REQUEST FOR EXPRESSIONS OF INTEREST
CONSULTING SERVICES

Selection #: RG-T3660-P004
Selection Method: Full Competitive Selection
Country: *Caribbean*
Sector: *Tourism*
Funding – TC #: *RG-T3660 – ATN/FG-18311-RG*
TC name: *Future Tourism Program: Digital transformation for Tourism Reactivation in the Context of Covid-19*
Description of Services: *Consultancy to develop assessments of the level of technological readiness of tourist destinations and technology pre-investment plans.*
Link to TC document

The Inter-American Development Bank (IDB) is executing the above mentioned operation.   For this operation, the IDB intends to contract consulting services described in this Request for Expressions of Interest.

Expressions of interest must be delivered using the IDB Portal for Bank Executed Operations (http://beo-procurement.iadb.org/home) by: ***November 5, 2021,*** 5:00 P.M. (Washington D.C. Time).

The consulting services ("the Services") include *[see enclosed Draft of Terms of Reference.]*

Eligible consulting firms will be selected in accordance with the procedures set out in the Inter-American Development Bank: *Policy for the Selection and Contracting of Consulting firms for Bank-executed Operational Work* - GN-2765-4. All eligible consulting firms, as defined in the Policy may express an interest. If the Consulting Firm is presented in a Consortium, it will designate one of them as a representative, and the latter will be responsible for the communications, the registration in the portal and for submitting the corresponding documents.

The IDB now invites eligible consulting firms to indicate their interest in providing the services described above in the draft summary of the intended Terms of Reference for the assignment. Interested consulting firms must provide information establishing that they are qualified to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). Eligible consulting firms may associate in a form of a Joint Venture or a sub-consultancy agreement to enhance their qualifications. Such association or Joint Venture shall appoint one of the firms as the representative.

Interested eligible consulting firms may obtain further information during office hours, 09:00 AM to 05:00 PM, (Washington D.C. Time) by sending an email to: *Adela Moreda (adelam@iadb.org); and Elizabeth Chávez (elizabethc@iadb.org).*

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RG-T3660-P004

Draft TERMS OF REFERENCE

Future Tourism Program:

Digital Transformation in Tourism in Latin America and the Caribbean

CONSULTANCY TO DEVELOP ASSESSMENTS OF THE LEVEL OF TECHNOLOGICAL READINESS OF TOURIST DESTINATIONS AND TECHNOLOGY PRE-INVESTMENT PLANS Caribbean Countries

1. Background and Justification

1.1. Before the arrival of COVID-19, tourism in Latin America and the Caribbean (LAC) was experiencing remarkable growth in recent years, becoming an important engine for growth and economic diversification. Estimates by the World Travel and Tourism Council (WTTC) suggest that in 2019, tourism accounted for 10% of all Latin America's GDP and 14.1% of the Caribbean's GDP.[1] Tourism was also responsible for 9% of total employment in Latin America and 15.4% in the Caribbean. Tourism has been one of the economic activities most affected by the pandemic. WTTC estimates point to a decline in total regional tourism GDP of USD -228 billion in 2020 (-45.5%), including direct, indirect and induced impacts of the contraction of domestic and inbound tourism.

1.2. To boost the recovery of the tourism sector, it is essential to support the business tourism network, as well as understand the new priorities of tourism demand. In this context, the role of digital and emerging technologies is critical to accelerate the reactivation of the sector and ensure its future profitability. In addition, prior to COVID-19, the tourism sector was already immersed in a digital revolution, which had a disruptive effect on all production and consumption processes in the tourism sector. Likewise, the sector was immersed in a digital mobility revolution, with an exponential increase in tourism services provided from mobile devices. Therefore, during the tourism reactivation phase, it is of vital importance to incorporate technologies that allow the development of a seamless physical and digital tourism experience which complement each other.

