

## Article

# Proposal of New Strategies for Smart Tourism Destinations in the Challenging New Reality: A Commitment to the Technology–Sustainability Binomial

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**Abstract:** This paper aimed to investigate the response of smart tourism destinations (STDs) to the COVID-19 crisis, specifically regarding sustainability, which—along with information, new technologies, and governance—is a key element of STDs. First, we conducted a brief literature review regarding tourism sustainability. Secondly, we performed a case study of several STDs to determine the sustainable actions implemented in response to the current crisis, the results of which are presented in this paper. Thirdly, we assessed these STDs' primary sustainability actions and developed a strategy proposal that can be followed by destinations in similar situations. This proposal is intended to be evaluated by the studied STDs for validation or adaptation. Far from a definitive solution, our proposal was designed as one possible tool to avoid the disorganisation and uncertainty suffered in crisis situations such as the COVID-19 pandemic.

**Keywords:** tourism sustainability; smart tourism destination; COVID-19; tourism; tourism intelligence; sustainability; smart destination



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## 1. Introduction

### 1.1. Smart Tourism

So-called smart tourism destinations (STDs), a new concept that combines ideas of destinations and intelligence, have been developed in recent years [1]. The popularity of the STDs has been increasing since 2013 [2] and has been proposed as a new formula for the management of tourism areas.

Smartness comprises the core components of information and communication technology (ICT), innovation and leadership, and social capital supported by human capital. ICT is a crucial aspect of all STDs, but both virtual ICT and real components need to be considered during the design stage [3,4] because all components that constitute smartness must be integrated to make a tourism destination a smart one [5]. STDs emerged from and are a crucial part of smart cities [6]. ICT, together with sustainability, plays a crucial role in the development process of smart cities [7] and social networking sites' influence in sustainable tourism behaviour [8]. The experience of smart tourism is hereby represented by real-time information, prolonged engagement, and above all the offer of personalised services [9]. One major example of a city that has been adopting and implementing the smart strategy is Barcelona, Spain, which aims to be a leading global model [10].

“It seems to be commonly accepted that the concept of STD still needs to be formalised” [11], and there is “still confusion about what a smart city is” [12]. Nevertheless, there is a clear basis for the definition of an STD comprising several elements. In broad

terms, sustainability, technological innovation, information processing, and governance constitute the so-called smart model proposed as an alternative to the conventional one [13]. This model has even facilitated the emergence of a methodology commercialised through institutions such as Aenor (Spanish abbreviation for Asociación Española de Normalización y Certificación—which meets the certification standards UNE 178501 [14] and UNE 178502 [15]) and Segittur (Spanish abbreviation for Sociedad Estatal de Gestión de la Información y las Tecnologías Turísticas, S. A.—which adheres to the STD network) [16] with the capability of attracting international destinations.

The COVID-19 crisis situation in the sector, which “has perhaps been the most affected of all economic sectors” [17] (p. 326), has highlighted the use of alternative management systems such as smart management, which—although not configured as a tool to alleviate temporary situations such as the current one—can aid the development and assessment of sustainability actions deployed by tourism destinations in response to the COVID-19 crisis. Smart management can also help develop similar strategies that might be useful in the new social and health context.

This paper is structured as follows. First is an introductory section, which briefly presents and contextualises the research; this is followed by a brief overview of sustainability in the tourism sector (the main references for this overview are included in the bibliographical section). Subsequent sections comprise the description of the research methodology, the main research objective, and the preliminary hypothesis. Next, the results of a case analysis of the studied STDs are presented and analysed. This is followed by the proposal of the aforementioned crisis management strategy and, finally, the main conclusions of the paper.

## 1.2. Tourism Sustainability

In 1987, the World Commission on Environment and Development stated that the concept of sustainable development refers to meeting the needs of the present generation without compromising the ability of future generations to meet their own needs [18], especially regarding economic, social, and environmental development. In 1983, increased awareness of sustainable development led to the creation of the Commission on Development and Environment by the United Nations [19]. This concept was further complemented in 1991 by the World Conservation Union, which stated: “sustainable development implies the improvement of the quality of life within the limits of ecosystems” [20].

On the other hand, the concept of sustainability has been involved in the traditions of many indigenous communities, and it has been associated with other adjectives such as ecological, green, and blue [21]. Both sustainability and sustainable development are deeply interconnected, and their importance is recognised today. Under these two concepts, natural resources must be used rationally in order to main human survival. Accordingly, the availability of these resources must be guaranteed now to ensure their availability in the future [22].

In ecological terms, sustainability requires that the economy must be circular, that is, it follows cyclical patterns similar to those found in nature [23]. Thus, attention should be paid to the design of production systems that use resources and renewable energies without generating waste—i.e., they generate recyclable byproducts [23]. Social change is necessary to promote practices that allow society to adapt to and mitigate these impacts and the risks associated with global climate change, which are potential sources of social conflicts and health deterioration. Therefore, it is essential to understand the optimal quota for the usage of resources that enables the conservation of biological and functional diversity, thus ensuring the stable provision of goods and services for humanity now and in the future [24].

