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DATA INFRASTRUCTURES FOR SMART TOURISM DESTINATIONS

SEGITTUR 03/07/2024

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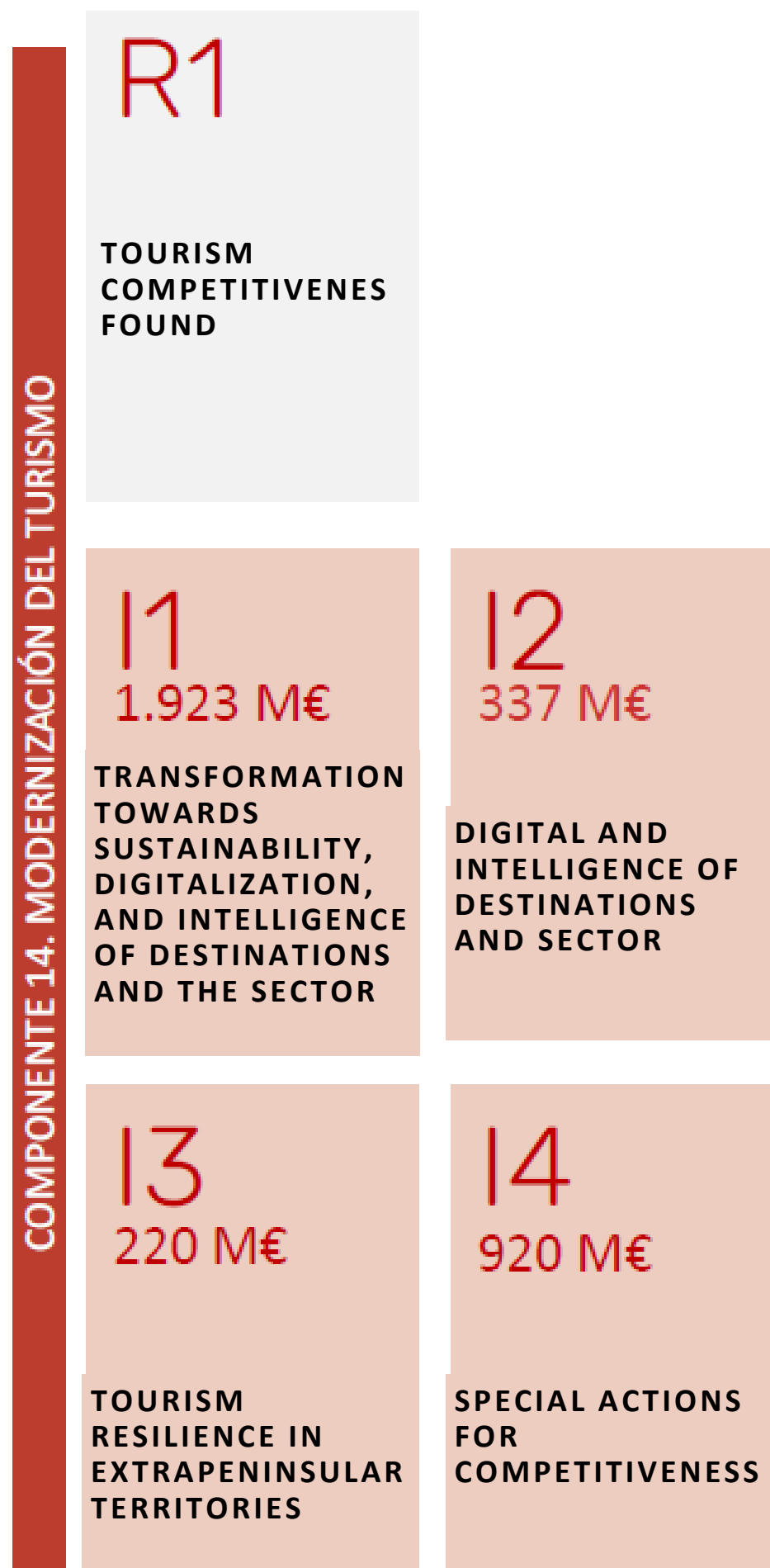turismo e innovación