1.3. On the other hand, there is an accelerated global convergence of emerging technologies (such as artificial intelligence and machine learning, virtual and augmented reality, 5G communications, blockchain technology and the Internet of Things), which can be important allies in managing the profound changes in the configuration of the post-COVID-19 tourism market. These technologies can create opportunities to reinforce the recovery of tourism, strengthening not only the management of health security, but also environmental and social sustainability in destinations, to avoid returning to certain models of mass tourism development which were fostered prior to the pandemic.

1.4. However, not all companies are prepared to take advantage of the opportunities of digitalization, especially in LAC´s tourism sector, in which micro/small/medium enterprises (MSMEs)2 are dominant: 99% of the companies in the hotel and restaurant subsectors are micro or small enterprises. In general, the performance of MSMEs in the region presents weaknesses that have persisted for decades, since their production and innovation processes are based on obsolete or unproductive technology. This is reflected in a significant labor productivity gap when compared to large

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[1] Including indirect and induced effects.

[2] Economic Commission for Latin America and the Caribbean (ECLAC), 2018, *MSMEs in Latin America. Fragile performance and new challenges for development policies.*

companies.3 An OECD report4 confirms the positive role of digital transformation to improve business performance and dynamism, warning about the widening of productivity gaps between sectors with greater and lesser digital intensity.

1.5. The technological readiness of LAC's tourism sector lags far behind competing regions globally, as shown by the 2019 World Economic Forum (WEF) Tourism Competitiveness Report,5 in which LAC´s tourism surpasses only sub-Saharan Africa in terms of digital intensity. In LAC, mobile broadband is the dominant method for internet connection (67.5%), but still 1/3 of the population does not have access to digital connectivity (40 million households). Structural constraints in the region include access and connectivity fragmented by income levels, insufficient network speed, poor digitalization of production processes and gaps in the development of digital skills.6

1.6. It is therefore essential to support the digitalization of LAC tourism to boost its competitiveness and resilience in the face of crises such as COVID-19, as well as in the face of previous structural challenges linked to the profitability and socio-environmental sustainability of the sector. However, the pace and scale of digital transformation depend on both global and local conditions.7 The different tourism subsectors are subject to very heterogeneous challenges and opportunities with regard to their digitalization readiness, as there are significant contrasts in the capacities of their respective human resources, in the ability to access resources and market information, as well as in their levels of associativity to generate economies of scale. There are also different challenges and opportunities depending on the geographical environment in which tourism companies are located, since those sited in cities can benefit from easier access to digital infrastructure and have greater opportunities for business association than those situated in rural/natural or remote areas. The effort to promote technological dissemination and assimilation in the tourism sector entails considering subsectoral and geographical differences.

1.7. This technical assistance is essential to move towards the establishment of a network of smart tourism destinations in LAC, under a common integrative methodological framework, but with sufficient flexibility to meet the specificities of the different types of destinations. For the purposes of this technical assistance, the following definition of smart tourism destination from the State Society for the Management of Innovation and Tourism Technologies (SEGITTUR) in Spain has been used: *A smart tourism destination (STD) is an innovative tourist destination, built on cutting-edge technological infrastructure, which guarantees the sustainable development of the tourist area, accessible to all, facilitates the interaction and integration of the visitor with the environment, increases the quality of the tourism experience and improves the quality of life of the residents.* The STD approach offers a very useful strategic and operational framework to move in an orderly manner towards the digitalization of LAC destinations.

1.8. In this context, this technical assistance will support a first set of destinations in LAC, to determine their level of technological maturity and provide them with the best management and investment instruments to face their respective current challenges in terms of competitiveness, sustainability and resilience, thus accelerating their transition to a STD status.

