Smart Tourism Destinations

19th September 2022

Launch Meet up Event

SMART TOURISM DESTINATIONS

intellera consulting

pwc

carsa

Universitas Malacitana

European Commission

Welcome and introduction

Giovanna Galasso

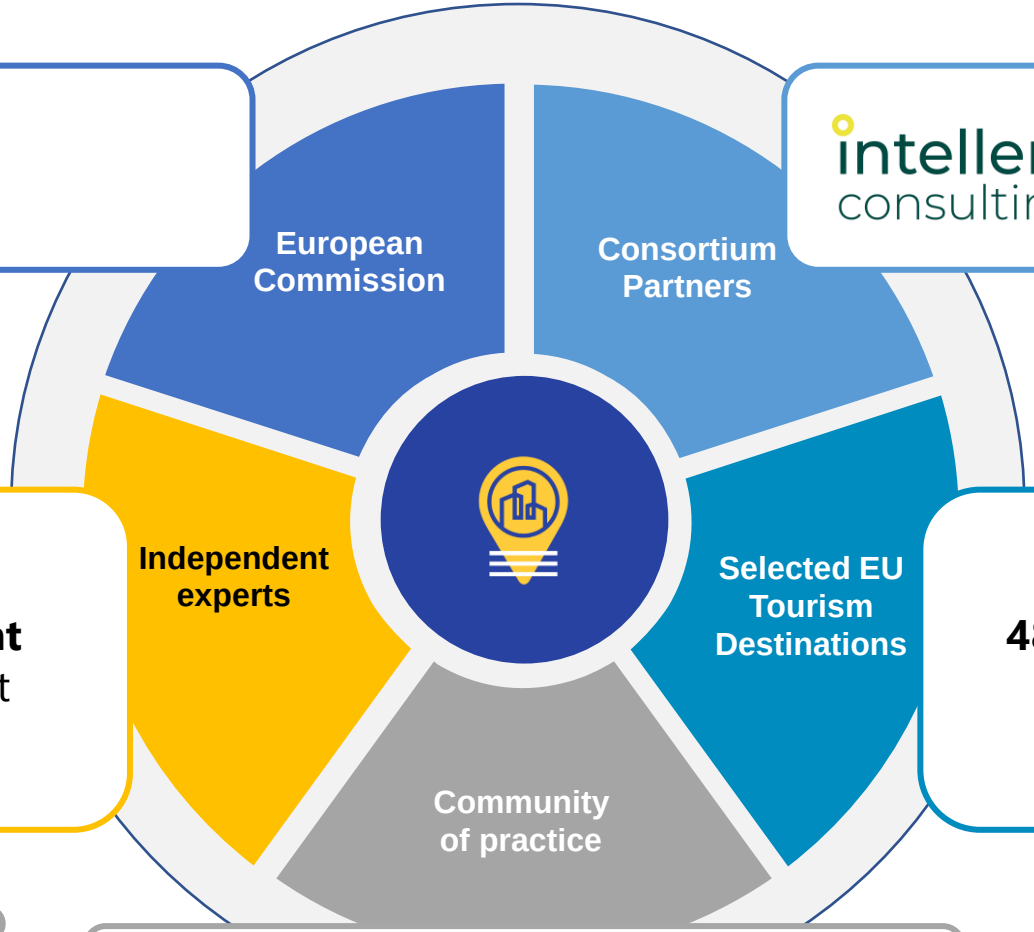
Project Leader
Intellera Consulting, Associate Partner

SMART TOURISM DESTINATIONS

Smart Tourism Destinations – Who is here today

EU Commission

10 Smart Tourism independent experts, supporting the project



48 selected Tourism destinations, participating in the project

Online: EU Tourism Stakeholders

Agenda – 19 September 2022

14:30 – 14:40	**Welcome address & Agenda presentation**	*Giovanna Galasso, Intellera Consulting, Project Leader and Event Moderator*
14:40 – 15:00	**The Smart Tourism Destinations Initiative**	*Marie-Hélène Pradines, Head of Unit, DG GROW* *Misa Labarile, Policy Officer, DG GROW*
15:00 – 15:20	**Digital Europe Programme for Smart Cities and Communities**	*Javier Orozco-Messana, Project Officer, DG CNECT*
15:20 – 15:40	**Intelligent Cities Challenge**	*Dana Eleftheriadou, Team Leader - Proximity and Cities, DG GROW* *Natalia Gkiaouri, Policy Assistant, DG GROW*
15:40 – 16:10	**Final Results of the study 'Mastering data for tourism by EU destinations**	*Carlo Montino, Intellera Consulting* *Alfonso Cerezo Medina, UMA*
16:10 – 16:30	*Coffee Break*	
16:30 – 16:45	**Overview of Activities of the Destinations' Journey and Community of Practice**	*Costanza Bersani, Intellera Consulting* *Silvia de la Maza, CARSA*
16:45 – 17:45	**Panel of experts. Best practices and tips in smart data management in Tourism**	*Moderator: Tomáš Gajdošik* *Panelists: Mirko Lalli, Dagmar Lund-Durlacher, Dolores Ordóñez*
17:45 – 18:00	**Q&A Session and Closing Remarks**	*Giovanna Galasso, Intellera Consulting, Project Leader and Event Moderator*

What's our objective today?

This event marks **the beginning of the capacity building journey** for the selected Smart Tourism Destinations, but it is also a chance to **start disseminating knowledge to the wider EU tourism community**. To do so, today's event is pursuing the following goals:

Sustain and foster the development of a **data-driven community** active in the Tourism sector in the European Union

Raise awareness and share the **latest policies and initiatives of the European Commission** in the field of Smart Tourism

Present to you the **first results coming from our project** and **kick-off our upcoming activities**, including opportunities for external stakeholders

The Smart Tourism Destinations project

Promoted by the **European Commission - DG GROW**, the Smart Tourism Destinations Project is managed by **Intellera Consulting**, **CARSA**, the **University of Malaga**, and **PwC EU Services**.

The project aims to **support EU destinations implementing data-driven approaches to make tourism more sustainable and accessible**.

The project can also count on the support of **10 independent experts** including private sectors practitioners and academic researchers.

SELECTED DESTINATIONS

48 Destinations have been selected to be part of the Project, having the possibility to **learn from experts and peers** and work on **their Smart Tourism Destination's Roadmap.**

Smart Tourism Destinations – Objectives

The key objectives of the Smart Tourism Destinations project

Strengthen collaboration and peer learning between EU tourism destinations

Develop a knowledge base and provide **capacity building activities** to support the adoption of Smart Tourism solutions and approaches

Disseminate lessons learnt and good practices, raise awareness on Smart Tourism and develop **final recommendations**

To achieve these goals, **we will work together** with the independent experts, the selected destinations, and involve the wider community of stakeholders in a series of **capacity building and knowledge sharing activities**.

Key tools developed by the project are already available on our project website!

Key tools

Study "Mastering data for tourism by EU destinations"

Knowledge base on how data is being used by destinations and other actors in the tourism industry

Available on our website

EU Guide on data for tourism destinations

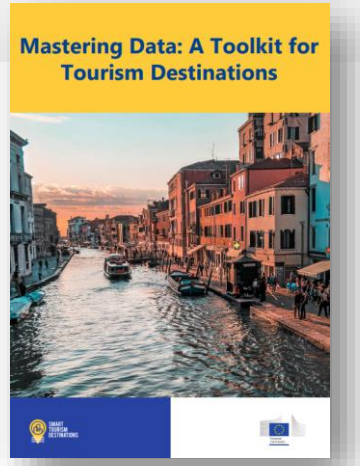
A concise guide to disseminate the basic concepts on data management for smart tourism

Available on our website

Mastering Data: A Toolkit for Tourism Destinations

A toolkit for mastering data, describing how to improve destination's smart tourism capacities

Soon available on our website



Smart Tourism: The European Commission policies and initiatives

European Commission

SMART TOURISM DESTINATIONS

Our next speakers

Marie-Hélène Pradines

Head of Unit, Tourism & Textiles, DG GROW-G.1

Misa Labarile

Policy Officer, Tourism & Textiles, DG GROW-G.1.

Tourism policy @EU level – For the Smart Tourism Destinations Pilot project

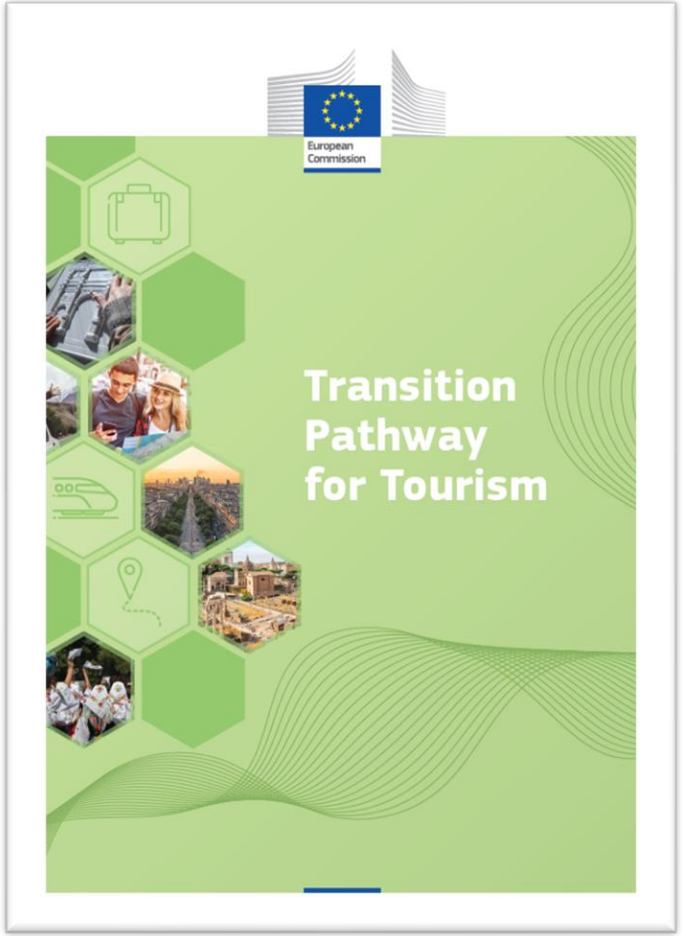
Tourism policy @EU level

For the Smart Tourism Destinations pilot project

Misa Labarile, GROW G1, Tourism

Transition pathway for tourism, Feb 2022

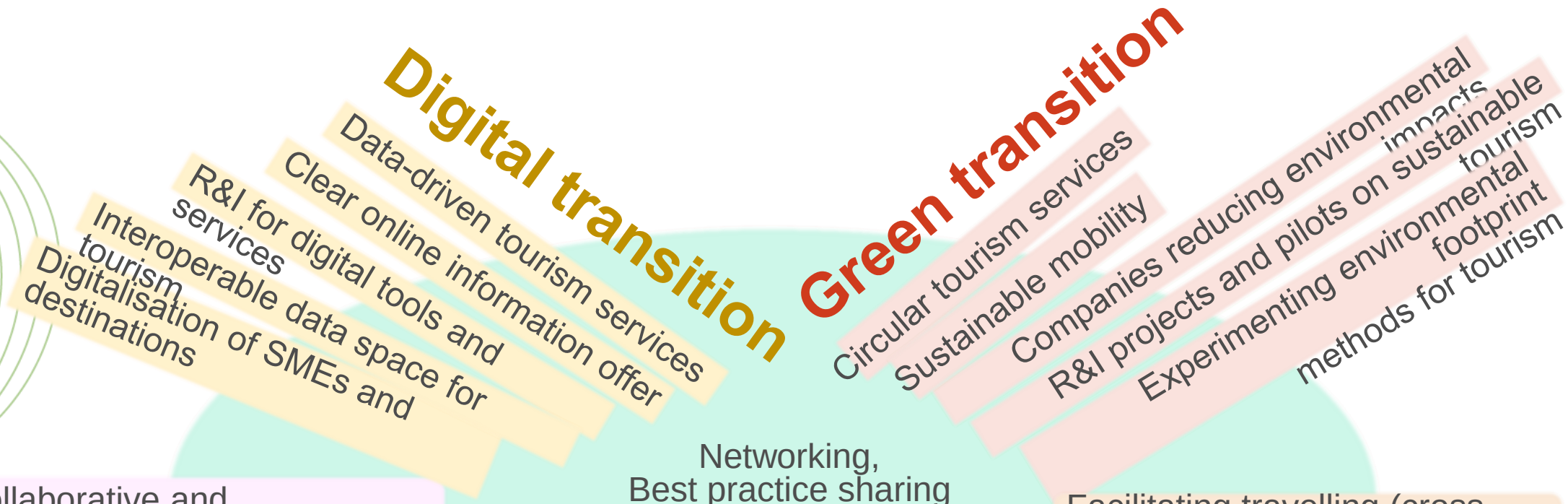
- Policy and governance
- Green transition
- Digital transition
- Resilience
- Funding
- Monitoring and co-implementation