SMART DESTINATION

CONTEXT
DEFINITION
HOLISTIC VISION

STD CALL

INTELLIGENT
DESTINATION
PLATFORM: PUBLIC
PROCUREMENT
SUPPORT ICT
INFRASTRUCTURES

01 PLAN FOR THE MODERNIZATION AND COMPETITIVENESS OF THE TOURISM SECTOR

R1

TOURISM COMPETITIVENES FOUND

COMPONENTE 14. MODERNIZACIÓN DEL TURISMO

I1
1.923 M€

TRANSFORMATION TOWARDS SUSTAINABILITY, DIGITALIZATION, AND INTELLIGENCE OF DESTINATIONS AND THE SECTOR

I2
337 M€

DIGITAL AND INTELLIGENCE OF DESTINATIONS AND SECTOR

I3
220 M€

TOURISM RESILIENCE IN EXTRAPENINSULAR TERRITORIES

I4
920 M€

SPECIAL ACTIONS FOR COMPETITIVENESS

Sub-measure 1. Digital Transformation Plan for Tourist Destinations.

1. Intelligent Destination Platform and promotion and consolidation DTI Network.

2. Tourism Intelligence System for administrations and tourism sector (SIT)

Sub-measure 2. Digital Transformation Plan for Companies in the tourism value chain through Artificial Intelligence and other enabling technologies.

1. Creation of an "industrial data space" for tourism.

2. Innovation based on enabling technologies for management processes

of the tourism sector. Public-private collaborative environment in the style of "app store".

3. Program of "last mile" calls aimed at companies, preferably SMEs, and associations or associative entities.

01 | PLAN FOR THE MODERNIZATION AND COMPETITIVENESS OF THE TOURISM SECTOR

The Plan for the modernisation and competitiveness of the tourism sector will make it possible to tackle major challenges for Spanish tourism over the coming years:

- The **destination-travelers-companies interaction**. Omnichannel and personalized communication with travelers to capture them, make their stay profitable and improve their satisfaction.

- The **technological and management capabilities of DTIs** to integrate tourism management into local management, anticipating and managing negative impacts and increasing the profitability of companies in the business sector and, by extension, improving the quality of jobs and generating greater social prosperity.

- The **data economy in tourism**, increasing the capacities for generating and sharing data between companies and public administrations at the local level; All this reaching an aggregation and intelligence of country data.

The objective of the **intelligent destination platform** that provides interoperability to the offer of public and private services to tourists. A platform that allows all agents to interact with tourists in a digital, intelligent and scalable way.

01 What is meant by an Intelligent Destination Platform (IDP)?

The **Smart Destinations Platform** integrates **shared services** and incorporates a collection of **digital solutions** that solve the main public problems and market failures – in the digital and physical planes – throughout the **tourist's travel cycle**.

OBJECTIVE

Accelerate digital transformation through the relationship between the agents of the tourism ecosystem (tourist destinations, the business sector and the connected tourist) in favor of increasingly hyperconnected tourists.