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[3] ECLAC, 2018, *MSMEs in Latin America. Fragile performance and new challenges for development policies.*

[4] OECD (2019), "Productivity Growth in the Digital Age," *Going Digital Policy Note*, Paris. www.oecd.org/going-digital/productivity-growth-in-the-digital-age.pdf

[5] Within the framework of the WEF Tourism Competitiveness Index, the technological readiness sub-index is evaluated for the six world regions being analyzed, consisting of several indicators such as broadband penetration, mobile phone coverage, and use of information technologies for transactions between companies and with consumers. http://www3.weforum.org/docs/WEF_TTCR_2019.pdf

[6] Universalize access to digital technologies to address the impacts of COVID-19; https://www.cepal.org/sites/default/files/presentation/files/final_final_covid19_digital_26_agosto.pdf

[7] Aalborg University, 2018, *Digitalization in Tourism: In-depth analysis of challenges and opportunities,* Denmark.

2. Objective of the Consultancy

2.1. The objective of this technical assistance is to apply technological assessment instruments, foster knowledge dissemination, and develop technological pre-investment plans that: (i) accelerate the use of digital and emerging technologies in LAC tourist destinations; and (ii) stimulate coordination of the tourism ecosystem around shared plans of technological investment.

3. Scope of Consulting Services

3.1 Parallel to this consultancy, the IDB is launching a call to select 10 destinations in LAC that will benefit from this technical assistance. The criteria that will be used for the selection of the beneficiary destinations include:

    a) Collaboration agreement between authorities and tourism companies to work toward the digitization of the destination, and eventually toward its conversion into a STD. The agreement will include the identification of geographical limits of the destination, description of competitive advantages, and current importance of tourism in the local economy compared to other economic activities (to show the relevance of the sector in the destination).

    b) Designation of a public-private task force to accompany this technical assistance and execute the investment plan afterwards.

    c) Preparation of a technical proposal on the main needs/challenges of the destination and benefits sought with the STD framework. The mere acquisition and application of technologies does not make a destination smart, so it is essential that the technical proposal identifies the theory of change that is intended to be achieved with greater technological development. This is about revolutionizing the management of the destination in accordance with new technological possibilities and the capacity for local action.

3.2 This technical assistance will be implemented for a minimum of three and a maximum of four destinations in the Caribbean. The destinations will be subnational and will not correspond to national or supranational tourist routes. The beneficiary destinations in the Caribbean will be announced after the closure of the call launched by the Bank.

3.3 The selected consulting firm must carry out, in each of the beneficiary destinations (maximum of four), all the activities related to the objective of this technical assistance, grouped into two differentiated axes: (i) Preparation of assessments of the level of technological readiness of the beneficiary destinations, according to specific challenges; and (ii) Preparation of action and pre-investment plans based on main technological gaps/opportunities identified.

4. Key Activities

4.1 The work to be carried out by the consultants will include at least the following activities:

    4.1.1 Detailed preparation of the **work plan and schedule** for the technical assistance. The work plan will be intended to oversee, monitor and evaluate the intermediate steps necessary for the delivery of the products, so it must be detailed.

    4.1.2 **Preparation of assessments of the level of technological maturity of the destinations selected in the call of the Bank.** The consultants are expected to carry out an in-depth assessment of each of the beneficiary destinations, based on their respective challenges, addressing current versus potential use of technology as an element to overcome these challenges. The challenges faced by the destinations can be sourced from one or more of the following categories:

a. *Profitability* of destinations and tourism companies, including aspects related to competitiveness, quality, labor productivity, internationalization, creative capacity, intelligence and marketing systems, accessibility, among other issues.

b. *Resilience and safety*, including health safety, climate management, and disaster management.

c. *Socio-environmental sustainability,* including social inclusion and environmental protection.

d. *Tourism governance,* including public-private coordination and with civil society.

4.1.3 The assessment must be driven by specific improvement targets -based on the challenges prioritized by the destinations- and examine the availability or lack of infrastructure and technological solutions necessary to achieve them. It is about promoting profitable, sustainable, safe and resilient destinations, considering technology as a means to achieve those conditions, not as an end in itself. The challenges that will ultimately be addressed in the assessment will be agreed with the public and private sectors of the beneficiary destinations.