In the tourism sector, sustainability has emerged as a key driver of destination competitiveness due to the demand for more environmentally sustainable products and services [25]. “What made the global movement for sustainable development different from other environmental efforts that preceded it, was the recognition of the interrelationship

between the critical elements of economic development, social policy and environmental protection" [26]. It has even been shown that sustainability has a significant impact on the competitiveness of a destination [27,28], even though most of the existing tourist city models are still more focused on competitiveness itself rather than overall sustainability [29].

The World Tourism Organisation (UNWTO) defines sustainable tourism as tourism that meets the needs of today's tourists and generates income and social welfare while protecting natural resources [30]. Certification is one way to gain new customers because it demonstrates the fulfilment of responsible and competitive tourism [31]. Countries that have chosen to develop sustainable tourism have branded themselves with a positive market image and thus managed to significantly increase their revenue.

Other countries have started developing sustainable tourism for different reasons, such as responding to current demands, protecting natural and cultural resources, gaining competitiveness, and increasing their gross domestic product. The defining characteristics of an STD include an attractive, diverse, and protected natural heritage; the development of indigenous tourism products; high business interest in a sustainable destination; and increasing environmental and social awareness. The disadvantages of a destination not offering sustainable tourism include progressive increases in fossil-fuel use and international tax penalisation for air fuel intended to curb climate change [27].

According to the Secretary of State for Tourism, Fernando Valdés, STDs "represent a commitment to sustainable tourism development, and entail a series of benefits, including the revaluation of the destination through innovation and technology; an increase in competitiveness; an improvement in efficiency, as well as the quality of the stay of visitors and the lives of residents" [32].

It is important to mention that sustainable development and social responsibility should not be officiated and handled by a single institution; they should instead be managed by all organisations involved in the sector [33]. Thus, tourism should rely on not only the leaders of the business sector but also employees of it and related sectors to positively contribute to sustainable social and environmental development.

Since smart management can help in the development and assessment of sustainability actions in the new social and health context, this study is intended to provide information on the effectiveness, adequacy, and utility of the intelligent model in conjunctural situations similar to those of the present moment. The authors additionally propose a strategy that could be developed by STDs in similar crisis contexts in order to facilitate organised and sequenced crisis management.

## 2. Materials and Methods

We used a combined methodology for this research. The first part comprised the analysis and study of the literature related to the chosen subject matter. Second, we conducted an STD case study that provided sufficient information to achieve the objectives and corroborate our initial hypothesis.

The preliminary hypothesis is as follows: STDs have developed sustainable strategies in order to alleviate the effects of the current COVID-19 crisis. Accordingly, our main objective was to explore and describe the state of these sustainability strategies in smart tourism destinations.

Given the scope and diverse implications of the topic, it was necessary to adopt a broad methodological framework specific to the previously established objective. Furthermore, this framework required a double approach concerning both quantitative (data, figures, and variables) and qualitative (data interpretation based on the doctrine and the used theoretical framework) research. This twofold methodological approach was applied throughout the whole study.

In short, following preliminary development (in accordance with the initially set-out research objectives) and robustness testing, the methodology was adjusted to that of the case study in order to properly analyse the specific and novel concept of smart tourism.

The research method is in line with the previously established objectives. The study's methodology is based on several different phases, starting from the initial objectives, and following from the initial approach to the analysis of the results, which enables us to identify the most appropriate results for each area of knowledge.

The research process is based on several well-differentiated phases that start, in fact, from the initial objectives and that allows, after an initial approach, to begin to establish a targeted search of sources, always trying to reference works from different years, but with the clear idea that the most current studies and technical literature correctly covers the phenomenon that we want to investigate (a phenomenon that, like all tourism issues, changes considerably over time).

After a systematic overview of the literature, the actual methodological framework was established based on a combination of both quantity and quality types of methods. The quantitative approach allowed us (following previously used and designed assumptions) to see the meaning and focus of the numerical data. At the same time as the different cross-referencing of variables was carried out, for the purposes of obtaining the quantity review, the analysis was based on the case studies. To analyse these case studies (and always based on the dual qualitative methodological approach, which is especially relevant in the tourism industry), a focus was placed on a qualitative approach.

Afterwards, a final phase was reached, in which both results of the two approaches, quantitative and qualitative, were combined, and it was possible to draw joint conclusions in line with the objectives designed at the beginning of the research.

### 3. Results

#### 3.1. Case Studies

After the theoretical framework regarding tourism sustainability was developed, it was considered appropriate to carry out a case study with the main objective of determining the strategies, main actions, and orientations that different STDs have developed over the last year in response to the COVID-19 crisis.