NEEDS COVERED BY THE PLATFORM

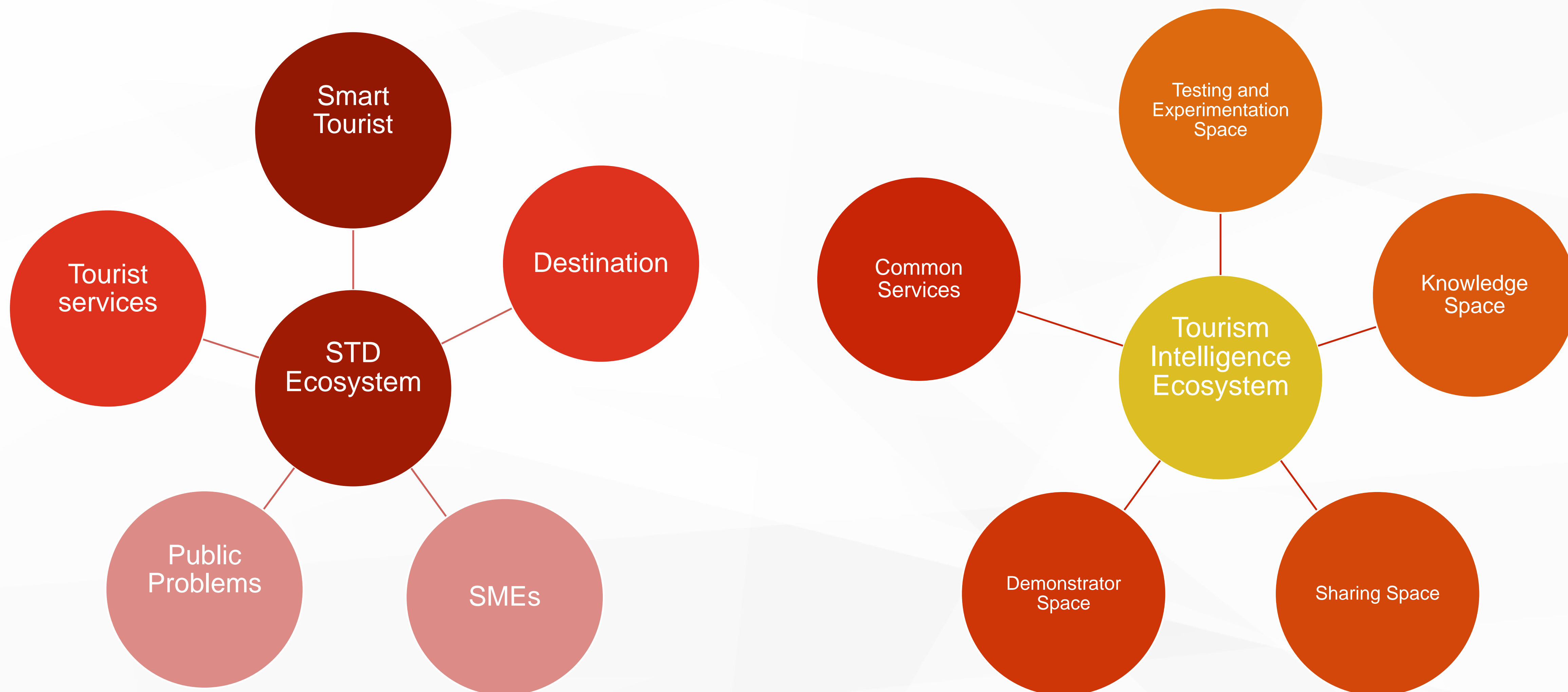Connected tourist: needs personalized services and interaction at all stages of the travel cycle.