4.1.4 It is expected that the consultants will base their work on a homogeneous assessment framework, although there will be flexibility to meet the specific challenges of each of the selected destinations. To this end, consultants are provided with a reference methodological framework (see annex), partially based on the STD methodology led by SEGITTUR. Consultants will be able to draw inspiration from previous diagnoses, carried out both in LAC and in other geographical environments, and make modifications to the methodological framework provided. Technology will be the element of cross-sectional analysis for each of the challenges ultimately addressed in the assessments.

4.1.5 The assessments must determine the level of technological maturity of the public entities related to the planning and management of the destination to overcome the identified challenges, but they must also identify the most relevant types of tourism companies affected by the prioritized challenges in the destinations. Therefore, consultants are expected to collect both primary information among the target stakeholders (surveys, interviews, focus groups, etc.), and secondary data when carrying out the assessments. In the case of the public sphere, the assessment must in all cases include the needs and technological situation of the tourism authorities, in addition to the authorities with jurisdiction for the challenge in question (e.g., environmental authorities for environmental sustainability challenges); in the case of the private sector, a sample will be taken from the subsectors (hospitality, etc.) affected by the challenge in question. It will be important to support all this information collection with databases/dashboards for each destination that can be easily understood by the different stakeholders involved in the assessment.

4.1.6 The assessment will include for each identified challenge:

a. <u>User needs:</u> Identification of needs of public and private tourism managers, and civil society (where appropriate) of the destination, to be covered under each challenge.

b. <u>Current technology situation:</u> Through an inventory and characterization of the technological resources currently available in the destination for the activities identified as critical, from the public and private spheres, to overcome each of the challenges of the destination. The inventory should identify the current situation of technologies applicable in a transversal way to all challenges, as well as technologies specific to each challenge. In the case of transversal technological uses, at least the telecommunications infrastructures of the destination will be characterized and, specifically, the level of coverage/access to mobile telephony (voice and data) and broadband, by speed and type of technology (such as fixed location lines; digital subscriber lines on copper pairs or ADSL; cable lines with

hybrid fiber and coaxial solutions; fiber optic lines; wireless lines, etc.). The analysis should determine whether the level of connectivity is adequate for the needs of tourism users or whether it inhibits tourism development within the framework of the identified challenges. For specific technological uses, a tentative list of the types of technologies to be analyzed -according to the challenge of the destination- is included in the annex.

c. <u>Gaps and opportunities in the use of technologies with respect to the desired situation</u>, assessing the required resources (in infrastructure and technological solutions) to improve tourism management under each of the identified challenges. The diagnosis will compare the needs of public/private/ civil society users with current technological conditions. Gaps will be covered, at least with respect to the following elements:

    i.   Infrastructure, architecture, and equipment
    ii.   Software (proprietary or open source)
    iii.   Interoperability
    iv.   Availability of open data/ability to reuse information
    v.   Safety
    vi.   Human resources
    vii.   Monetization models and financial resources
    viii.   Institutional and legal aspects

4.1.7 **Preparation of technology pre-investment plans in the destinations**: depending on the results achieved in the assessments, the consultants will prepare an action plan and detailed pre-investment plan for each destination, identifying the priority technological investments according to the challenges to be overcome. These plans should include measurable and concrete objectives and a detailed description of each technological investment necessary, the identification of those responsible, the schedule and a detailed budget. The selection of each technological investment must be supported by an analysis of alternatives that take into account socio-economic costs and benefits, in addition to the technical and financial feasibility of each solution.

4.1.8 The plan should be based on the identification of innovative but realistic mechanisms given the current context of public-private financing in each destination. Therefore, each plan must take into account the regulatory framework, investment models and tools and lessons learned in each destination with respect to the financing of public-private projects, customizing the proposed solutions in each case. The plans will prioritize investments aimed at the consolidation of the assets used to provide public services, as well as the facilitation of businesses access to basic technologies for their survival/profitability/sustainability.