For this purpose, a questionnaire was delivered to the technicians and department workers responsible for sustainability management in different STDs that comprise the Network of Smart Tourism Destinations established by Segittur [17]. The questionnaire can be found in the Supplementary Materials. Given the characteristics of this research, the questionnaires were sent to the technicians with high responsibility in sustainability actions as well as in the destinations' smartness conversion process. Therefore, the questionnaires were answered by municipal managers and/or directors of public entities and foundations who were mainly dedicated to tourism development at the destination.

Regarding the participating destinations, all of them followed the Spanish STD model, which is defined by Segittur. Accordingly, information was obtained about the orientation and working formula that the member destinations developed during the COVID-19 crisis. This also offers the possibility of evaluating the effectiveness of its methodology which is being exported to other countries, such as Mexico. Therefore, the surveyed destinations were mainly Spanish, but also included an international destination in Mexico from different environments (rural and urban) and with different characteristics (varying from coastal, sun and beach, inland, cultural, and nature).

On the other hand, it is essential to clarify that the entity responsible for the membership of the destinations (Segittur) offers a smart conversion model with possibilities of application, briefly, to any territory, which allows for a generic and global analysis of the use of this methodology and its application in a crisis such as the current one. This broad view of the responses is the motivation for not listing the destinations surveyed, since knowing their identification could imply the analysis of a specific territory which does not correspond to the main objective of this study, which is knowledge about the performance of the methodology established by Segittur in crisis times.

This variety is in line with the flexibility of the application of the Spanish methodology and that, despite presenting different characteristics, all make use of the methodology

established by the network “based on governance, sustainability, accessibility, innovation and technology as the backbone” [17] (paragraph 1), thus allowing an overall assessment and validation of the methodology proposed by Spain.

Although an invitation to participate in the questionnaire was presented to the forty-seven destinations listed by Segittur [18], only twelve sent responses, so the final sample number of the study was twelve. It should be clarified that the low participation rate in the study was due to both a lack of interest and the actual states of the projects for conversion and transformation, as reported by the contacted managers. In some cases, the destinations formed part of the network, but their projects had stagnated for various reasons. In other cases, no actions were undertaken during the last year due to the health crisis. Nevertheless, the final number of participants enabled the clear establishment of action trends.

We used a combined methodology. First, we conducted a review of the literature related to our subject matter, which facilitated our argumentation and development of the different questions. Next, we conducted an analysis of the main actions that destinations (intelligent or not) undertook during the pandemic, using those with the greatest national and international tourism impacts as reference. Finally, we proposed strategies that demonstrated effectiveness over the past year and that are typical of the usual management of tourist destinations.

We used a self-completed questionnaire that was divided into four sections. The first section included six generic introductory questions with single, multiple, and rating answers, with the aim of ascertaining the general opinion of the interviewees on the study subject. This introductory section was followed by three other specific sections dedicated to the knowledge of the economic, environmental, and socio-cultural protection measures undertaken by each destination. It was considered appropriate to interpret sustainability to its full extent, considering its influence in the environmental, economic, and socio-cultural fields, thus following Aenor’s own standard UNE 178501:2018 indicators and tools for smart destinations [16]. This interpretation allowed for the complete overview of the measures prioritised by each destination. The questions in these last sections were multiple choice. Finally, an open question was included for those respondents who considered it appropriate to indicate their further opinions, suggestions, or reflections.

Contact with the (technical) managers of each destination and the mass mailing of questionnaires were conducted throughout the months of April, May, and June 2021, with responses being received in May and June of the same year.

Given the diversity of question types (open, closed, and multiple choice)—considered appropriate due to the variety of territories surveyed and the peculiarity of the health crisis, as well as our desire to allow destinations to indicate their actions in an open manner—a combination of qualitative and quantitative analysis was required.

The surveyed destinations ranged from coastal destinations with conventional, mass-tourism-oriented development models to inland destinations identified with rural, nature, cultural, and urban tourism. The intention of this research was to collect data on the widest possible variety of destinations in terms of scale, location, and type of main tourism product in order to determine the value and adaptability of the proposed smart methodology, thereby enriching and strengthening our results. The identities of the destinations are not included in the paper in order to avoid the evaluation of the destinations outside the scope of this study, thus respecting the respondents’ request for anonymity.

We must clarify that although the actions that local authorities (mainly the city councils or associations of municipalities in the present cases) can carry out in this context are limited, these institutions are responsible for the development of tourism activity in their territories, which is why they were the respondents in this case analysis. Additionally, local authorities possess key information regarding the effects and consequences of crises in their own territories, as well as the needs of each of the agents that comprise the destination, which could be useful in broader sustainability research.



We caution against generalising our case study results, as they are specific to the context of each destination. When designing and applying study and analysis models, it is necessary to consider both the historical and contemporary characteristics of a destination.