Tourism company: you need more visibility and more business. It is key to support it for the definition of its tourist value in digital format.
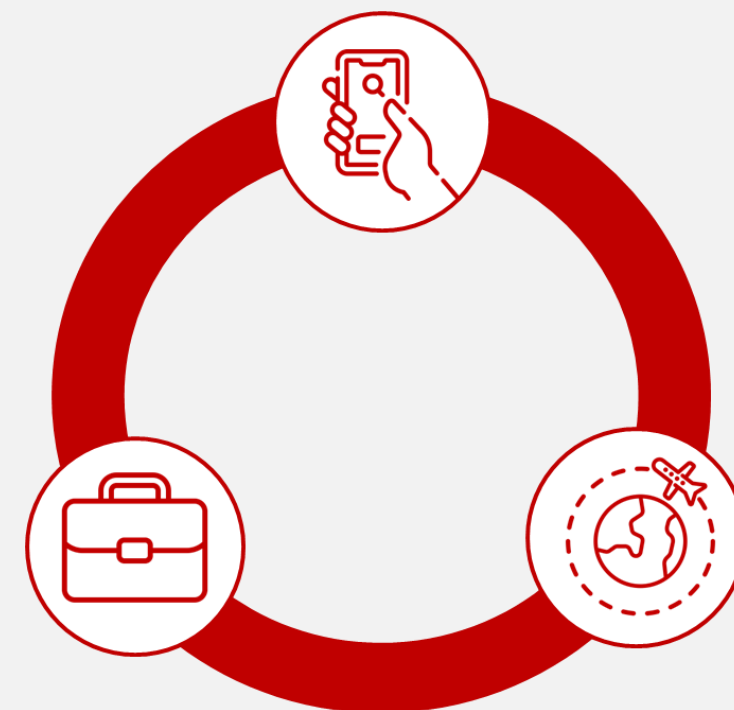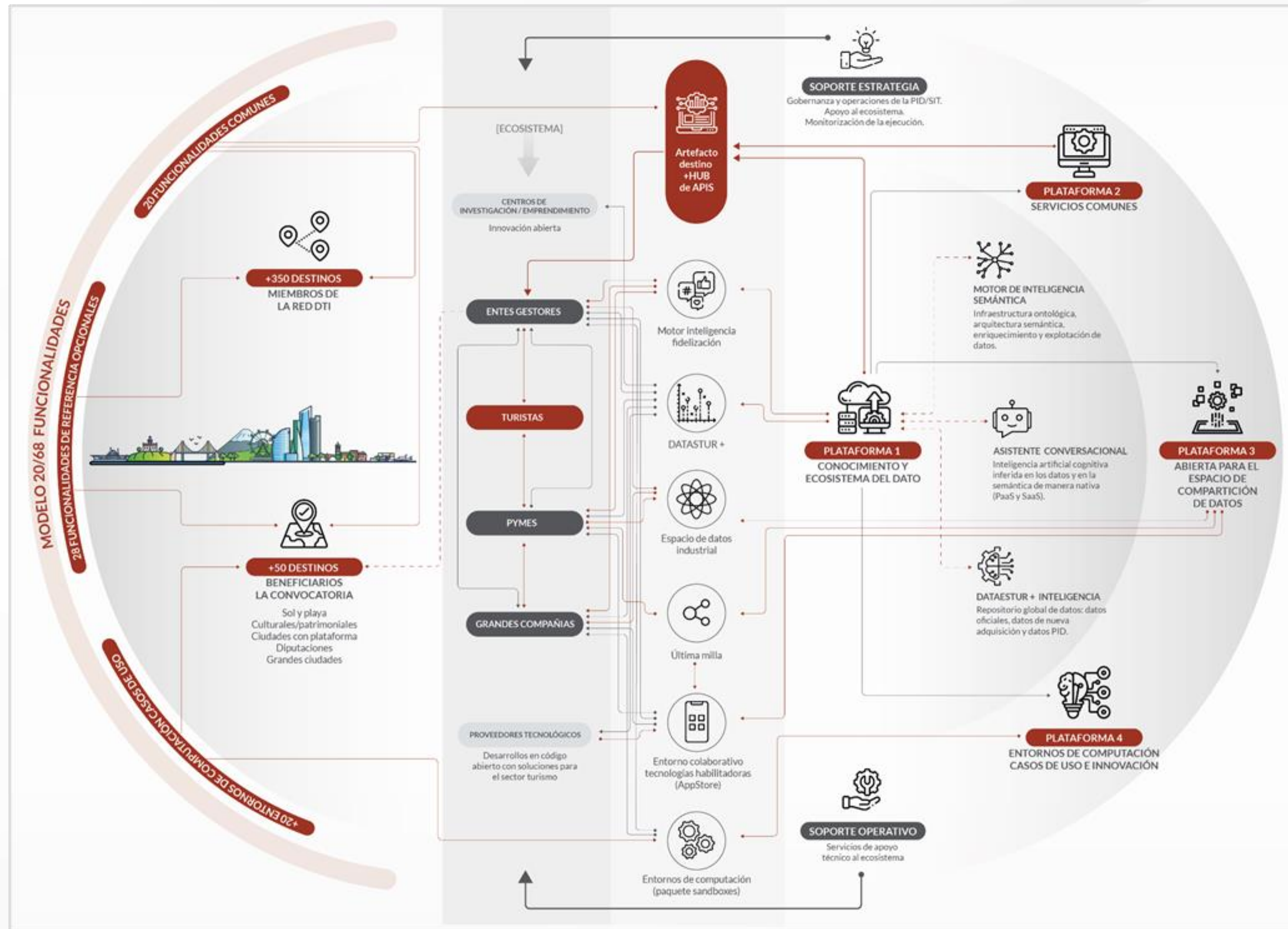
Tourist destination (Admin. Public): needs instruments to manage the destination's tourism brand and refine its positioning.

