Public-Private Partnerships using Blockchain and AI: The Ultimate Solutions for Tourism Recovery
Tourism Data Driven Solutions (TDDS) is a global Strategic Consulting firm in Tourism, Innovation and Technology with headquarters in Madrid (Spain) and partners in Brussels, Mexico City, Bogotá, Santiago de Chile and Shanghai.

Member of Turisfera (Canarian Tourism Innovation Cluster), of the Network of Smart Tourism Destinations of Spain and Affiliate Member of the World Tourism Organization (UNWTO).

TDDS helps Public and Private agents to make strategic decisions based on Data Analytics and to advance in the processes necessary to achieve their Competitiveness and Sustainability objectives (People, Culture, Environment and Economy).
2019 RESULTADOS DE TURISMO
OTRO AÑO DE CRECIMIENTO

1.5 MILLONES
LLEGADAS INTERNACIONALES DE TURISTAS
+4% CAMBIO
4 MILLIONES
LLEGADAS POR DÍA

AMÉRICAS
EUROPE
ÁFRICA
ORIENTE MEDIO
ASIA Y PACÍFICO

220 MN
742 MN
71 MN
64 MN
364 MN

15% DEL TOTAL
51% DEL TOTAL
5% DEL TOTAL
4% DEL TOTAL
25% DEL TOTAL

ORIENTE MEDIO LIDERÓ CRECIMIENTO EN 2019
CAMBIO POR REGIÓN EN (%)

ORIENTE MEDIO
ASIA Y PACÍFICO
ÁFRICA
MUNDO
EUROPA
AMÉRICAS

7.6
4.6
4.2
3.8
3.7
2.0

PANORAMA 2020

+3% AL +4%
RONÓSTICO GLOBAL OMT PARA LLEGADAS INTERNACIONALES 2020

47%
DE LOS PARTICIPANTES EN EL ÍNDICE DE CONFIANZA OMT CREE QUE 2020 SERÁ MEJOR O MUCHO MEJOR QUE 2019, 43% NO ESPERA CAMBIOS.

ORGANIZACIÓN MUNDIAL DEL TURISMO (OMT), ENERO DE 2020
**2021 INTERNATIONAL TOURIST ARRIVALS**

**WORLD**
- +20% (VS 2020)
- -76% (VS 2019)

**AMERICAS**
- +1.5% (VS 2020)
- -65% (VS 2019)

**AFRICA**
- -34% (VS 2020)
- -77% (VS 2019)

**EUROPE**
- -8% (VS 2020)
- -69% (VS 2019)

**ASIA & THE PACIFIC**
- -75% (VS 2020)
- -95% (VS 2019)

**MIDDLE EAST**
- -39% (VS 2020)
- -82% (VS 2019)

*SOURCE: UNWTO
*PROVISIONAL DATA, Y-O-Y MONTHLY CHANGE BY REGIONS OVER 2019 (DATA AS OF NOVEMBER 2021)*
LEAVE NOTHING BUT YOUR FOOTPRINTS ON THE BEACH
SOCIAL MEDIA USE AROUND THE WORLD

USE OF SOCIAL NETWORKS AND MESSENGER SERVICES, WITH DETAIL FOR MOBILE SOCIAL MEDIA USE

⚠️ SOCIAL MEDIA USER NUMBERS MAY NOT REPRESENT UNIQUE INDIVIDUALS

**TOTAL NUMBER OF ACTIVE SOCIAL MEDIA USERS**

4.55 BILLION

**SOCIAL MEDIA USERS AS A PERCENTAGE OF THE GLOBAL POPULATION**

57.6%

**ANNUAL CHANGE IN THE NUMBER OF GLOBAL SOCIAL MEDIA USERS**

+9.9%

**AVERAGE AMOUNT OF TIME PER DAY SPENT USING SOCIAL MEDIA**

2H 27M

**AVERAGE NUMBER OF PLATFORMS USED EACH MONTH PER INTERNET USER**

6.7

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**Sources:** Kepios [Oct 2021]. Based on data from: Company earnings announcements; platforms' self-service advertising tools; CNNIC, Mediascope. Time spent data from GWI [Q2 2023]. See GWI.com for more details. *Advisory: Social media users may not represent unique individuals, and may exceed internet user numbers in some countries. **Comparability Advisory:** Base changes and historical revisions. Data may not correlate with figures published in previous reports.
Knowledge
Better Experiences
Competitiveness
Improving the Resident's Quality of Life
New Business Opportunities
Tourism Intelligence System

Structured Data
- Government
- Analysts
- Business
- Hotels
- Restaurants
- Others

Non-Structured Data

DATA ANALYTICS
- Number of Tourist & Nationality
- Tourist Mobility
- Expenditure
- Lodgement Price & Occupancy
- Air Connectivity

Impact
- Socio-cultural Impact
- Economic Impact
- Environmental Impact

Tools
- Sentiment Analysis
- Ticketing Events
- Events
- Web Tracking
- Apps Tracking
- Sensors
- Telecom Networks
- New Tech

Governance
The objectives of Formentera 2020 were:

- To have a tourism observation model that would allow the Insular to make decisions based on the analyses generated by the tourism intelligence department (Data on visitor profile: average stay, etc.; Actual expenditure generated in the segmented by: nationality, areas, months and business/economic sectors).

- Evolve the current Tourism Observatory towards the model proposed in the principles of Smart Destinations.