4.1.9 The action and technological pre-investment plan must include at least the following issues:

a. Measurable objectives based on challenges prioritized by the destination.
b. Design of a realistic strategy for the use of technologies to overcome each challenge; the expected theory of change and the identification of technological priorities will be established based on the current situation of the destination vs. the desired one.
c. Detailed description, technically and functionally, of the technological solutions proposed to overcome each challenge, including cost-benefit analysis.
d. Detailed budget and funding proposals to promote and maintain the elements of the plan: infrastructure, people, hardware, software, and other elements necessary to implement technology improvements and updating.
e. Technology development actions, including staff training and user awareness of the scope and functionality of the proposed technologies.
f. Proposed governance for the implementation of the plan.

g. Detailed design of the 5-year operational plan, with schedule, people responsible, and expected results.

h. Evaluation process that enables progress monitoring on objectives and making the appropriate corrections in response to new developments and opportunities.

5. Expected Results and Products

5.1 <u>Detailed work plan and schedule</u>, with objectives to be achieved and target audiences of each of the main actions to be implemented, schedule, milestones and coordination mechanisms proposed for the TC.

5.2 <u>Assessment documents</u> (one per destination) on the main technological elements—structural and operational—that must be considered in the selected destinations to overcome their main challenges. The scope of such documents should be aligned with paragraphs 4.1.2 to 4.1.6 of these terms of reference. The assessments should provide a clear picture of the current technological development of each destination and the existing opportunities to improve it, depending on specific challenges. It will be important to find benchmarks and empirical evidence to help justify such opportunities.

5.3 <u>Action and pre-investment plans for each of the beneficiary destinations</u> that include the technological investments required in each destination, depending on the scope described in sections 4.1.7 and 4.1.8 of these terms of reference.

6. Project Schedule

6.1 The total duration of this contract is estimated to be a maximum of 10 months from the date it is awarded.

7. Requirements and criteria for acceptance of Reports

7.1 The consulting firm must deliver the reports in digital format. The firm will present partial progress and the final result to the Bank's technical team, which will make the corresponding technical comments and request any adjustments to the products delivered which it deems appropriate. These adjustments should be incorporated into the final deliverables. It will be important to have the consensus of the public-private sector to approve the respective assessments and plans in each destination, so the consultants must enable ongoing channels of communication with the relevant sectoral representatives.

8. Other Requirements

8.1 **Minimum qualifications** required on the bidder's team: (i) Project Manager with more than 8 years of experience in coordinating technological projects in the tourism sector, (ii) An expert in science and technology with more than 6 years of experience in technological development projects in the tourism sector; (iii) An expert with more than 6 years of experience in the development of digital technologies in tourism; (iv) An expert with more than 6 years of experience in the development of digital connectivity infrastructure; (v) An expert with more than 6 years of experience in the development of emerging technologies in tourism; (vi) An expert with more than 6 years of experience in destination tourism planning and management; (vii) A sustainability expert with more than 6 years of experience in environmental assessments of tourist destinations; (viii) An expert with more than 6 years of experience in quantitative and qualitative market research; (ix) An expert with more than 6 years of experience in digital marketing and dissemination of content in digital channels; (x) An economist with more than 6 years of experience in financing and evaluation of public-private

projects (with a focus on cost-benefit analysis); (xi) A lawyer with more than 6 years of experience in regulating digital technologies in the LAC region; and (xii) a local expert located in each of the destinations covered by this technical assistance, with at least 6 years of experience in project management. The team must tend, in a timely manner, to the progress of the consultancy in all destinations, at the same time, based on the schedule provided and agreed with the Bank.

9. <u>Monitoring and Reporting</u>

9.1 The work will be carried out in Spanish, English or Portuguese, depending on the language spoken in the selected destinations, from the place of residence of the consulting firm. Videoconferences, audio conferences and other telematic contacts will be maintained with the Bank and representatives of the destinations and other advisory institutions, to align objectives, efforts and expectations.