Smart Tourism Destination (STD) Ecosystem

The deployment of the IDP **fosters public-private ecosystems** that integrate and connect all actors (institutional, sectoral, technological, social) **to generate, operate, integrate, aggregate and exploit information and resources** that allow the modernization of the Spanish tourism industry.
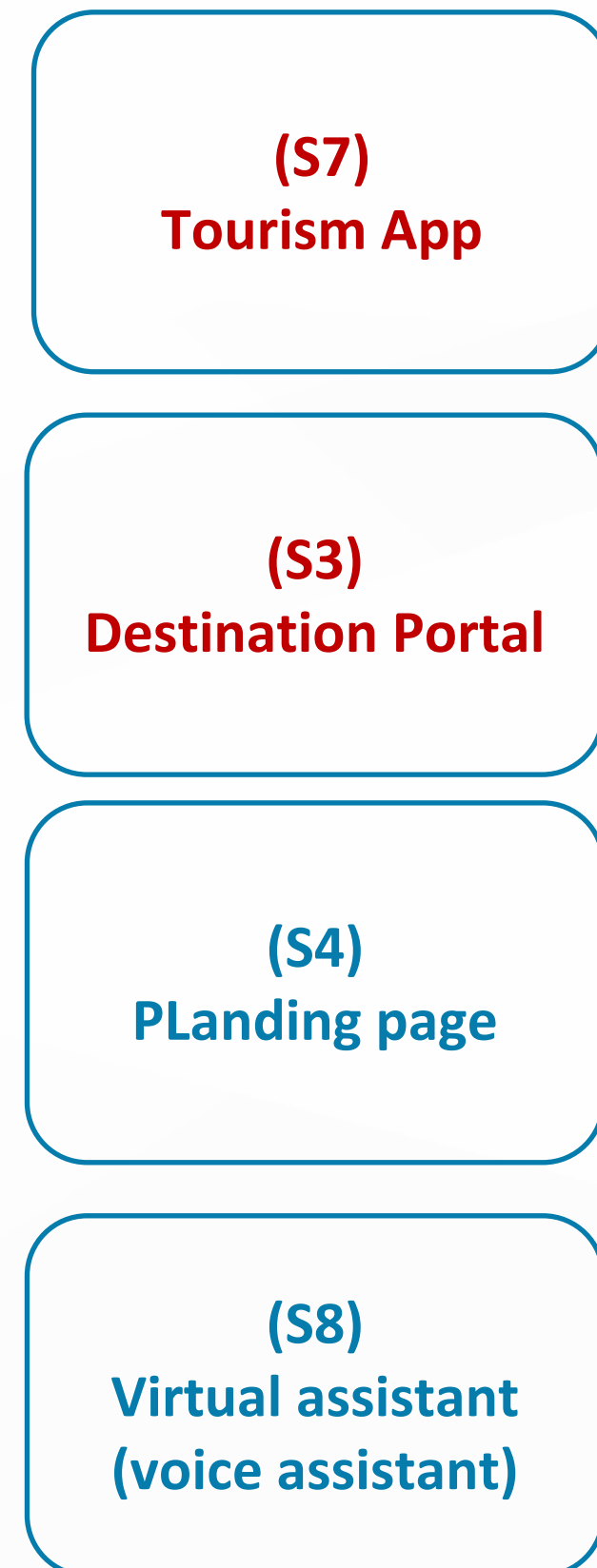
02

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https://www.segittur.es/transformacion-digital/proyectos-transformacion-digital/plataforma-inteligente-de-destinos/

Diagram Common Services by actors

01

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TOURISTS

(S7)
Tourism App

(S3)
Destination Portal

(S4)
PLanding page

(S8)
Virtual assistant (voice assistant)

DESTINATIONS

(S9)
DTI Destination Management Module

(S6)
Online utility sales module

(S12)
Self-diagnosis application

(S15)
Destination survey module

(S17)
Citizen perception analysis module

(S16)
Online reputation module

(S18)
Data exploitation, forecasting and simulation module

(S14)
SIT Module Dataestur destination

(S19)
DTI Performance Dashboard

ENTERPRISES

(S10)
App participation of tourism companies

(S1)
Professional Portal

(S13)
SME Digital Maturity Index

(S20)
Destination Data Dashboard for Business

(S5) Customer relationship management (CRM) and loyalty system

(S2) Semantic Content Management System (CMS)

(S11) Location intelligence module

SECTORAL DATA SPACE

Sharing Space

Use Cases

Support ICT infrastructure

3

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Sharing space in the Tourism Intelligence Ecosystem