Transition Pathway report at EU Publications Office portal: https://op.europa.eu/s/vNbN

European Commission

70 actions grouped under key topic areas



Policy & governance **Stakeholder support** **Skills & resilience**

Tell us what you do

Pledges (europa.eu)

European Commission

Working for a data-driven sector

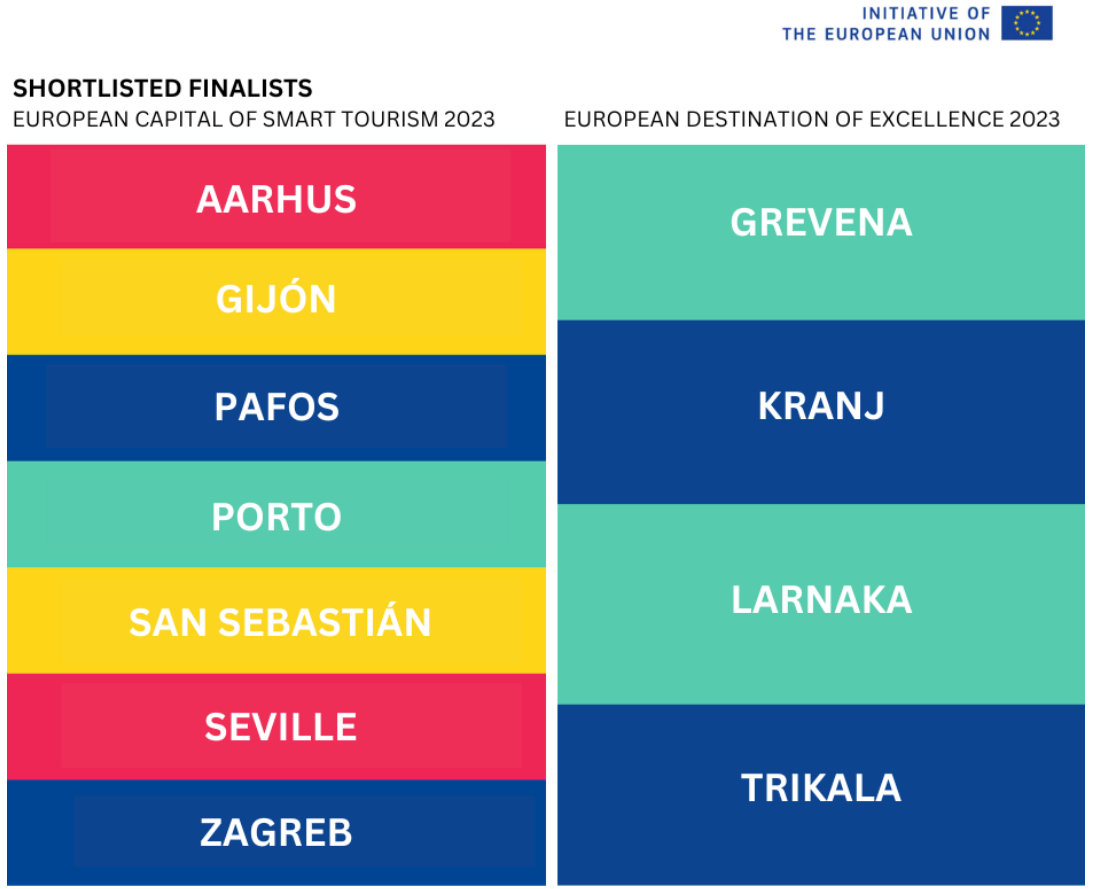
- A Code of Conduct for contractual agreements in data sharing in tourism
- Preparatory work to develop a tourism data space, funded under the Digital Europe Programme
- A Study, a EU Guide, and a Toolkit for destinations to develop a smart data strategy

And a Pact for Skills to support upskilling in tourism

European Commission

Competitions for destinations

- EU Capital of Smart Tourism – currently selecting our 2023 winners
- European Destinations of Excellence Awards (EDEN) – currently selecting our 2023 winner



European Commission

Funding opportunities

- An online Guide for Funding in the tourism sector: https://ec.europa.eu/growth/sectors/tourism/funding-guide_en
- Opportunities for support to SMEs under COSME and the Single Market Programme
  - 2022
  - 2023 (April-June)
- National support under National recovery and resilience plans (15 MS)
- Support mechanisms for SMEs: EEN, European Cluster Collaboration platform, Digital Innovation Hubs, EIC accelerator, YourEurope portal

Thank you

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European Commission

Our next speaker

Javier Orozco-Messana

Project Officer, Technologies for Smart Communities, DG CNECT-C.3

Digital Europe Programme for Smart Cities and Communities

Digital Europe Program
for Smart Cities and Communities

Smart Tourism Destinations
Launch event

Javier Orozco, DG CNECT
Unit C3 Technologies for smart communities

19th September 2022

Outreach

- Political context
- Living-in.EU movement
- Data Space for Smart Cities and Communities
- Local Data platforms
- Local Digital Twins

European Commission

CONNECT UNIVERSITY

THE DATA ACT
Unlocking data value for the economy and society

"I want European businesses and our many SMEs to access high quality data and create value for Europeans – including by developing Artificial Intelligence applications."

Thierry Breton,
Commissioner for the Internal Market

European Commission

Towards climate-neutral and smart communities

- EU Green Deal & Europe Fit for the Digital Age: '*Twin green and digital transitions*' ; need to tackle the twin challenge in a holistic and systemic way

- Smart cities and communities use digital technologies to reduce resource input and improve the quality of life for their citizens (- > '*twin digital and green' transition*)

- European Digital Strategy:
  - Shaping Europe's Digital Strategy
  - Excellence and Trust in Artificial Intelligence
  - European Data Strategy

- **2030 Digital Compass: the European way for the Digital Decade**

- EU Recovery Plan:
  - At least 20% of the funds under the Recovery and Resilience Facility will be made available for the digital transition (and 30% for green)

Smart cities and communities - > 'twin digital and green' transition

State of play

- Many initiatives, pilot projects, innovative solutions but often confined to a specific vertical domain of the city (e.g. energy management or mobility)
- Digital solutions often stay fragmented, which limits the possibility to scale, accelerate take-up and deliver better outcomes & create a viable smart city market in Europe
- Despite advances in data capture and management, just 12% of city data is used for policy making

- Political context
- Living-in.EU movement
- Data Space for Smart Cities and Communities
- Local Data platforms
- Local Digital Twins

LIVING-IN.EU

The European way of digital transformation in cities and communities

Over 100 signatures so far…
From Mayors, Regional and national Ministers

https://www.living-in.eu/

DOWNLOAD THE DECLARATION

SIGN THE DECLARATION

SUPPORT THE DECLARATION

Driven by shared principles and values

Principles:

- Citizen-centric design
- A city-led approach at EU level
- Technologies as key enablers
- Socially responsible access, use, sharing and management of data
- City as an open, living space
- Interoperable urban platforms with open standards, open/public APIs and shared data models

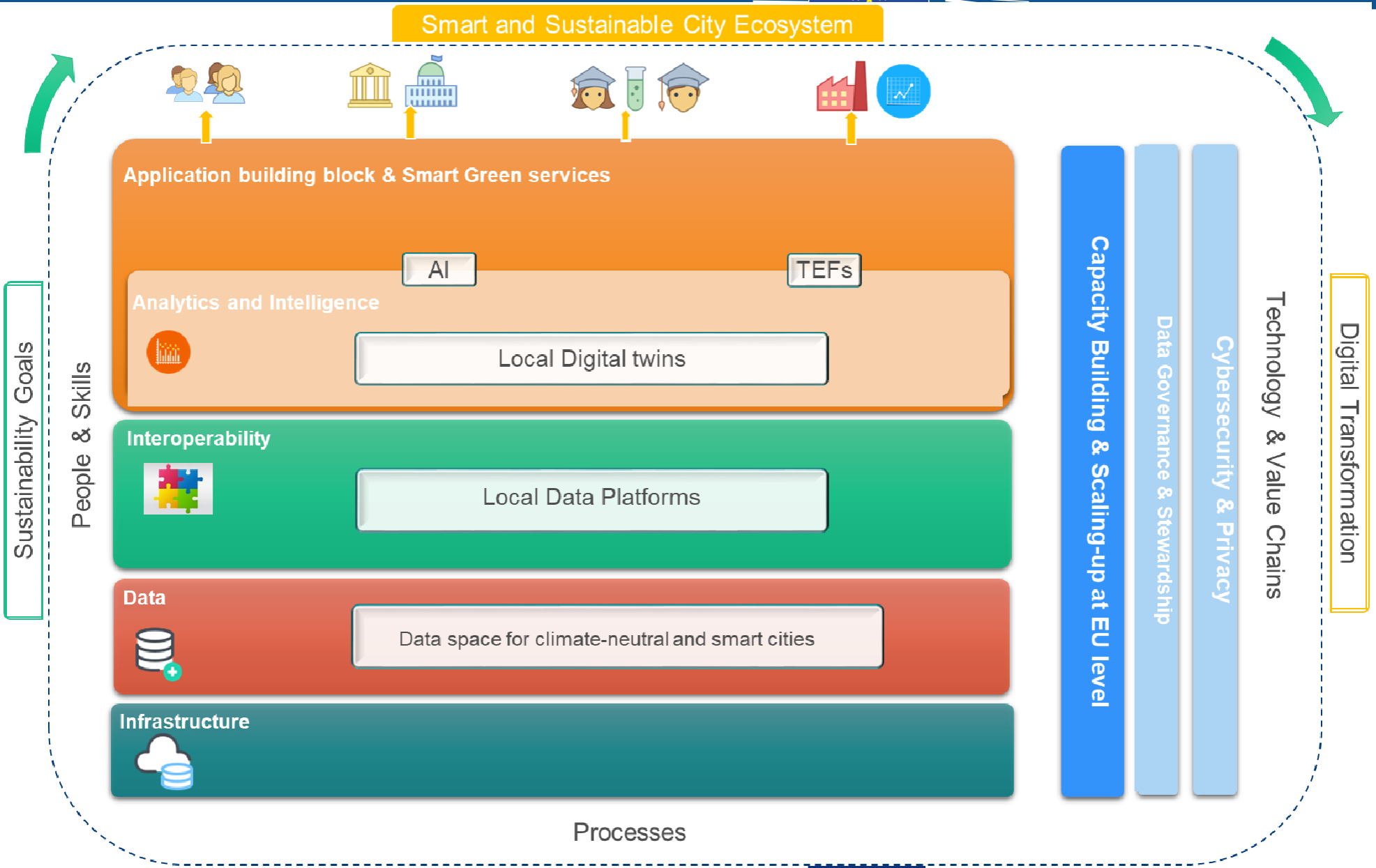
Multi-level governance

European Commission & Committee of the Regions, Finnish Presidency, EUROCITIES, OASC (Open & Agile Smart Cities), ENoLL (European Network of Living Labs), Digital Transition Partnership and cities