9.2 Direct supervision of this consultancy will be managed by the Bank's tourism specialists, Adela Moreda (adelam@iadb.org) and Adrián Risso (wistonri@iadb.org), the Bank's Science and Technology specialist, Matteo Grazzi (matteog@iadb.org), as well as the Bank´s IT specialist, Lee Harvey Urquijo (leeu@iadb.org).

10. <u>Payments</u>

10.1 External consultancy under the lump sum modality. The maximum total cost of this consultancy is estimated at USD 75,000 per destination i.e., a minimum of USD 225,000 in the case of working with three destinations and USD 300,000 if working with four.
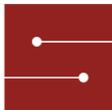
ANNEX - METHODOLOGICAL FRAMEWORK

The awarded consulting companies will carry out audits in the selected destinations, based on the criteria described below, which are partially based on the Smart Tourism Destinations (STD) methodology of the Secretary of State for Tourism in Spain, developed and led by Segittur.

The consultants must analyze the destinations' level of technology readiness in accordance with the range of potential technological solutions as listed below.

Indicative variables for analyzing technological gaps:

Challenges to overcome at the destination
1. Profitability
2. Resilience and security
3. Socio-environmental sustainability
4. Governance

Importance of technology to overcome the challenge	Action
1. Critical	Determine beneficiaries, uses and expected outcomes
2. Relevant	Determine beneficiaries, uses and expected outcomes

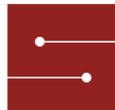| Level of implementation	Action
1. No implementation	Identify types of barriers, prepare a detailed implementation plan
2. There is an implementation plan in progress	Review the project, identify types of barriers and propose improvements, if any
3. There is implementation	Review implementation, identify types of barriers and propose improvements, if applicable
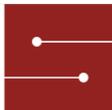
If there is an implementation plan in progress or there is already implementation, analyze the suitability of the current solutions to the problems to be resolved and whether there are more cost-effective alternatives. Likewise, the diagnosis must analyze whether the current infrastructure, organization, human resources, management, maintenance and any other components are adequate for the proper operation of the technological solutions evaluated.
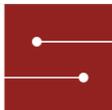
Stakeholders responsible for adopting the technology	Tools
3. Public sector	Investment Training Coordination
4. Private sector	Investment Training Coordination
5. Mixed	Investment Training Coordination

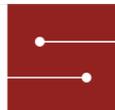### RANGE OF POTENTIAL TECHNOLOGICAL SOLUTIONS TO OVERCOME DIFFERENT TYPES OF CHALLENGES

Requirement	Description
Profitability of destination and tourism companies	
Services provided through web or mobile applications	Analysis of tourism services deployed through web or mobile applications.
Institutional portal for the destination for access to information and data in the public domain: Open Data portal	Existence of an Open Data Platform: public data in a format that can be reused by companies, citizens and tourists.
Tourism business portals	Existence of businesses portals that help tourism MSMEs to join global value chains.
Electronic payment systems	Existence of electronic and online payment options. Use of virtual currencies.

Requirement	Description
Profitability of destination and tourism companies	
Geographic Information Systems (GIS)	Existence of Geographic Information Systems (GIS) that have layers of resources and geolocated tourism services.
Smart Tourist Cards	Existence of smart tourist cards: smart management of tourism services, technological interface (NFC, app, beacons, etc.)
Tourism information and promotion platforms	Existence of tourism information and promotion platforms that enable effective management with the visitor throughout the different phases of the trip (before, during and after): management of big data, chatbot, tourism apps, social networks, e-mail marketing...
Online marketing platforms for tourism products and services	Comprehensive e-commerce and advanced customer management (CRM, ERP) solutions that allow for direct sales and that can be integrated into the online platforms of the destination (web / apps).
Smart tourist signage with sensors	Existence of smart tourist signage with sensors, using interactive panels, QR codes, NFC, beacons, etc.
Solutions based on immersive technologies to improve the tourism narrative	Existence of solutions based on immersive technologies (such as VR, AR, MR).
Smart tourism information offices	Existence of technological solutions aimed at providing information or selling tourism products and services at information offices. Collection of information, integration with other offices. Free WiFi. Marketing of tourist services onsite, etc.
Tourist WiFi networks	Existence of WiFi networks for tourists. Infrastructure and maps of distribution of APs, bandwidth per user, number of concurrent users, captive portals. The design of the networks must prioritize the WiFi connectivity of tourist points of interest. Ideally, they should be public and free.
Destination Information Integration Platforms (smart platforms)	Existence of Destination Information Integration Platforms (smart platforms). Platform for integrating data from the different sensorial verticals displays.
Tourism Intelligence Systems (TIS)	Existence of Tourism Intelligence Systems (TIS) based on data management, to support informed decisions. Use of internal and external sources, traceability of promotion results, etc.