### 3.2. Main Results

Regarding the introductory questions, 90% of respondents considered sustainability as one of the priority axes in the recovery of the destination as a result of COVID-19. The same percentage also noted that being a smart destination had increased their preparedness for the current crisis. Although the affirmative percentage was significantly higher than the negative, 10% of respondents reported no confidence in either sustainability or the smart destination project. An initial, informal telephone interview with the project leaders revealed that this opinion may reflect the stagnation of some of these destinations' projects.

In terms of the direction of the strategy carried out during the crisis, 81.8% of the respondents focused on safety and hygiene (which are closely linked to the health crisis) and 54.5% focused on actions related to promotion, aid, and financial support.

The questionnaire also offered the possibility of detailing specific promotional actions. Although the responses were varied, they can be mainly grouped into promotion in local markets, greater emphasis on heritage and nature resources, and actions in social networks.

In terms of the incidence of these actions, 72.7% had increased them with respect to previous years. The remaining percentages correspond to the maintenance of the previous years' levels (9.1%) or no activity (18.2%). On a scale of 1 to 5 (where 1 is the highest and 5 is the lowest), 55.6% rated their success at 4 and 44.4% rated their success at 3.

After analysing these introductory questions, we examined the block dedicated to economic protection measures, contemplating direct actions for the hospitality industry and unemployed staff in sectors with impacts on tourism. The results of the first section showed that 90% of destinations had established measures in favour of tourism entrepreneurship, 80% of destinations had established promotional campaigns to stimulate consumption in the sector, 60% of destinations had established measures for the exemption of nightclub taxes, and 50% of destinations had established measures for the exemption of other taxes or charges. The low incidence (10% of all) of measures related to (general) training, advice for the implementation of health protocols, direct aid to families, or the creation of associations to carry out joint actions is noteworthy.

In terms of direct aid/actions for unemployed staff in the sector, 55.6% developed actions to maintain employment, 33.3% offered training for these affected employees, and 33.3% opted to directly hire these staff. Additionally noteworthy is the support for the creation and start-up of a new company related to guided tours developed by one of the destinations. The lack of training actions can be interpreted as a missed opportunity to take advantage of this period to improve the training of these destinations' human capital, which could have been strengthened, recycled, and adapted in response to the challenges that the tourism market will soon face.

Finally, regarding actions in sectors with impacts on tourism, 87.5% of destinations supported cultural and leisure companies and 62.5% of destinations supported tourism-related companies (souvenirs, active tourism, tourist guides, etc.).

Concerning the environmental protection measures, 90% of the destinations had carried out capacity controls and determined the carrying capacity of their resources. Almost half of the respondents (45.5%) had carried out the nonaggressive disinfection of the environment and used new technologies to count tourists, such as car parks. The lack of use of new technologies in this area is puzzling because the use of ICT is a defining factor of an STD. Only 36% of destinations had protected the natural environment due to overload in the demand for open spaces and natural areas, and only 9.1% had carried out air quality measurements.

The next section was focused on socio-cultural protection measures. All (100%) destinations reported having adapted their cultural and leisure offers to health protocols, 81% had organised related events and activities, and 45% had provided minimum cultural services.

Regarding public health actions, 100% of destinations had distributed information on safety and protocols to avoid COVID-19, 81% had collaborated with health agents, and 45% had carried out specific health actions. These results were somewhat expected because some of the actions are obligatory and essential for the recovery of tourist demand. Regarding heritage protection strategies, 81% of the surveyed STDs had carried out actions to maintain the accessibility of their main heritage and cultural resources, which were particularly affected by closures, capacity limitations, and access protocols.

Table 1 summarises the results, including information on the actions that were developed by at least 50% of the surveyed destinations (actions undertaken by less than 50% were regarded as presenting low development), which were furthermore classified according to three percentage ranges (from 50% to 70%, from 71% to 80%, and from 81% to 100%) to clearly demonstrate which actions were the most accepted and promoted by the different destinations. It was found that actions with the greatest acceptance and degree of development were related to aid for tourism entrepreneurship, resource carrying capacity, the adaptation of the cultural offer, the employment of COVID-19 protocols, resource accessibility, and the promotion of the involvement of the population and civil associations in the recovery of the local tourism sector. Most of these actions are clearly identified with the main axes that typify an STD, specifically the axes of sustainability, information (promotion), and governance.