- **Commitments:**
  - Financial
  - Technical
  - Legal
  - Education & Capacity building
  - Monitoring and measuring

  - Steering Board

Digital capacity building for cities and communities



AI EDIHs for smart cities

AI TEFs for smart cities

LIVING-IN.EU

- Political context
- Living-in.EU movement
- Data Space for Smart Cities and Communities
- Local Data platforms
- Local Digital Twins

Rationale

- Access to public, but sensitive data (for analytics/AI) – Data Governance Act
- Access and reuse of private data with public interest (B2G data sharing) – Data Act
- European cities need to ensure citizens' digital rights (personal data management)
- Smart cities strive for portable and affordable, innovative cross-sector services (city-to-city & cross-border)

Rollout of common European data spaces

in crucial economic sectors and domains of public interest, looking at data governance and practical arrangements.

Data space: interoperable and secure environment, where currently fragmented and dispersed data can be shared among those, who become part of this data space based upon voluntary agreements and under certain conditions

Challenges – I.

- Open data paradigm helped to increase transparency, citizen engagement and create innovative services, but the data cities need is often not open data

Amsterdam	Copenhagen	London	Paris	Vienna
Transportation	Geospatial	Demographics	Transportation	Transportation
Tourism & Culture	Transportation	Employment	Administration	Environment
Health	Children & adolescents	Health	Culture	Geospatial
Urban development	Statistics	Transparency	Urban development	Administration
Environment		Housing		

Open data domains with the most datasets

- Difficult to access public, but sensitive / not open data (for analytics/AI) – see Data Governance Act

Source: https://www.europeandataportal.eu/sites/default/files/edp_analytical_report_n4_-_open_data_in_cities_v1.0_final.pdf

Challenges – II.

- Difficulty to access and reuse of private data with public interest (B2G)

Current operational models do not scale up

'More secure and regular data sharing across the EU could help public administrations use private sector data for the public good.'
(High-Level Expert Group on B2G Data Sharing)

Source: Digitranscope project

Challenges – III.

- European cities recognise citizen data as a public asset, while they need to ensure citizens' digital rights (personal data management)
- Smart cities strive for portable and affordable, innovative cross-sector services (city-to-city & cross-border)

-> From supply focus to demand focus
-> From open data to shared data

THE EUROPEAN DATA STRATEGY

European Commission

Data space for smart communities

High Value Datasets From public sector

- Driven by stakeholders
- Rich pool of data of varying degree of openness
- Sectoral data governance (contracts, licenses, access rights, usage rights)
- Technical tools for data pooling and sharing

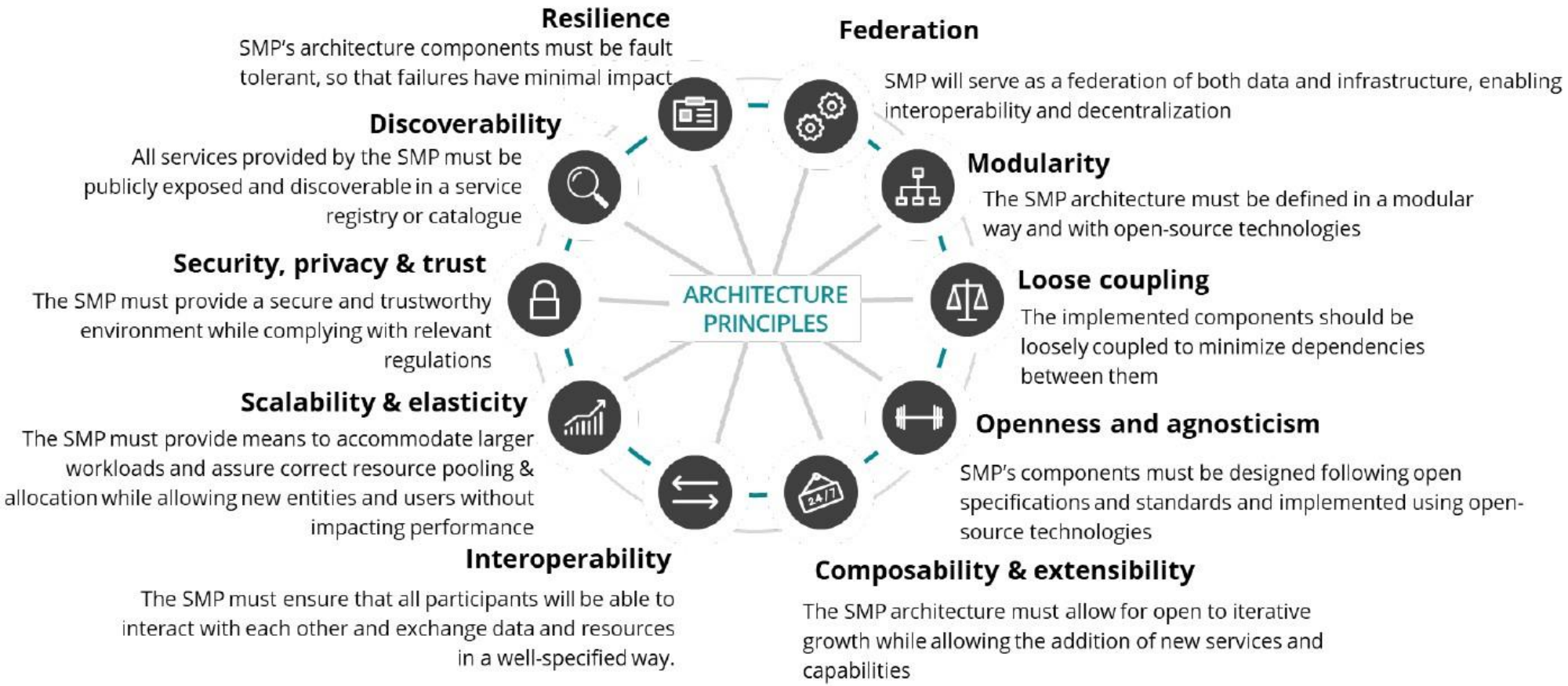
Data space:

Interoperable, trusted and secure environment, where data can be shared under certain conditions

Creation of a '**Data space for smart communities**'