A tourism intelligence ecosystem (EcInTur) is an ecosystem where the **voluntary sharing** of the data of its participants materializes within an environment of **sovereignty, trust and security**, established through integrated governance and technical mechanisms.
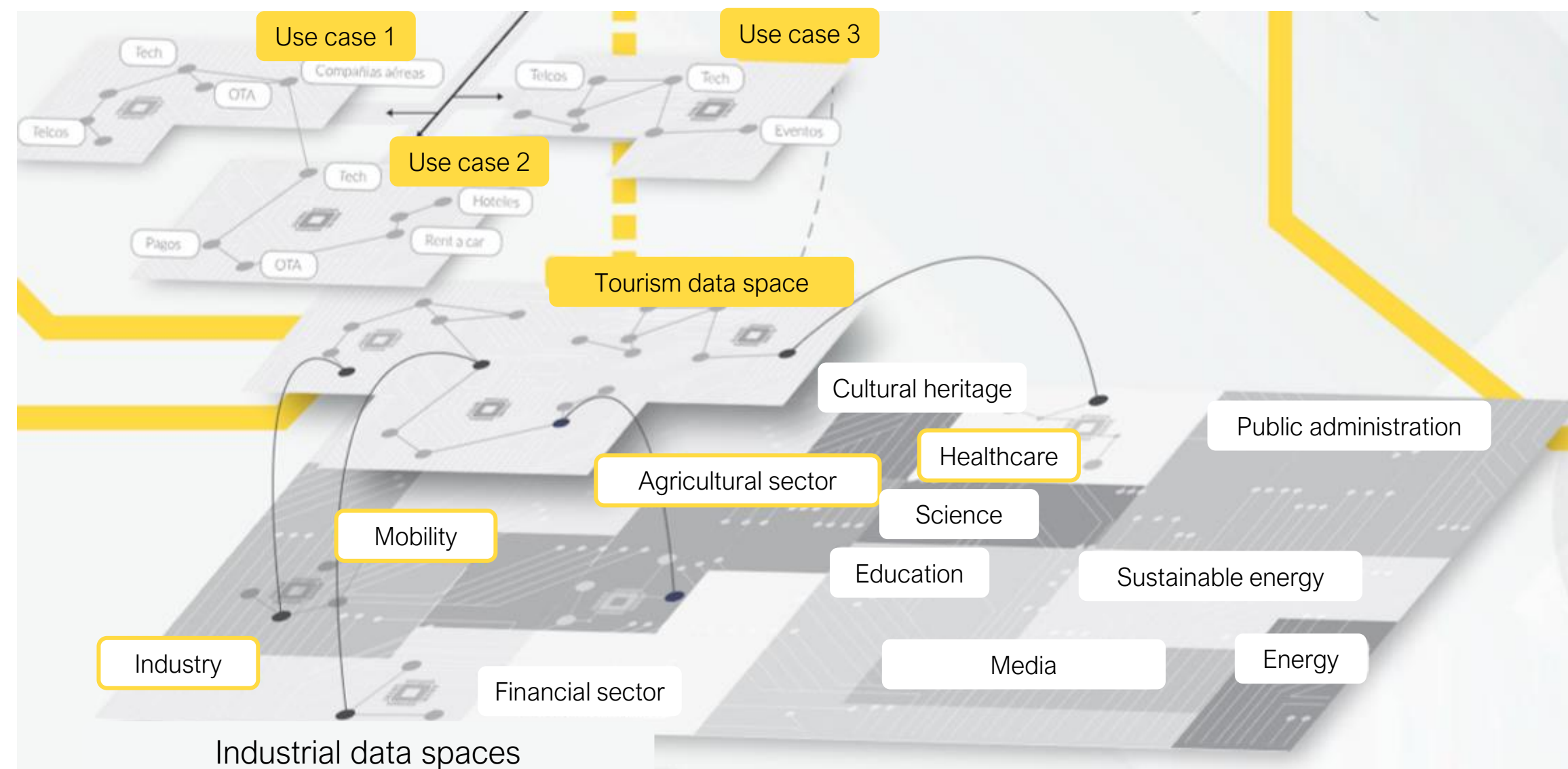
The EcInTur will facilitate **finding, accessing and using the data**, sufficiently describing the **datasets** involved and their **restrictions on use, data structures, vocabularies and taxonomies, as well as the technical means of access.**

The concept of **sovereignty** is key, understood as the ability of a participant to maintain control over their own data, expressing the terms and conditions that will govern their permitted uses.