**Table 1.** Main actions developed by the surveyed smart tourism destinations (STDs).

Type of Measurement	Percentage		
	50–70%	71–80%	81–100%
<b>Economical Protection</b>			
Measures in favour of tourism entrepreneurship			X
Exemption of the velador tax	X		
Exemption from other taxes/fees	X		
Promotional campaigns to stimulate consumption in the sector			X
<b>Environmental protection</b>			
Control of capacity and carrying capacity			X
<b>Social and cultural protection</b>			
Adaptation of cultural offer			X
Event organisation		X	
Collaboration with health workers		X	
Diffusion of COVID-19 protocol			X
Maintenance accessibility resources			X
Involvement of population/associations in recovery			X

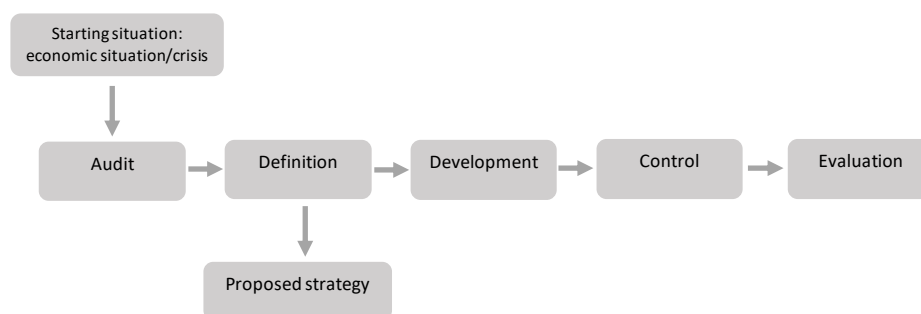
Source: own elaboration.

Although governance, cooperation, and collaboration are not directly identified with sustainability, we decided to evaluate the involvement of the population and/or civil associations in possible destination recovery strategies. In this case, 63.63% of the surveyed destinations developed related actions, which is noteworthy because governance is one of the main STD axes and a possible solution to the current tourism crisis [34].

### 3.3. Tourism Strategy Proposal for STDs in the New Social and Healthcare Context

Once the case analysis was completed and the main data were extracted, we decided to propose an action strategy that could allow STDs to rapidly respond to the current and similar crises with the goal of minimising the effects of the situation. This strategy was not intended to work as an all-situation solution; rather, as specified above, it was intended to alleviate the disorganisation and uncertainty in destinations caused by temporary situations outside the market, especially health situations that directly affect the mobility of people and, consequently, tourist flows. Our proposed strategy could be useful for destination managers, either as-is or as a starting point, and we intend to submit it to the studied STDs for validation, assessment, and evaluation, with the results being considered in future research.

The elaborated phases reflect the objectives of this study, as well as the distribution of the obtained results, as illustrated by Figure 1.



**Figure 1.** Phases of the prior determination of the proposed strategy. Source: own elaboration.

The main results of the questionnaire were used as reference for the design of the strategy, comprising basic strategic pillars that include specific actions. Before proceeding with the development of the proposed strategy, however, it is necessary for a destination to plan its actions based on several briefly described phases, as follows.

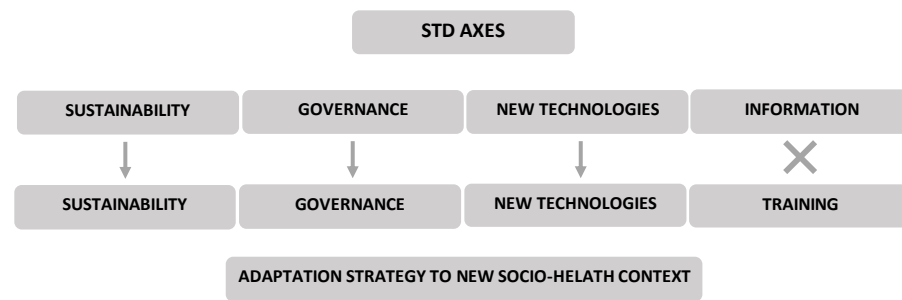
- **Audit phase:** In this phase, the destination undergoes self-assessment to establish the initial situation, the main affected sectors, and the estimated impact of the crisis. Accordingly, the destination should also analyse whether the thus-far developed strategy is compatible with the current situation.
- **Definition phase:** Once the characteristics of a destination's situation are determined, it is possible to define the strategy to be followed in order to overcome the situation. This is one of the most crucial and important of the five phases, as overcoming the ravages of the crisis depends on its appropriate definition and adaptation. In the definition phase, the main objectives of the strategy should be established.
- **Development phase:** This phase is characterised by the implementation of the strategy that was previously designed with the aim of achieving the established objectives.
- **Control phase:** The control of the developed actions is crucial in the determination of possible deviations and their possible corrections.
- **Evaluation phase:** Finally, the developed strategies and actions are assessed regarding their efficiency, success, and effectiveness.

After the development of the different preparation phases, the strategy to be followed is established. This strategy is based on the four main pillars of sustainability, training (as a tool for reconversion), governance, and new technologies. These four fundamental pillars of STD recovery were defined in reference to the main actions developed by the destinations during this pandemic. As it can be observed, the strategic pillars mostly correlate with the major defining axes of an STD (technology, information, sustainability, and governance), with information replaced by training because the main purpose of the strategy is to recover from and adapt to the new market context.