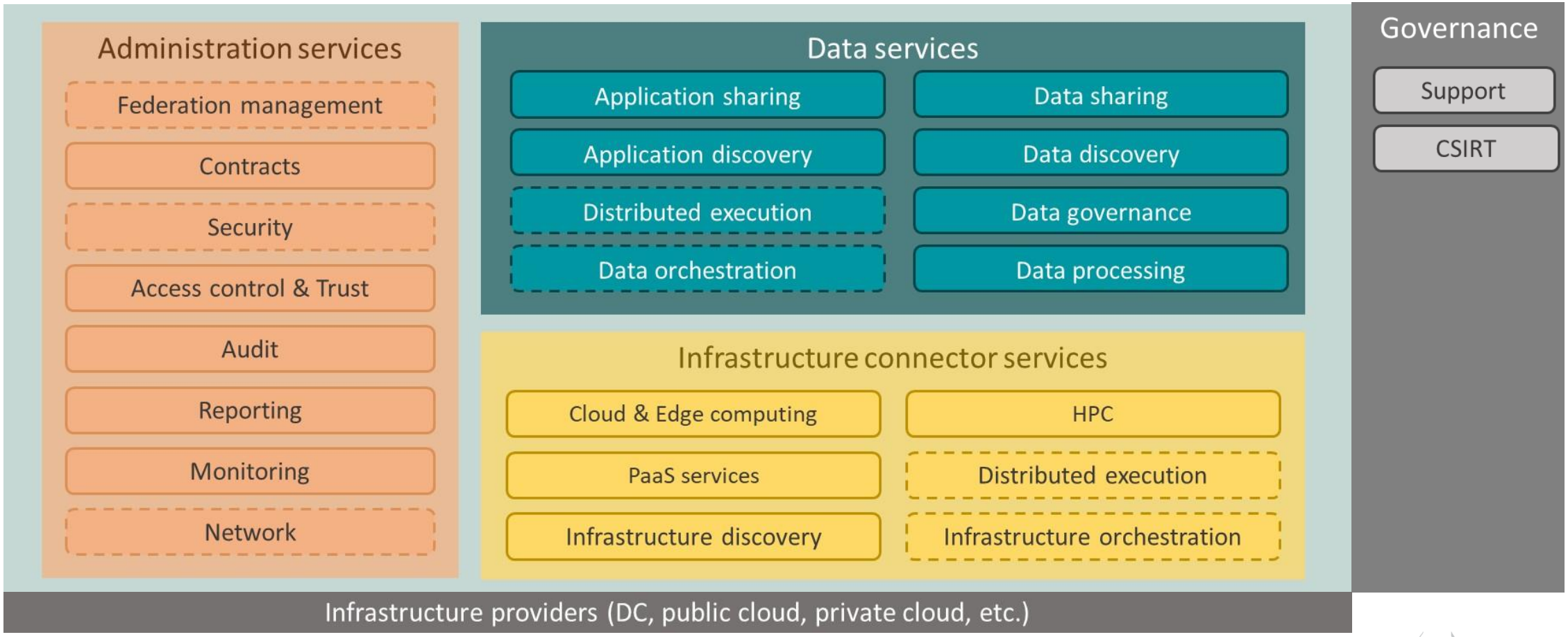
European Commission

Smart Middleware Platform



Architecture principles

SIMPL capabilities



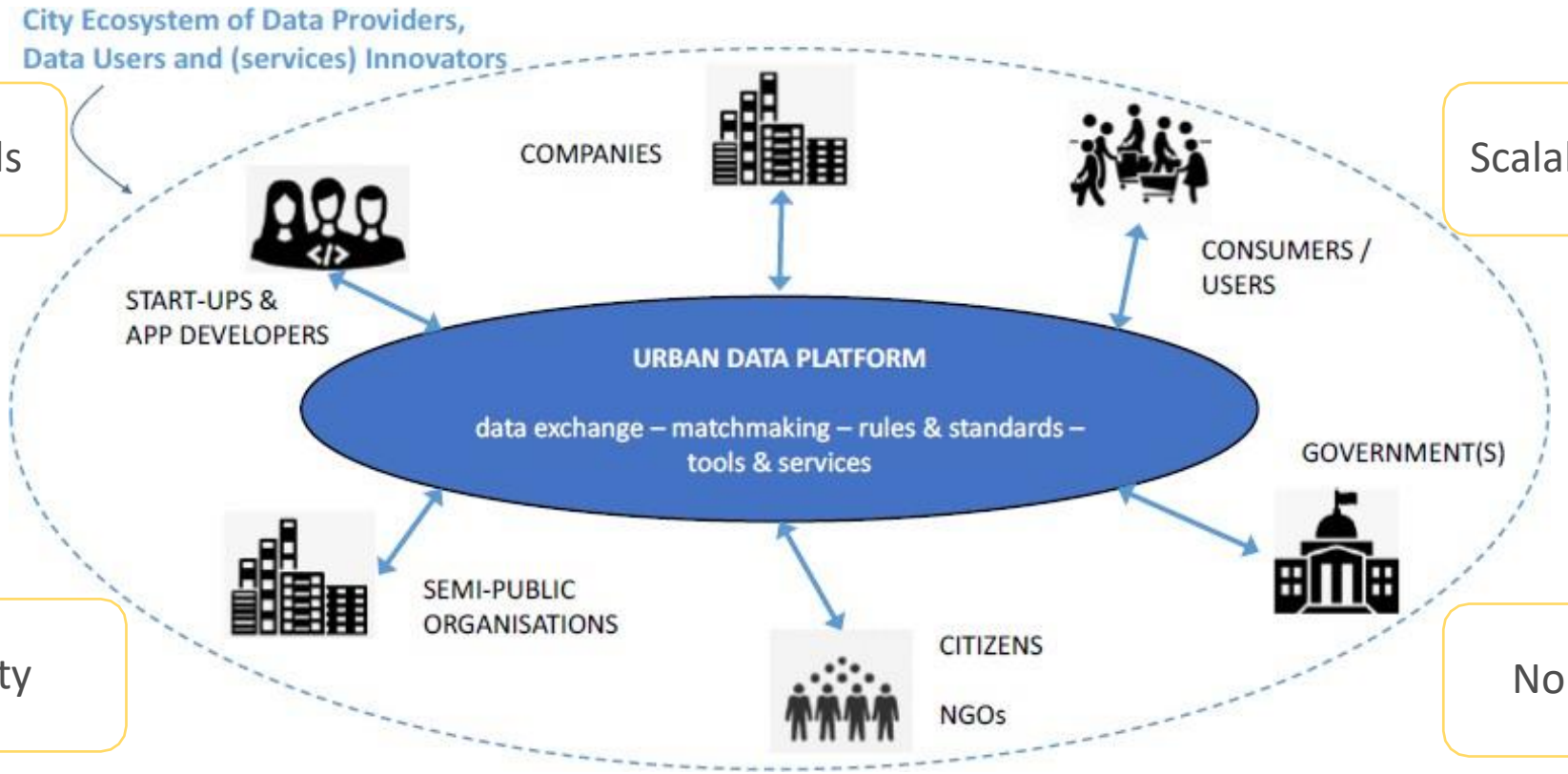
Architecture layers

- Political context
- Living-in.EU movement
- Data Space for Smart Cities and Communities
- Local Data platforms
- Local Digital Twins

Interoperable, standards-based local data platforms

Tailored to the needs

Scalability of solutions



Interoperability

No vendor lock-in

A **Local Digital Platform** is the "operating system" on which digital services can be provided to smart cities and communities, integrating data flows within and across city systems by exploiting modern technologies, such as sensors, cloud services, mobile devices, analytics, etc.

Development of Local Data Platforms in the EU

44%

Exploring & Planning

Alexandroupolis	Évora	Rennes
Alkmaar	Genth	Reykjavik
Amsterdam	Gothenburg	Riga
Bassano del grappa	Graz	Santa Cruz de Tenerife
Berlin	Kerava	Skellefteå
Budapest	Maia	Suceava
Cluj-Napoca	Manchester	Smolyan
Derry	Oostende	The Hague
Eskişehir	Parma	Umeå
Essen	Porto	

25%

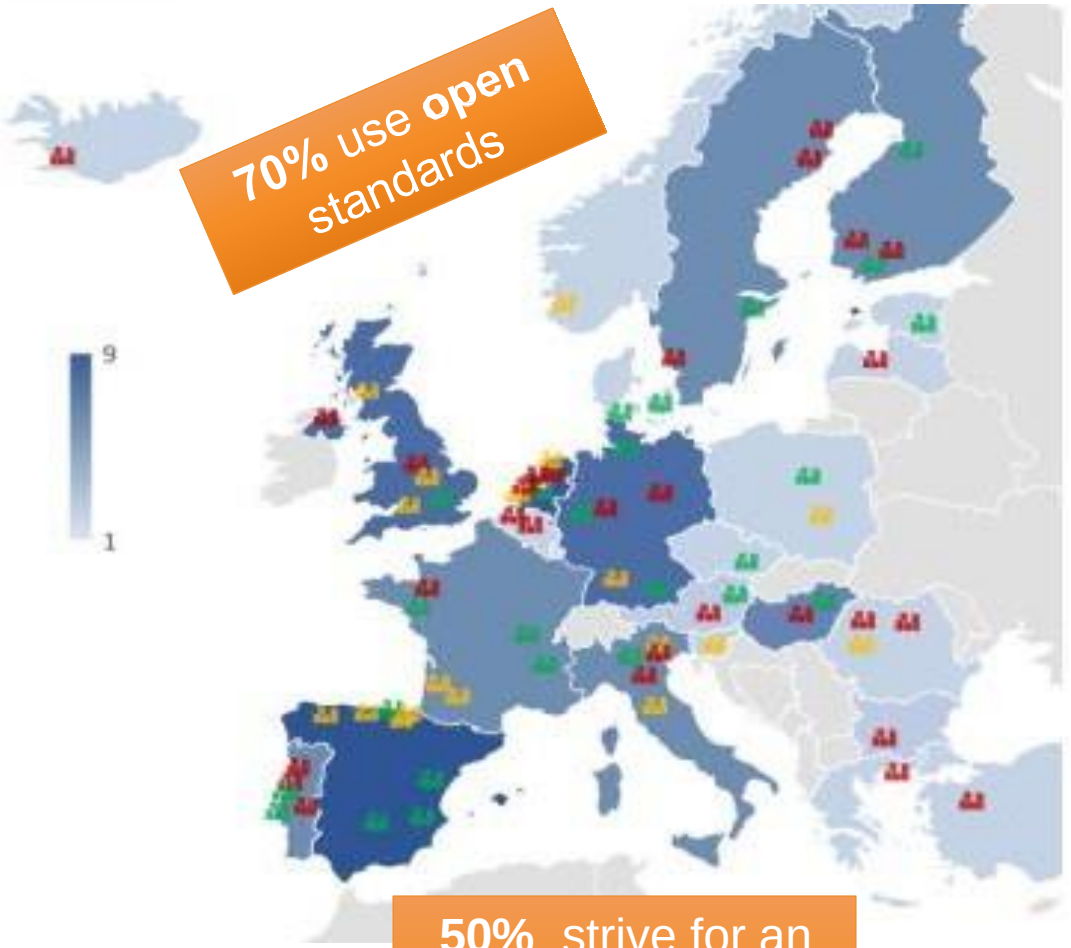
Building & Implementing

Alba Iulia	Linköping	Stavanger
Bilbao	Maribor	Stuttgart
Bordeaux	Nottingham	Trento
Bristol	Pamplona	Tampere
Groningen	Rotterdam	Firenze
León	Saint-Quentin	Glasgow
Lublin	Santander	

31%

Operational

Albacete	Lisboa	San Sebastian
Barcelona	London	Sonderborg
Brno	Lyon	Stockholm
Cologne	Matosinhos	Tartu
Copenhagen	Milan	Utrecht
Grenoble	Munich	Valenica
Hamburg	Nantes	Vienna
Helsinki	Oulu	Warsaw



70% use **open** standards

50% strive for an **open** interoperable platform for **multiple** services

Source: Research Study on Urban Data Platforms in Europe, ERASMUS Centre for Data Analytics, January 2020

** Based on data gathered from more than 100 respondents in 80 European cities*

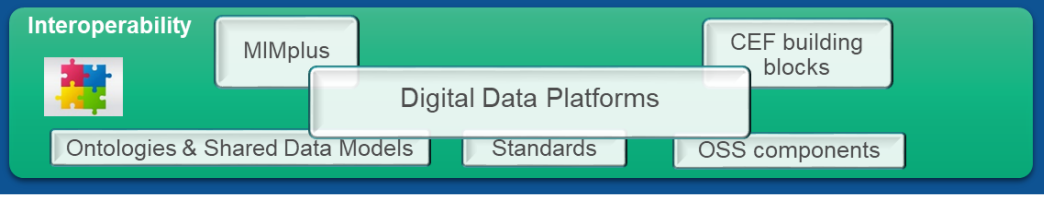
Minimal Interoperability Mechanisms (MIMs Plus)

- Context Information Management
- Common Data Models
- Marketplace Enablers (Ecosystem Transaction Management)
- Personal Data Management
- Fair Artificial Intelligence
- …and many more to come…

U4SSC

G20 Global Smart Cities Alliance

A set of practical capabilities based on open technical specifications that allow cities and communities to replicate and scale solutions globally