- To have data on the Human Pressure Index.
Tequila, Guadalajara, Jalisco, México

- To be a Smart Tourism Destination (Strategic Plan and Master
- To have a Tourism Intelligence System (SIT) for the city with types of data to enable informed decision-making, connected the SIT.
- Land the Plan with concrete actions and concrete indicators of implementation, mainly in terms of carrying capacity and flow management.
Buenos Aires, Argentina

- To be a Smart Tourism Destination (Strategic Plan and Master Plan)
- To have a Tourism Intelligence System (SIT) for the city with types of data to enable informed decision-making, connected to the SIT.
- Plan with very complete indicators. Sensorisation of points in city, recording of spending by credit cards, mobility, etc.
The Smart Destination Self-diagnosis is an online and fillable tool developed by TDDS, which allows to have in a days a very accurate picture of the situation of the in relation to the five pillars of the Smart Tourism Governance, Sustainability (environmental, socio-cultural economic), Accessibility, Innovation and Technology.

The Self-diagnosis is based on the DTI methodology developed by Segittur, the UNE 178501 and 178502 and the experience in implementing Smart Destinations of TDDS in recent years.

Deploying this questionnaire in a destination, region or country allows to know and compare its status as a smart destination and to programme public policies that help its development.

AI (machine/Deep learning) helps to give a first report and recommendations to destinations.
Intelligent learning tourism platform for Customer Loyalty, Activity Recommendation and Tourist Behavioural Patterns
What is Cleverus?

Cleverus is a smart platform based on a distributed registration architecture (blockchain + artificial intelligence) at the service of the tourism sector.

Cleverus will provide new capabilities for customer loyalty through the recommendation and development of customized services, products and tourism packages thanks to data analysis using Machine Learning and Deep learning models.

Cleverus uses new techniques based on Deep Reinforcement Learning and hybrid neuro-symbolic algorithms to improve customer loyalty programs through the recommendation of services, products and tailor-made tourism packages.
The Innovation

It is a software designed for tourist destinations. Cleverus creates an ecosystem of public and private entities located in the same destination. It offers services and products where the user can obtain points and redeem them with a single number (QR code) within the destination's ecosystem.

The platform uses Smart Contracts in the loyalty process so that customers automatically receive the agreed bonuses according to the services purchased in order to obtain discounts, attendance at private events, exclusive promotions or other premium products thanks to customer loyalty.

The platform is based on a modular architecture designed under the Distributed Ledger Technology paradigm. The architecture will integrate various modules for information capture, communication between modules, data analysis and information representation.
“Distributed Registration and Deep Neuroevolution Learning technologies for the creation of the Single Digital Multimodal Transport Ticket at Global level.
OnePass will be the **first multimodal e-ticket**, allowing medium and long-haul travelers to move around the world in complete safety **with a single QR code**.

The customer will have the choice to have a **fully insured ticket**.

The combination of **Blockchain** and **Artificial Intelligence** will make possible to create an interconnected community with all the players involved in the travel chain.
The new Concept of Health Card
Problem: Medical Information Management when Travelling

Patients do not own their medical information.
- Medical centers and social security are the ones who control our information
- If patients were in control of our medical information, we could put it to better use.

Accessing your medical information is very tedious.
- The wide variety of different entities that hold the information makes it difficult to have immediate access to our medical data.
- The means established for accessing it are neither convenient nor efficient.

Medical information is not stored in a secure manner
- The government does not make use of state-of-the-art technology.
- Bugs and inefficiencies are generated that create risks in the systems.

It is crucial to be able to translate health information into another language in case of emergency.
- In case of an emergency abroad it is necessary to be able to translate your information (pathologies, allergies, diseases, etc.) in order to be able to communicate your health condition and assess your options, allergies, illnesses, etc.) to be able to communicate your health status and to assess options.
- Overseas it can take days to receive your health information.
hi+Card Travel

Securely store, organize and access your information when and where you want it.

• Store and organize all your medical information that you want to have at hand in a totally secure way (diseases, allergies, test results, treatments, vaccinations, etc.).

• Wallet: Digitize all your cards and certificates (insurance and health cards, cards, medical certificates, etc.).

• Instantly translates your medical information into the language of the target country or territory. Currently available in 7 languages: English, Spanish, French, German, Portuguese, Italian and Russian.
In addition, the user can create multiple profiles to carry all the medical information of his family (children, parents, partners, etc.) on his cell phone.

It has been a recurring request from users when traveling with families with young children with a chronic illness, separated parents to carry on their mobile the medical profile of their children or in the case of traveling with elderly parents or people with disabilities, among others.
hi+Card is ready to support the European Covid Certificate once any country in the world is interested in using it as its own application. Or include your own QR code.

hi+Card is free for governments in its function of Covid passport.

Currently in negotiation and co-creation with different countries and territories!
hi+Card was presented on May 2020 (via zoom) to an audience of 9,000 people, including more than 160 tourism ministers.

The Healing Solutions Tourism Challenge event was organized by the World Tourism Organization and the World Health Organization (United Nations).
• In July 2020 the Government of the Canary Islands and the UNWTO organized a trip of more than 100 journalists from all over the world to showcase the Canary Islands as a safe destination. The app used was hi+Card.

• Travelers underwent a PCR test by Quiron LAB no later than 72 hours before their flight departure (following WHO guidelines). Quiron LAB uploaded the test results to hi+Card, upon written request from the travelers.

• hi+Card generated a QR that could be easily consulted when boarding the plane, arriving at the hotel or boarding a ferry.

• The document was stored securely and immutably in the traveler's profile for 72 hours, after which the QR was no longer valid, turning from green to gray.
The new Concept of Health Card
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gracias