Similarly, the four strategies correspond to the characteristics of versatility, flexibility, and adaptation to different crisis situations. Likewise, these four main blocks are considered to be relatively affordable for the destinations' management bodies, insofar as they allow for direct action without the need for external validation. Figure 2 compares the different defining axes of an STD and the four main blocks that comprise the proposed strategy with the aim of improving their assimilation and understanding.

As specified above, the discordant axis in the proposed strategy corresponds to training, which is considered key to achieve full recovery of the sector due to the characteristics of the new context. This strategy is not intended to turn a destination into a smart destination; rather, it aims to work with the defining methodology of an STD through a focus on adapting destination management in socio-health crises such as the current one. Each component of the strategy is explained below.





**Figure 2.** Comparison between the axes of an STD and the proposed strategy for adaptation to the new socio-health context. Source: own elaboration.

### 1. Sustainability

Throughout this essay, specifically in the case analysis, the importance of sustainability in relation to the surveyed STDs has become evident, although more due to exploitation than prior planning. We accordingly argue the importance of sustainability not only as a defining and fundamental axis of an STD but also as a basic tool for destination recovery. Although the current COVID-19 crisis does not seem to have an environmental aspect, the organisation and reactivation of tourist flows—regarding both their paralysis and adaptation to the so-called new normality—have direct influence in this area. Sustainability also influences other aspects, such as the social environment, economy, and culture (among others), so it is considered paradoxical that the studied destinations had not considered the possibility of proposing more ambitious and conclusive actions during this crisis period. Table 2 shows different actions proposed under the sustainability axis.

**Table 2.** Economic, environmental, and socio-cultural protection measures.

Economic Protection Measures
<b>Direct aid/actions for the hospitality sector</b>
Measures in favour of tourism entrepreneurship Exemption of direct taxes/fees Exemption from other taxes/duties Promotional campaigns to stimulate consumption in the sector Further initiatives
<b>Aid/actions for sectors with a tourism impact</b>
Support for cultural and leisure enterprises Support for souvenir companies, active tourism activities, tourist guides, etc.
Environmental protection measures
Control of gauging and carrying capacity Measurement of air quality (only in case of health issues) Protection of the natural environment due to preferences for visiting safe natural environments (control of overloading) Nonaggressive disinfection of the medium Use of new technologies for counting, parking area, capacity, transit, etc.
Socio-cultural protection measures
<b>Socio-cultural actions</b>
Event/activity organisation Adaption of the cultural and leisure offer to health protocols Provision of minimum cultural services
<b>Public health actions</b>
Specific health actions Collaboration with health workers Outreach/safety information/protocol to avoid COVID-19
<b>Heritage Protection Actions</b>
Actions to maintain accessibility to the main heritage/cultural resources

Source: own elaboration.

## 2. Governance

Regardless of the nature of the crisis or situation, governance (i.e., the participation of all of the agents that make up a destination) is a crucial tool—not only in contexts of apparent normality in the management of destinations but also in times of crisis or conjuncture because it allows for a variety of possible solutions, a variety of points of view, a complete vision of what has happened and its effects on all destinations' agents, and a consensus and acceptance of the actions undertaken to overcome the crisis. Actions in this line are described in Table 3.

**Table 3.** Cohesion actions.

<b>Cohesion Actions</b>
Involvement of the population/civil associations in possible formulas for destination recovery
Creation/stimulation/proposal of joint management body
Cross-cutting decision making

Source: own elaboration.

## 3. New technologies

The questionnaire results show that there was little use of new technologies during the health crisis, even though they are both one of the fundamental axes of this type of destination and one of the main references in terms of the ability to offer solutions, tools, and facilities for crisis management.

Technological solutions for the management of health crises (such as capacity counting, statistical data control applications for the number of infections, and information applications) should be simple and easy to deploy. Therefore, in current and potential socio-health crises, it is essential to use and promote technological solutions to enable intelligent crisis management, total agent involvement, and the correct design and planning of appropriate actions. Some of the main actions proposed within this strategic block are presented in Table 4.

**Table 4.** New technology actions.

<b>Aid/Actions for New Technologies</b>
Promotion of technological tools among the involved actors
Use of new technologies in crisis management
Use of technological tools to support other strategies (promotion, information, dissemination, and accessibility)

Source: own elaboration.

## 4. Training/reconversion

The training of human capital in the tourism sector is key to the subsequent development of the tourism service. The level of training has a direct impact on not only customer service, with the consequent application of service quality parameters, but also the planning, management, and promotion of tourism. In order to compose the theoretical framework of this study, a wide range of studies regarding the link between human resource training and the success of a sector (both contemporary and classical) were reviewed. The literature review showed that concern regarding the relationship between constant training and development of human resources and the strength and competence of the tourism sector has existed for decades [35–37].