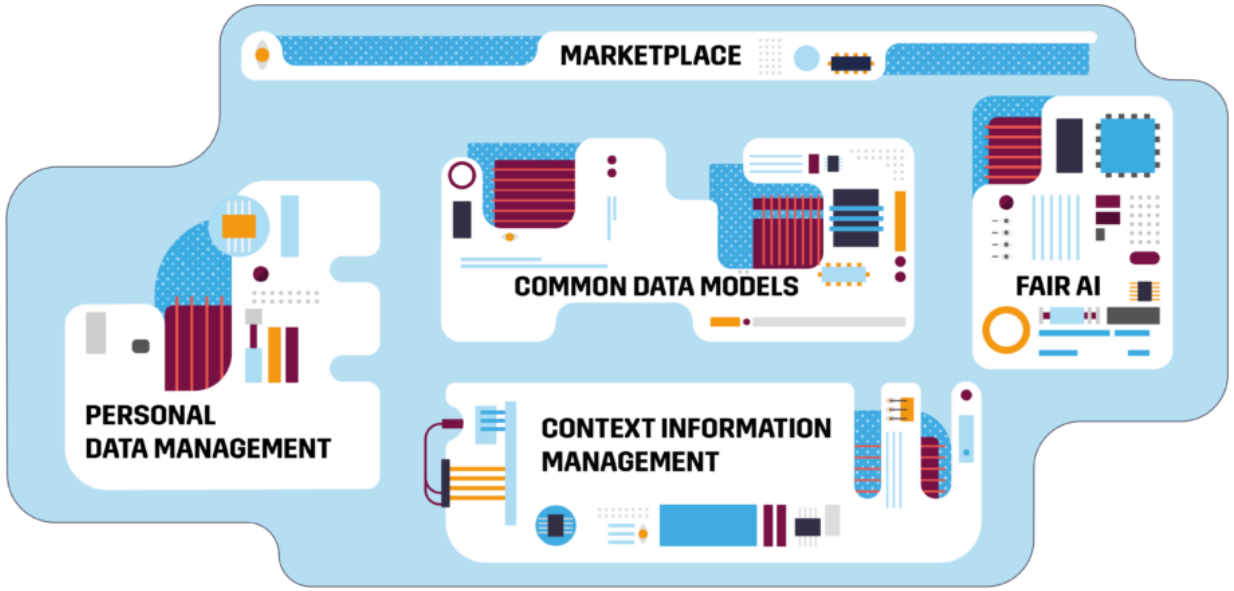


European Commission

Interoperable, standards-based local data platforms

The operating systems of smart cities & communities

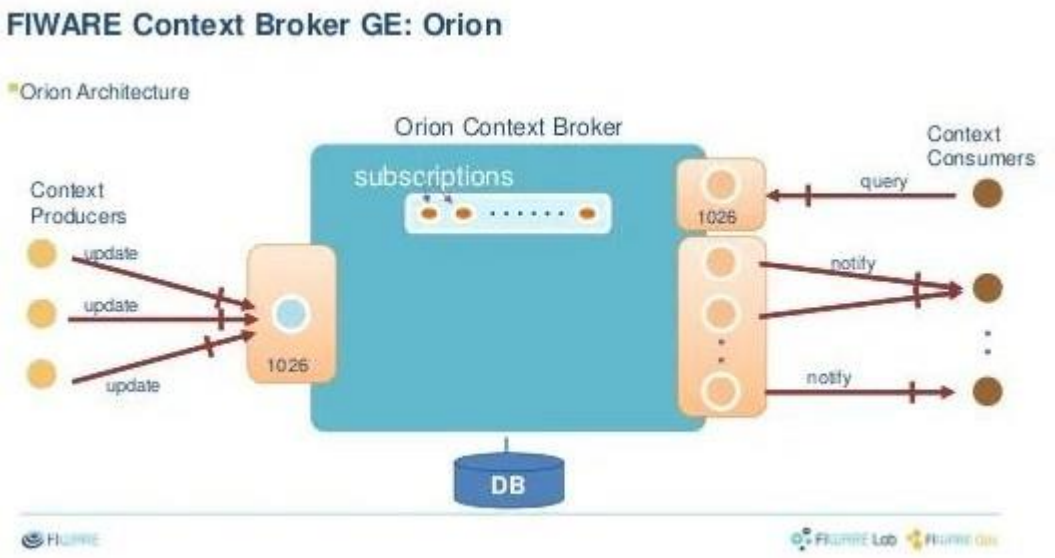
- Local Data Platforms (LDP): Enabling digital technologies to integrate data flows via open standards within and across city systems used by both the public and private sector
- LDP can handle open and shared data (with access restrictions) for the dataspaces
- LDPs will deliver the big data for AI (smart objects, sensors, mobile data, social media data, etc.) & LDP digital infrastructure components will enable the use of artificial intelligence and analytics



European Commission

Interoperable, standards-based local data platforms

Eindhoven



Valencia

- Political context
- Living-in.EU movement
- Data Space for Smart Cities and Communities
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- Local Digital Twins

Potential of AI in cities & regions

- Shared digital workspace, **productivity** and collaboration tools
- **Efficiency and effectiveness** through automated content management and digital workflows
- **Personalised services** by interpreting geographical and temporal data (where and when)
- Public **health** promotion, disease prevention and management
- **Environmental** monitoring (air, noise and water quality, weather monitoring)
- **Public safety**, security, surveillance, monitoring and law enforcement
- Automating operation decisions in **traffic, waste and energy management**
- **Evidence-based policy making**, simulations, modelling, scenario building for strategic decisions

Source: Smartcitiesworld.net

Local Digital Twins

- Urban digital twins are the **virtual representation of a city's physical assets, processes and systems**
- Connected to **data** related to those assets facilitates AI algorithms, data analytics and machine learning
- Combining numerous technologies to create digital **simulation models** that can be updated and changed (**real-time**) as their physical equivalents change
- Providing **a risk-free testing environment** that increases the precision of long-term predictions, improves monitoring and impact assessment of certain decisions for the city's ecosystem
- **Possible benefits**: operational efficiencies, cost savings, more informed decisions, adaptation to climate change, increased resilience, effective urban planning and urban infrastructure management, crisis management, effective coordination of emergency services, participatory governance, improved services for citizens and increased safety and security

Urban digital twins can change the way cities are planned, operated, monitored and managed *('policy-ready-data-as-a-service'*)*
'A playground for city planners' **

* *DUET project*
** *OASC*

Potential of (AI-enabled) Digital Twins

- Operational decisions (short-term) - reactive

  Public safety and crowd dynamics , traffic management, public transport and pedestrian management, facilities management, etc.

- Strategic (long-term) decisions - predictive

  Urban planning and development, asset and infrastructure management, environmental and climate monitoring & planning, energy usage and solar deployment, etc.

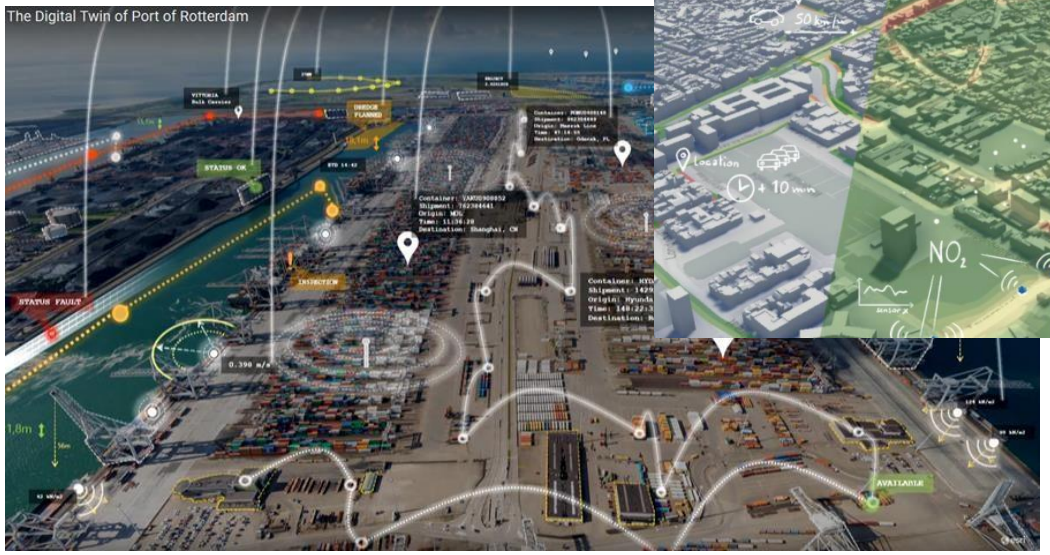
Local Digital Twins can save USD 280 billion in city planning, development and operating plans
(Source: ABI Research)

Local Digital Twins can:
- Reduce operating costs by 35%
- Boost productivity by 20%
- Cut emissions by 50-100%

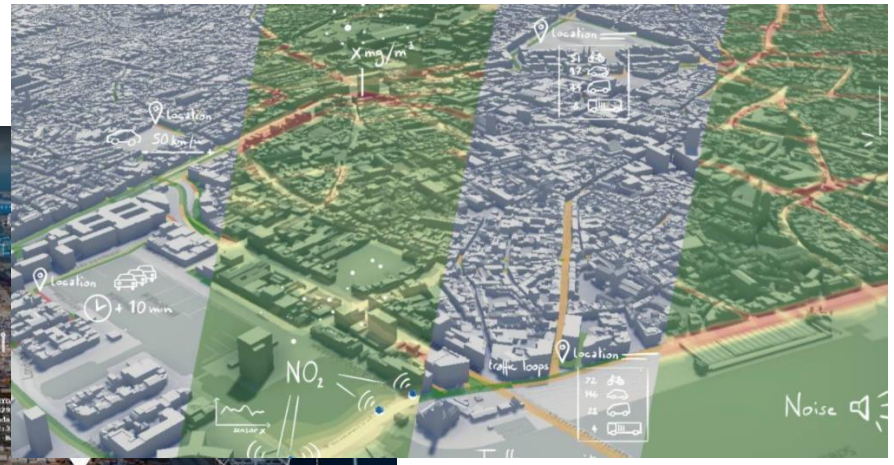
(Source: CityZenith)

Sample implementations of AI with Local Digital Twins

Newcastle



Rotterdam



Antwerp 3D

Helsinki

SPHERE
BIM DIGITAL TWIN PLATFORM

Virtual buildings

LEAD

Madrid, den Hague, Budapest, Lyon, Oslo and Porto

DUET

Flanders, Athens, Plzen

European Commission

Thank you!

European Parliament Think Tank - Artificial Intelligence and Urban Development (fresh from the print):

https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2021)690882

European Commission

Our next speakers

Dana Eleftheriadou

Head of Cities and Proximity Team, DG GROW-G.2

Natalia Gkiaouri

Policy Officer, Proximity and cities, DG GROW-G.2

The Intelligent Cities Challenge (ICC)

The European Commission's 100 Intelligent Cities Challenge

Smart tourism destinations Launching meet up

The Intelligent Cities Challenge (ICC)

Cities leading the green and digital transition of the local economy and society

Dana Eleftheriadou

19th September 2022

European Commission | The Intelligent Cities Challenge is funded by COSME, the EU programme for the Competitiveness of Enterprises and SMEs

Why cities matter?

The EU consists of more than **80,000** cities and towns

Cities cover
3%
only of the land on Earth

account for
80%
energy consumption

account for
75%
waste & carbon emissions

Cities produce
80%
of GDP

home to more
70%
of EU population

Cities implement
70%
of EU legislation

Cities handle **1/3 of public spending**
and manage **2/3 of public investment**

European Commission | The Intelligent Cities Challenge is funded by COSME, the EU programme for the Competitiveness of Enterprises and SMEs

The European Commission's 100 Intelligent Cities Challenge

Leading the green and digital transition of the local economy and society

The **Intelligent Cities Challenge initiative** brings together an active community of 136 EU cities from 21 countries, representing 34 million EU citizens, to lead the green and digital transformation of their local economy and foster social resilience, leveraging cutting edge technologies and innovation.

It provides cities with clear direction on local industrial and SMEs development that is environmentally sustainable and socially just.

Tailor-made, strategic guidance and expert support, access to city networks, capacity building tools.

