applying to the tourism sector. We trust that many other destinations and developed or developing tourism countries understand that getting in-depth knowledge of the Spanish tourism model experience will help them to avoid certain mistakes and learn from good practices. It has always been the desire of the Secretary of State for Tourism, and therefore SEGITTUR, to contribute to the development of more sustainable and responsible tourism everywhere worldwide, and we stand that the DTI Model is and will be an essential tool of public policy in tourism affairs.

Lastly, in relation to the future projection of the Smart Tourism Destination Model, we are currently working on an essential tool for the Model to achieve its full potential: the Smart Destination Platform, based in Benidorm (Spain). This platform will facilitate the integration of private and public databases held by the different administrations whose management affects tourism, providing managers with access within a reasonable amount of time to timely information that helps them optimise their decision-making, improving the tourist experience without compromising the quality of life of the residents or the natural and cultural heritage.

In short, at SEGITTUR, on behalf of the Secretary of State for Tourism of the Spanish government, we keep striving to boost and ensure the technological development and innovation of the tourism sector in Spain, a strategic sector in our economy with a notable impact on the international image of the country and, therefore, a nudge for our exports and a facilitating factor for our international relations.

Mr. Enrique Martínez Marín

President of SEGITTUR

Madrid, January 2024