A period of stagnation (such as that presently occurring), with a total freeze in activity and the consequent cessation of work activities, is an excellent opportunity to improve, extend, and enhance the training of workers in the sector.

In the same way, the current and similar situations have invited reflection on whether it is advisable to exclusively specialise in a sector (the tourism sector in this case) that has shown a rapid capacity for both volatility and recovery. It may be necessary to consider the

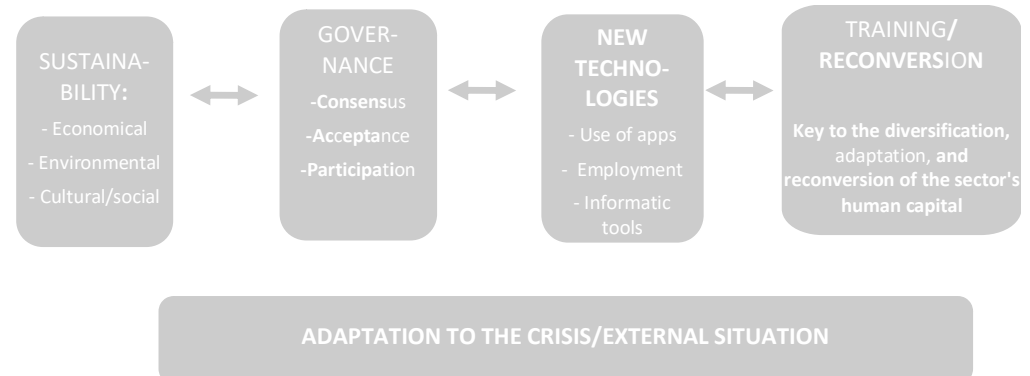
possibility of reorienting the qualifications of the concerned staff in order to redirect their professional careers to other sectors (in the event that the tourism sector does not manage to assimilate the total existing labour demand) or to promote other types of activities in the tourism sector in order to achieve a diversification of economic activities that could result in economic sustainability. Proposed actions in this category are shown in Table 5.

**Table 5.** Direct aid/actions for unemployed and affected staff in the tourism sector.

Direct Aid/Actions for Unemployed and Affected Staff in the Tourism Sector
Training offer for affected employees
Recruitment of affected employees
Actions to maintain employment
Actions for staff restructuring
Diversification of main economic activity (tourism): training in new industries and sectors
Improvement of training/intensification in the tourism sector

Source: own elaboration.

In summary, we proposed a strategy that is intended to aid the development of these four major blocks, with different specific actions in each, and to be a starting point to facilitate, improve, and simplify the work of destinations when faced with situations such as the COVID-19 pandemic. However, the proposal's versatility allows for the incorporation, completion, and introduction of new, more specific actions adapted to each destination; although the proposal tends towards homogenisation, the reality of each territory is different, especially regarding different scales, types of tourism product, relevance, and positioning, among other factors. Figure 3 summarises the proposed strategy in times of crisis such as the COVID-19 situation.



**Figure 3.** Proposed strategy for STDs in situations of economic crisis such as the current COVID-19 pandemic. Source: own elaboration.

#### 4. Discussion

Sustainability is a widely accredited concept in economic and territorial development—especially in the tourism sector, where it has become not only an essential working tool that is intimately related to the maintenance of and respect for environmental resources but also a defining element of new conceptualisations in the field of tourism, such as STDs and so-called sustainable tourism, whose “development is indispensable for economic growth” [38]. We demonstrated that though sustainability must be considered in its entirety in order to cope with the current crisis, actions related to environmental sustainability have been scarce, practically limited to capacity control, and in accordance with health and prevention criteria but not with the protection of environmental resources.

As also reported by De la Ballina [39], the authors of this research assumed that tourism has changed over the last few decades in accordance with a tourism paradigm that considers the importance of technology. Thus, new ICTs have been transforming all tourism-related processes, with STDs being one of the most remarkable cases. This has also

been confirmed in an earlier study, which found that ICTs foster innovativeness and affect marketing and the overall management of tourism destinations [40]. The STD concept requires using technological criteria through processes that are always in accordance with the perspective of sustainability while also promoting connectivity—which is a key issue in tourist destinations, especially those clearly affected by the most current trends—as much as possible.

The studied destinations demonstrated an understanding of the maintenance and adaptation of the socio-cultural offer as an essential management element; hence, 100% reported having adapted their cultural and leisure offer and 81% reported having organised related events and activities. These results affirm the importance of this type of activity in attracting potential tourists and as a dynamizing element of local tourism markets.

Although the competences of city councils (normally responsible for the development of the tourist destination at the local level) are not related to the generation of employment, these councils may be able to directly hire affected staff through social employment funds and direct aid (among other processes), though these strategies have been limited.