European Commission | The Intelligent Cities Challenge is funded by COSME, the EU programme for the Competitiveness of Enterprises and SMEs

The European Commission's 100 Intelligent Cities Challenge

ICC

Making the most of advanced technologies for Green and Digital Recovery and Social Resilience

The European Commission's 100 Intelligent Cities Challenge

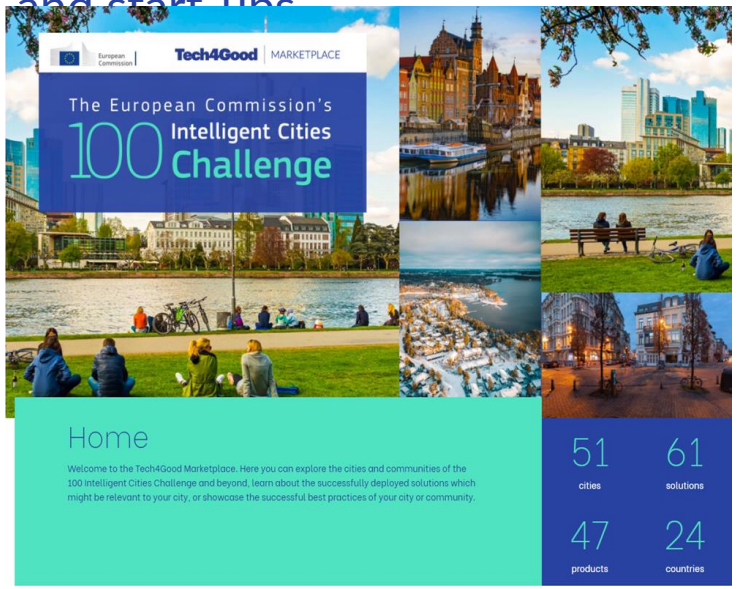
Opportunities for Cities

Local Green Deals

- **Local action plans** to support economic, environmental and social sustainability.
- **Join up existing strategies** into a coherent **local alliance** to deliver the EU Green Deal Policy at local level.
- Create **new jobs** and accelerate a new, green and fairer recovery.

Technology for Good

- **Technology-powered solutions** and business models designed to advance economic, social and environmental causes.
- To address the most **pressing challenges** with technology.
- Solutions by **local SMEs, researchers, social enterprises** and start-ups.



Up & reskilling of local workforce

- **Local multi-stakeholders partnerships** to implement the **Pact for Skills** at local level.
- Putting in place **tailored, local reskilling network**, involving companies, knowledge institutes, local authorities and citizens.

European Commission | The Intelligent Cities Challenge is funded by COSME, the EU programme for the Competitiveness of Enterprises and SMEs

The European Commission's 100 Intelligent Cities Challenge

ICC Major actions

Smart, green and resilient cities and communities
Dialogue of Commissioner T. Breton and EU Mayors,
2 December 2021

Joint Mayors Summit on Local Green Deals
Intelligent Cities Challenge (ICC) and the European Committee of the Regions
22 June 2021

ICC upcoming events

On 15 and 16 November 2022, we will be coming together in Barcelona, Spain for the ICC Conference and Mayors Forum. This event is only open to cities and experts participating in ICC.

The COVID-19 crisis provided an opportunity for city dwellers and planners to rethink drastically, their consumption, production, living and travelling paradigm towards cleaner, greener, more human lifestyles that also offer new economic opportunities and jobs for their citizens and businesses.

Vision for 2030 - New urban models and call for action

1. Human centric city models
2. Collaborative governance and citizen participation
3. Urban planning, green infrastructure, compactness
4. Clean urban mobility
5. Clean, affordable energy and social housing
6. Sustainable products and services, including sustainable tourism, sustainable public procurement
7. A supportive business environment, data management and Sharing platforms

Smart tourism destinations
Launching meet up

The European Commission's 100 Intelligent Cities Challenge

Intelligent Cities Challenge

Tourism activities

Natalia Gkiaouri
Grow G2 – Cities and Proximity

Green and digital transition of Tourism

Digital and Data → Smart Destinations

Policies & Strategies → SmartTourism

Green and resilient → Sustainable Tourism

ICC has been at the core of the post-Covid recovery of the tourism sector challenges

Tourism has been one of the hardest impacted industry in Europe. To boost the tourism recovery, all the initiatives have identified Digitalisation and Sustainability as the main pillars.

ICC is one of the best positioned initiatives in Europe to reach directly the local level and at the same time, it has been working to generate bridges and knowledge towards the digital transformation of cities. Local levels need:

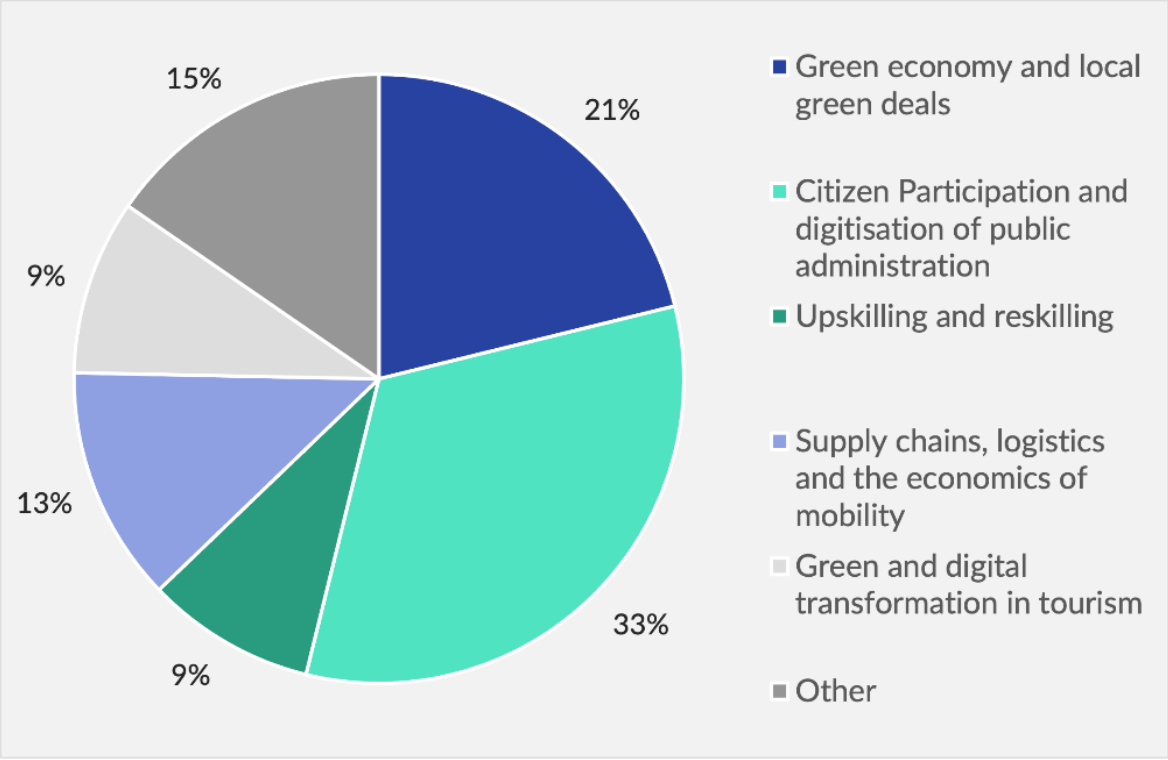
- Mentoring with the cities that have been successful in overcoming any of the present challenges (SMES competitiveness, data management, flows management, tourism attractiveness…)
- But also examples and direct contact with the cities that have been successful in overcoming any of the present challenges

ICC links cities with European tourism initiatives:

- Direct or indirect involvement of ICC in new initiatives, programmes and interests emerged in the post-covid period for Tourism: Tourism transition pathway, Smart Tourism destination, European Tourism Data Space, etc.
- Constantly informing cities on the latest developments

Solutions – volume and split by thematic track

Solutions are in line with the twin transition goals of digitalisation and green transition across thematic tracks, including skills, tourism and mobility



- In total 312 different solutions were launched under ICC (Phase III)
- Each city developed between 1 and 12 solutions, with various scopes.
- The most popular thematic track is “Citizens participation and digitalisation of public administration” with 102 solutions, or 33%, by 47 cities.
- 29 solutions are developed under the “Green and digital transformation in tourism thematic track”, or 9%, by 17 cities.

Solution types common among ICC cities for the “Green and digital transition in tourism” thematic track

Definition and implementation of a tourism strategy	Provision of smart tourism infrastructures in strategic places of the city	Development of new digital tourism tools and portals	Creation of well-connected tourist-friendly local routes
Example: Sustainable and inclusive tourism model (Coastal Towns Association)	Example: Smart beach services (Cartagena)	Example: Develop an interactive map app (Arad)	Example: ECORouTs (Heraklion)

Note: Includes all solutions until Phase III

Different tourism activities were conducted in ICC – Key highlights

Organisation of dedicated tourism sessions during 4 City Labs	Network of recognised Experts in Tourism	Promotion of ICC activities in local tourism meetings	Organisation of Geographical Chapter
Participation of mentor cities, EC representatives, ICC cities and experts	Experts from different EU countries	Promoting the activities implemented in the ICC: FITUR, TIS, BTO Firenze, etc.	3 pillars: Tourism, Role of Data and Local Green Deals
Topics: Tourism data, tourism recovery/ reactivation, Tourism post-covid, green and digital solutions	Supporting the cities in the implementation of their solutions		Sessions dedicated to Access to funding

Challenges and Considerations

ICC thematic track has been challenged:

- ICC lived a pandemic period in which Tourism was the most affected industry.
- Before and after COVID for the Tourism industry: for the destinations, for tourists, for the industry but also for the EC.

Many cities encounter difficulties to:

- involve and coordinate stakeholders
- manage and exploitation of digital infrastructures such as data platforms
- ensure the inclusiveness of the digitals solution, avoiding exclusion of customers/businesses without access to IT from Digital Tourism Management plan
- lack of funding, delays in implementation and ensuring the quality delivered by service providers

Additional post-Covid considerations:

- Destinations need a Tourism Strategy with an Action Plan to ensure their success in the long term. There is a general lack of plans at destination level.

Trends in the tourism sector reflect its complexity

Data-based tourism:

- DATA is key for the future of Tourism but DATA is a general challenge in all cities

Human-based tourism:

- It is important to have in mind that Tourism is an industry made by and for PEOPLE.
- One of the main challenges of the destinations is to keep its authenticity.

Tourism has strong links with other sectors and synergies with many other industries, importance of managing them correctly:

- Green transformation is of the essence
- Tourism can not be understood without mobility, and connectivity is key to ensure prosperous destinations.
- VR/AR are there to complement the Tourism experience but not to substitute it.

Europe is a worldwide leader in Tourism and new efforts are being dedicated to destinations, companies and people.

Results of the study 'Mastering data by EU tourism destinations'

Carlo Montino, Intellera Consulting

Alfonso Cereza Medina, UMA

SMART TOURISM DESTINATIONS

Overview

The study provides an **analysis of the state of the art** on the use of **data** in the **tourism sector** in Europe and across the world.

In addition, it offers a series of recommendations to catalyse the use of data by European destinations to improve their tourism offer.

The concept of smart tourism destination

A smart tourism destination facilitates access to tourism and hospitality products, services, spaces and experiences through **ICT-based innovative solutions**, making tourism **sustainable and accessible**, and fully leveraging their **cultural heritage and creativity**

Key areas of analysis of the study

- ✓ Purpose areas of data use
- ✓ Types of data used
- ✓ Types of data users
- ✓ Main challenges
- ✓ Forces driving change
- ✓ Good practices and cooperation examples
- ✓ Recommendations

Available for download on our project website:
https://smarttourismdestinations.eu/digital-library/

Methodology

Identification of data uses for tourism purposes by destinations and related challenges

- Desk research
- Interviews
- ★ ***Output :*** *Database of data uses for tourism*

Mapping of existing good practices at tourism destinations

- Desk research
- Interviews
- ★ ***Output :*** *Assessment of 200 cases of data use for tourism, 30 Good practices factsheets*

Analysis of future trends in the data management of tourism destinations

- Desk research
- Interviews
- ★ ***Output :*** *Key implications for future smart tourism trends*

Analysis of opportunities and areas for cooperation on data management

- Desk research
- Interviews
- ★ ***Output :*** *10 case studies of cooperation factsheets*

Literature review

Stakeholder mapping

Sources triangulation

Purpose areas of data use and types of data users

Purpose areas of data use

Improve interaction and engagement with the tourist

Development of **tourism services increasingly personalised and based on a higher degree of interaction** with the customer/end-user.