The tourism intelligence ecosystem goes beyond the bilateral exchange of information, constituting in its most advanced version authentic ecosystems from which to put the value of the data with sovereignty, trust and security.

03 Smart Destination Platform
DATA USE CASES

A total of **23 use cases** have been identified for the definition and incorporation into the Smart Destination Platform in relation to the tourist's travel cycle.

Common elements to use cases

Identification of the problem, challenge and/or opportunity for improvement, both public and private, to be solved.

Associated utility data. Determining, in public or private sources, the useful data sets to manage the problem, challenge or opportunity, evaluating, among other parameters, availability, stability, granularity, extraction, loading and operating costs, etc.
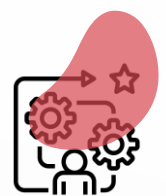
Intervention capacities. Defining the problem and its data model, defining what intervention capacities -marketing, interaction and data- will be necessary to deploy the public (managing body) and private (SMEs, etc.) actions that the problem demands.

Infrastructures or technological solutions. Identifying solutions that the destination must deploy, to solve the problem, supporting the management generating the necessary data flow. The solutions for each use case will be integrated into the PID for replication to the targets.

Semantics and interoperability. Studies and pilots on use cases will contribute to the creation of a repository of necessary ontologies by developing a framework to interoperability, in particular around a list of key entities and first-level specifications of data processes.

Smart Destination Platform
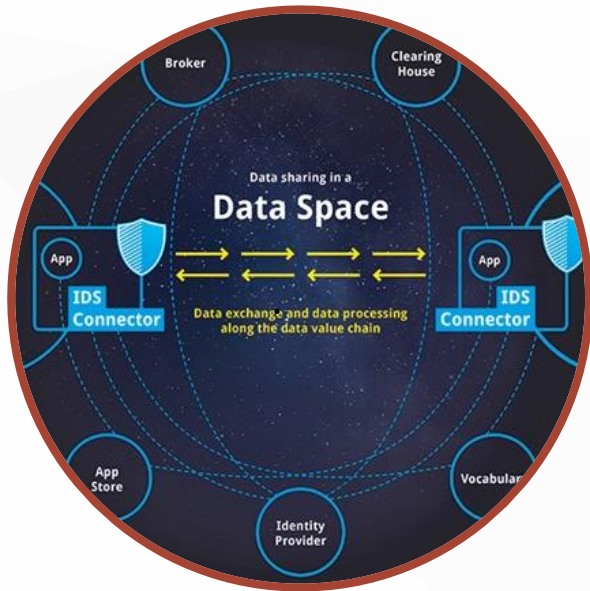## DATA INFRASTRUCTURE FOR SMART DESTINATION

Objectives

| Improved data collection and commissioning | Encourage data sharing | Support for sponsored use cases | Open innovation support R+D |

1. Knowledge platform and data ecosystem

Data + **Semantics** = **Knowledge**

2. Platform for the space of sharing tourism data Spain

3. Segittur Sandbox innovation platform for use case development

4. Sandbox innovation platform agreed with external organizations

Platforms

Global repository official data, acquisition data, PID data	Models and ontological institutionalization of the Tourism domain	Cognitive AI inferred from data and semantics natively
Evolution of the current DATAESTUR platform	Ontological model and transversal application	AI in the data lifecycle, advanced analytics services

- Open to all: suppliers, consumers and rooms. Technological
- Creation of connector package homologable with GAIA-X and IDSA.
- Platform and connectors hosted by Segittur as a meeting point of the sector (data marketplace.

- Segittur environment for experimentation, development and production of Use Case solutions for SMEs and tourist destinations.
- Publication of apps and services generated in the Segittur appStore
- Creation of private ring in Shared space data Tourism Spain

- Concerted access to Sandbox platform and global data repository. Storage, development and computing service to extend the capacity for innovation with org. External
- Publication of apps and services generated in the Segittur appStore

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Mobilisation of the Spanish tourism system   - National awareness campaigns - permanent online school training competence data - training plan throughout the value chain - Tourism laboratories

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Unified cloud infrastructure   - Security – Identity – Privacy – ENS regulation – Data sovereignty – Elasticity processing and storage – Sustainability –

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