Requirement	Description
Profitability of destination and tourism companies	
Technology-based solutions to improve the accessibility of tourism attractions	Existence of technology-based solutions to improve the accessibility of tourism attractions. Visual display technologies (VR, AR, MR), adapted infrastructure (elevators, escalators), hearing induction loops, smart signage, apps, etc.
Technology-based solutions to improve accessibility in public transport	Existence of solutions based on technologies to improve accessibility in public transport: adapted vehicles (taxis, buses ...), smart canopies (solutions for the visually and hearing impaired ...), accessible apps and websites, etc.
Resilience and security	
Management systems for tourist spaces in the context of COVID	Existence of management systems for tourist spaces in the context of COVID. Contactless payment, capacity management, reservation management, etc.
Natural disaster warning systems or applications	Existence of natural disaster warning systems or applications. Prevention, early detection of fires and floods, earthquakes, subsidence, landslides. Communication channels with citizens and tourists.
Surveillance platforms	Existence of surveillance platforms. Control center, security cameras, secure communication networks, biometrics, etc.
Systems or applications for visitors to report incidents	Existence of systems or applications for visitors to report incidents, enabling the reporting and management of each case by the responsible departments.
Cybersecurity strategies	Existence of cybersecurity strategies. Protocols and tools implemented.
Socio-environmental sustainability	
Technology-based solutions applied to energy efficiency	Existence of technology-based solutions applied to energy efficiency. Public lighting (smart grid, LED lights), heating and cooling of public buildings, etc.
Technology-based solutions for renewable energy generation	Existence of technology-based solutions for the generation of renewable energies. Solar, wind, geothermal energy facilities, etc.
Technology-based solutions for efficient solid waste management	Existence of technology-based solutions for the efficient management of solid waste. Selective collection, smart optimization of collection routes, sensorization of containers, waste processing, special "punto limpio" waste collection centers, etc.

Requirement	Description
Profitability of destination and tourism companies	
Technology-based solutions for water cycle management	Existence of technology-based solutions for water cycle management. Purification, distribution and measures to save drinking water. Wastewater processing and purification for second uses, disposal of spills, etc.
Technology-based solutions for noise pollution management	Existence of technology-based solutions for the management of noise pollution. Deployment of sound level meters, integrated dashboard, noise map, etc.
Technology-based solutions for air quality management	Existence of technology-based solutions for air quality management. Deployment of sensors, integrated dashboard, etc.
Technology-based solutions for public transport management	Existence of technology-based solutions for public transport management. Efficient management of public transport routes, sensor deployment (buses, shelters), use of hybrid and electric propulsion systems, etc.
Technology-based solutions to protect the local economy, zero-kilometer products and circular economy	Existence of technology-based solutions to protect the local economy, zero-kilometer products and circular economy. Marketing platform that encourages visitors to buy local products and services. Special emphasis on the sale of products and services by disadvantaged groups.
Tourism governance	
Digital platforms through which users participate, collaborate, share and exchange content, goods and services	Digital platforms that promote coordination and participation in tourism decision-making, accountability and transparency, through free software, cloud computing solutions, blockchain, etc.