Conduct market analyses and inform decision-making

Higher availability of data and improved data analytics capabilities allow **improvements in market analysis and decision-making.**

Improve planning and operations of tourism services

Understanding (and possibly predicting) tourism patterns through data can help to **improve the overall efficiency and competitiveness of the tourism ecosystem.**

Increase destinations sustainability and accessibility

Enhanced analysis and management of data can improve the destinations sustainability and accessibility producing **positive impacts on society at large**.

Types of data users

Tourism destinations and public authorities

This includes a wide variety of different entities, from multilevel PAs, to education institutions and cultural heritage sites. In some cases, destinations **mutualise the effort** by establishing partnerships, even cross-border. In larger countries, regional administrations sometimes **launch strategies** involving the entire regional tourism ecosystem.

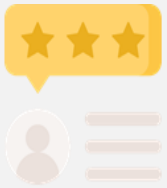
Private sector – Tourism industry

There is a **wide spectrum of private actors** specialising in the provision of services for the tourism sector: **big vacation rental sites and touristic metasearch engines**, hotel groups, and a growing number of **IT and software companies** offer tourism-specific data-driven and data analytics services.

Private sector - Other

These are private companies not directly related to the tourism sector, but **capable of acquiring or producing high value data sets.** These include for instance telecommunications companies. They usually sell the data they collect to operators in a variety of sectors - including tourism.

Types of data used and sources



User generated data

User-generated content (UGC) is data produced and made available by tourists themselves. UGC can be divided into two main sub-categories: **textual information** (such as reviews, posts, etc.) and **photos** (usually uploaded on social media, including additional information, such as locations, time and tags).

Photo | **Textual**

01

Transaction data

The rise in **cashless payment solutions** – from shops to public transports, accommodation and tourism sites – generates **massive amount of tourism-related commercial data**. Such data is generated **anytime a transaction is performed**, including in **the pre-visit phase**.

02

Web search and webpage visiting | **Online booking and purchasing** | **Consumer card transactions**

GPS, mobile roaming, RFID, bluetooth, meteorological, Wi-Fi | **Smart city (pollution, traffic, waste, etc.)**

03

Device data

The widespread adoption of smart city solutions has paved the way for **tourism-specific measurements and data collection**. Device data can be divided in data collected by devices and sensors that allow the **tracking of movements**, and data collected by **smart city devices and sensors**.

04

Business information | **Statistics** | **Context specific information**

Other data

High value data can also come from other sources, including **private businesses datasets** (e.g., data on the number of passengers held by airlines), **statistics** (such as datasets published by public authorities), and **context-specific information** (e.g., the information on the history of a place, which can be used to develop a virtual reality experience).

Forces driving change

Socio-demographic changes

- Propensity to remain connected
- Boost in lifelong learning
- Changes in the purchasing process
- Ageing population
- Digital natives to become the main consumers of smart tourism
- Increased propensity for health tourism

An **ageing population** and progressively **higher rates of digital literacy** represent two defining demographic trends with direct implications for the tourism sector.

Technological progress

- Enhancement of mobile networks
- Big data technologies
- Cloud computing
- Increased data connectivity
- Voluntary data capture and profiling
- Evolution in IoT
- Combination of AI and AR
- Data interoperability and re-use
- Increasing awareness of data ownership
- Robotics for tourism
- Biometric for personal identification
- Cyber security and blockchain

The growth of connectivity and distributed infrastructures are making **digital transformation increasingly accessible and capillary**. Data represent the key fuel for most of these forces.

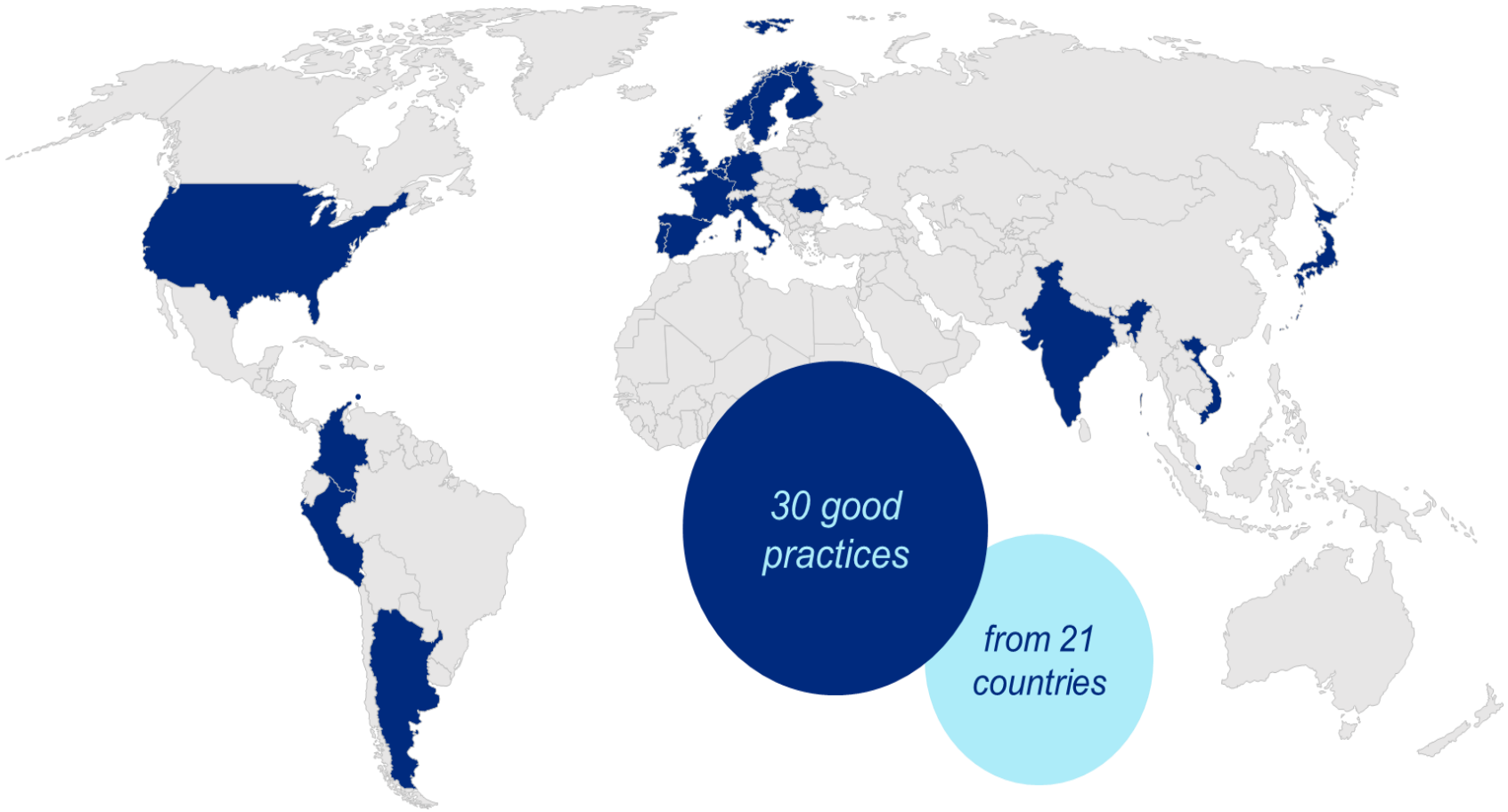
Sustainable development

- Changes of travellers' behaviour due to the COVID-19 pandemic
- Increasing sharing economy
- Growth of green tourism
- Increase in the number of digital nomads and remote workers
- Low cost business models
- New business models

Already occurring before the COVID-19 crisis, these forces are expected to drive change towards a **more inclusive, economically and environmentally sustainable sharing economy.**

Smart Tourism good practices

The study team assessed **nearly 200 instances of data uses** for tourism across the world. Out of these, **30 instances of particular interest have been selected as good practice,** and **10 notable cases of successful cooperation** between different destinations have also been identified.



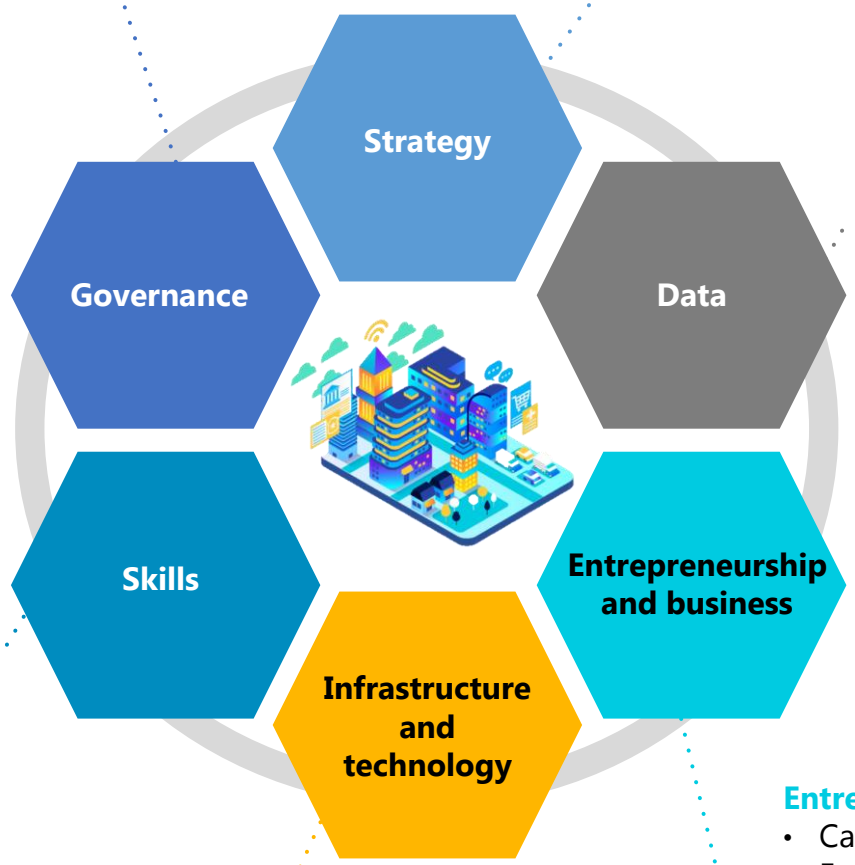
For instance… Venice developed a smart system to monitor the influx of individuals based on sensors, cameras and mobile phone data. Sensors – strategically placed at the key intersections and squares – allow to detect the transit of pedestrians. Similarly, cameras provide real-time images of crowds and flows. Finally, mobile phone data allows to track the movements – and other pieces of information such as the region of origin – of individuals. Such a comprehensive monitoring system allows the city to assess both historical and real-time flows, and enables the modelling of physical phenomena such as crowds in specific areas at specific times.