Although the STD project is considered a key element in the management of the health crisis, we found no evidence of a common strategy in all destinations, possibly explained by localism in the management of each destination (common in tourism), a lack of leadership at the national level with a clear and accepted strategy, a lack of knowledge about the evolution of the pandemic, and a lack of preparation for crises resembling the current one. Current STD methodologies present solutions to specific situations through intermediation between companies and various service providers [41] and a guide to accelerate the reactivation of STDs in the context of COVID-19 to members of the destination network [42], though these methodologies do not include direct actions on sustainability. It can be deduced from this idea that the methodological responses of destinations (in the form of recommendations) have been concentrated on mitigating the most immediate effects, and it is not yet possible to establish whether the current work methodologies will be adapted to the possibilities of experiences of future crises. It is in this context of foresight that sustainability (together with governance) has an important role. In the studied cases, intelligence could have been used to minimise the effects of the crisis, and it was shown that the combination of the axes that characterise STDs, including sustainability, could be useful for dealing with (though not entirely avoiding) crises.

This study contributes to the discourse on STDs and their strategies to alleviate the effects of the current COVID-19 crisis and aims to bridge the gap in this new research field. It increases the knowledge about smart destinations considering the importance of the technology–sustainability binomial. The case studies among different STDs were analysed according to the proposed research questions. We proposed a possible strategy for STDs to follow in crisis situations similar to the COVID-19 pandemic. Our proposal was based on the fundamental pillars of regular destination management—more specifically, the so-called intelligent pillars, which are particularly important during crises. We intend to submit our proposal, which was inspired by the main actions undertaken by the different surveyed destinations over the last year and a half, to the studied STDs for assessment regarding their own needs and adaptations. The proposal was designed not as a definitive solution for all situations but as a possible tool for mitigating the disorganisation and uncertainty caused by crises.

Finally, this paper is intended to facilitate new research into strategies with a common, effective, tested, and widely supported methodology that STDs can apply in situations such as the COVID-19 pandemic. Considering the differences of the studied regions (differences that have major impacts on customer acquisition, customer loyalty, and market share), we identified a common factor that could be essential in achieving sustained growth under the “new normality”. In addition, our described pillars of management can form the basis for new strategies in the tourism sector that will enable the intelligent design and generation of tourism’s usual “pull factor” for all economic sectors.

Therefore, it is important that all variables are assessed both before and during management implementation. This constant planning and evaluation will enable each destination to adapt to crises. Furthermore, STDs must be careful to establish linearity across the main pillars (sustainability, governance, technology, and training), and the specific characteristics of which should also be considered by management.

Regarding sustainability, management should directly consider inclusive actions in accordance with the current pandemic scenario that have severely affected the economy, society, and (more specifically) the tourism sector. All parameters related to this issue are specified in Table 1. Regarding governance, management actions should be linked to cohesion actions from a tourism perspective (directly related to corporate social responsibility), i.e., giving back to society. Technology (generally referring to ICT and specifically referring to software applications) may be the variable with the most direct impact on marketing strategies because management and its different pillars are always directly related to technological progress and because tourism companies and organisations are classified as highly technological. In accordance with prior study findings [3], the technological factor has been designated as key to adaptation. Finally, “training” is of high priority for tourism companies because it is directly related to human resources, so management supervision could be a decisive factor in future crisis adaptation, as shown in Table 5.

In conclusion, smart tourism can bring important economic and social contributions to society at large. Furthermore, technological progress leads to significant social achievements that may also lead to the development of management strategies that enable increases in sector revenues.

## 5. Conclusions, Limitations, and Future Research

In this research, we explored how STDs responded to the effects of the ongoing COVID-19 crisis, highlighting the importance of these destinations regarding the rest of the tourism sector and the economy in general due to variables related to globalisation. We accordingly analysed novel strategies without losing sight of the constant search for sustainability and environmental respect in the tourism sector.

We carried out a precise bibliographic search that was guided by our previously established research objectives. We proposed strategies that can be carried out by tourism destinations to alleviate the effects of the current global crisis and to aid tourism recovery under the consideration of multiple spheres of action: a generic one (applicable to the whole sector) and more specific and concrete scenarios for each studied typology.

The primary contributions of this study are its analysis and discussion of strategies that can be used to sustain tourism prosperity in the face of current and future crises, with an emphasis on the importance of tourism—especially the relatively novel but significant concept of smart tourism—as a key sector of the economy with a decisive socio-economic “pull factor” for other economic sectors.

In this study, we sent questionnaires to all national and international destinations listed by Segittur. Nevertheless, only twelve destinations participated, so the main limitations of this study are its geographical factor and sample size. Nevertheless, our proposal could be used by STDs to avoid disorganisation and uncertainty in crisis situations. Future research could focus on other smart tourism destinations that are currently unlisted by Segittur or how the array of proposals can aid STDs once the COVID-19 crisis has been overcome.

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