Recommendations

Governance
- Create an innovation and enabling environment
- Appoint a dedicated team or officer with responsibility for smart tourism
- Build a data sharing culture among stakeholders

Skills
- Ensure the involvement of a balanced mix of skills
- Source/train the required skills
- Enhance skills through collaborations
- Support cultural change

Infrastructures and technology
- Open APIs
- Set up a scalable and flexible IT infrastructures



Strategy
- Prepare a data strategy and execution plan
- Specialise on targeted groups
- Use data to inform the policy cycle

Data
- Exploit available context-specific information and statistics
- Ensure the availability of a data sharing platform
- Invest on metadata management
- Develop a strategy for external data acquisition
- Establish a set of indicators
- Respect data privacy and security concerns
- Build a data sharing culture (e.g. adhere to the Code of Conduct for data sharing in tourism, share data in the European Tourism Data Space)

Entrepreneurship and business
- Catalyse the digital transformation of tourism businesses
- Encourage uptake and investment in new digital technologies by tourism businesses

The Destinations Journey and the Community of Practice

Costanza Bersani, Intellera

Silvia de la Maza, CARSA

SMART TOURISM DESTINATIONS

Overview of our goals and objectives

Destination's Journey

Specific objective

Support selected destinations with general and tailor-made capacity building activities

How

We will provide you a set of **training and coaching activities** to improve your data-driven smart tourism capacity

Each selected destination will also be supported by a Smart Tourism Expert

Community of Practice

Specific objective

Establish a **network of tourism destination and other stakeholders** to meet and share their knowledge, experiences and solutions

How

We will organize a **series of webinars to foster knowledge sharing** and **set up and animate a LinkedIn group to foster networking**

Final objective

Support EU destinations to adopt data-driven approaches to become or improve as Smart Tourism Destinations

The 5 Key Pillars of a Smart Tourism approach

The **training and coaching activities** and the **events open to the community of practice** will support you becoming or improving as a Smart Tourism Destinations based on the **5 key pillars we identified as the basis of a Smart Tourism Approach**

1	2	3	4	5
Strategy and Governance	**Data collection, management and technological solutions**	**Human Capital and Skills**	**Knowledge Transfer**	**Ecosystem Management and Partnerships**

***Transversal topics**: assessing your as is situation + procurement, funding and financing*

Type of activities

Launching event

Key goals:

- Build up the community and share the project goals and activities
- Share the latest updates from the EC initiatives and policies
- Discuss challenges, opportunities, and insights on Smart Tourism

Webinars

Online appointments **deep diving with experts and invited speakers on the five pillars of a Smart Tourism approach**, sharing insights and use case.

The webinars will include Q&A sessions.

Workshops

Online workshops to support destinations in their journey, providing **guidance on how to improve under the different pillars** making up a Smart Tourism approach, how to build their roadmap, and on transversal relevant topics.

Coaching activities

Ad-hoc individual coaching sessions for each destination, to support you assessing your as-is situation, identify key actions to get Smart(er) and work on your Smart Tourism Destination's roadmap.

Online Peer learning & matchmaking

Online events to **foster networking, knowledge sharing, and matchmaking**.

These appointments will closely linked to the other capacity building activities.

Activities open to the external stakeholders and the wider community of practice

Tailored capacity building and networking activities for selected destinations

The Road ahead (1/2)

Our Destination's Journey has started in May, with the virtual kick-off. News and materials available on our website!

Today & tomorrow!	Sharing our goals and introducing our key tools: the study, the guide, and the toolkit, plus the self-assessment
October Week 3	The Smart Tourism Maturity self-assessment: setting the basis to get Smart(er) *(The self-assessment)*
November Week 1	Smart Tourism visions and ambitions: emerging strategies and governance models (*Pillar 1)*
November Week 3	Get inspired and pick up new tools: innovative technologies and smart solutions for tourism *(Pillar 2)*
December Week 1	Develop your strategy and prioritise specific data-driven actions for your Smart Tourism Destination (*Pillars 1 and 2)*
January Week 3	The future of work: new skills and profiles for Smart Tourism and how to get ready *(Pillar 3)*
February Week 2	Opportunities and tools for data and knowledge sharing: latest trends and possible solutions in Smart Tourism *(Pillar 4)*

Recap of the Destination's Journey structure (1/2):

- The initial coaching session will support you **setting the basis for the Journey** and will focus on the Smart Tourism Self-Assessment. More on this tomorrow!
- Each of the 5 Smart Tourism pillars will be covered during a dedicated **webinar, open to external stakeholders,** to **explore the topic, share insights and latest trends, and learn** from the experts and speakers
- During the **workshops** selected destinations will work together on **how to improve under the different pillars** covered in the previous webinars

The Road ahead (2/2)

March Week 1	How to improve the Human Capital and Skills of your Smart Tourism Destination and foster knowledge sharing *(Pillar 3 and 4)*
March Week 4	Online Meet Up: exploring Smart Tourism good practices and making connections
April Week 2	Data and tourism ecosystems: from mapping to managing *(Pillar 5)*
April Week 4	Tool and tips on ecosystem management and developing your Smart Tourism Destination's Roadmap *(Pillar 5 + roadmap)*
May Week 2	Looking back and moving forward: review of previous activities and deep diving on your priority Smart Tourism pillars
May Week 4	Your Smart Tourism Destination's Roadmap: on site workshop with your coach
June Week 2	Online Meet Up: exploring Smart Tourism good practices and making connections

Recap of the Destination's Journey structure (2/2):

- Two **peer learning and matchmaking** events will be organized in 2023
- In addition to the initial coaching activities dedicated to the self-assessment, selected Destinations will also be supported during an **ad-hoc coaching session on their Smart Tourism roadmap**
- In addition, selected Destinations have the possibility to **organize a third 1:1 coaching session to deep dive in their priority areas**.

Implementation of the Destinations Journey

STD Tools

Study – Mastering Data

01

Toolkit – Mastering Data

02

EU Guide

03

May
Online Kick-off Meeting

September
Launching Meet Up

October
- Self-assessment coaching activity
- Webinar Pillar 1

November
Webinar Pillar 2

December
Workshop on Pillars 1 & 2

January
Webinar Pillar 3

February
Webinar Pillar 4

March
- Workshop on Pillars 3 & 4
- Online Peer learning and Matchmaking

April
- Webinar Pillar 5 and roadmap
- Workshop on Pillar 5 and roadmap

May
Coaching on priority areas and roadmap

June
Online Peer learning and Matchmaking

Panel of Experts

Meet the Panelists!

Tomáš Gajdošik

Moderator

Dagmar Lund-Durlacher

The importance of (good) governance for being a Smart Tourism Destination

Mirko Lalli

The role of data when aiming to become a Smart Tourism Destination

Marìa Dolores Ordóñez Martinez

Why partners and people are key in the management of a Smart Tourism Destination

SMART TOURISM DESTINATIONS

The role of DATA when aiming to become a Smart Tourism Destination

MIRKO LALLI
CEO & FOUNDER
THE DATA APPEAL COMPANY

Launching Meet Up!
Brussels, 19 – 20 September 2022

Data Driven Destination (in 5 steps)

MIRKO LALLI

SMART TOURISM DESTINATIONS

Big Data vs Small Data

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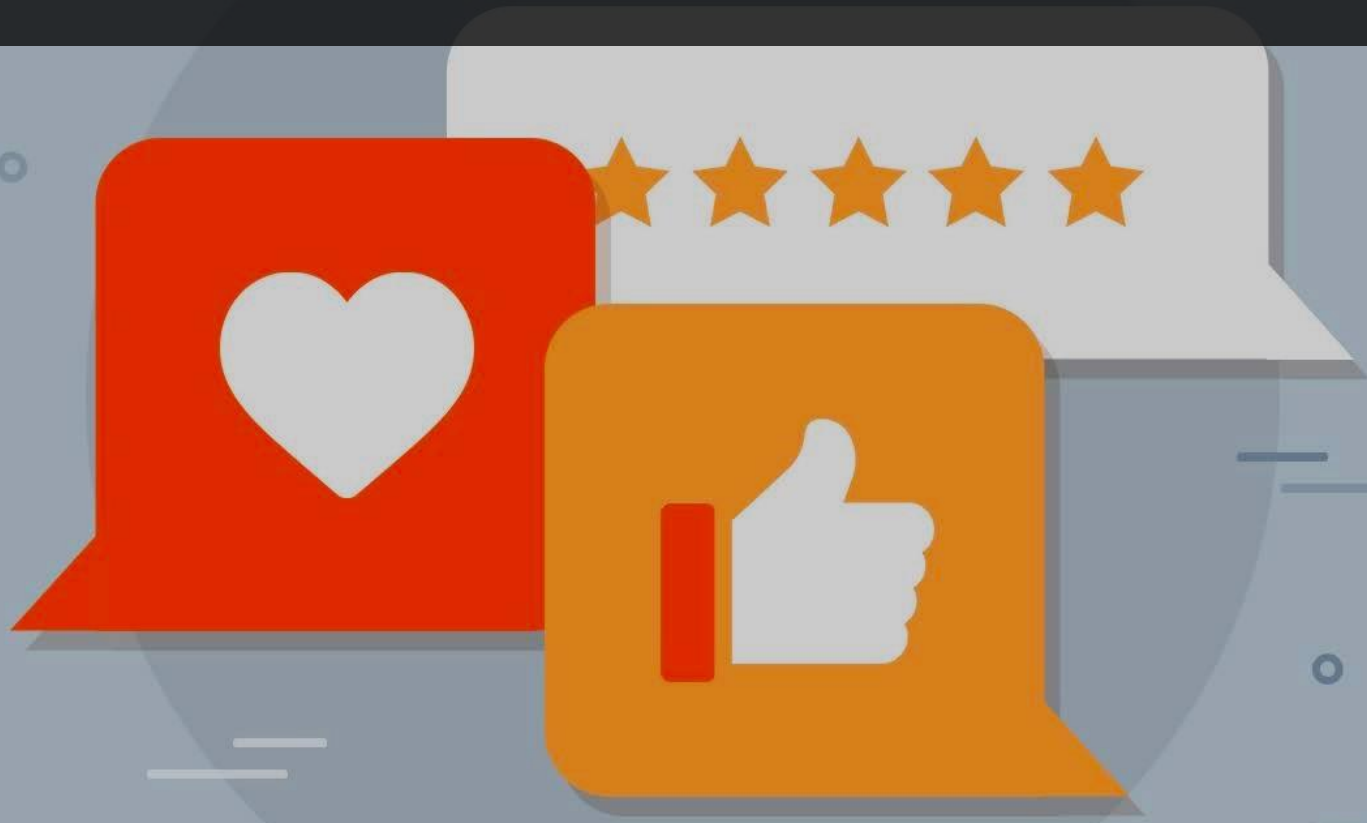
don’t rely *only* on quantitative data…



Everything is “Tourism”

Everything is measurable?

find a proxy for what it is not…

!

Empower stakeholders through DATA

SMART TOURISM DESTINATIONS

Sustainability matters

SMART TOURISM DESTINATIONS

really, sustainability matters a lot!

The New York Times

patagonia®

Billionaire No More: Patagonia Founder Gives Away the Company

We are going to give away the maximum amount of money to people who are actively working on saving this planet

Yvon Chouinard

SMART TOURISM DESTINATIONS

MIRKO LALLI

SMART TOURISM DESTINATIONS

> The greatest danger in times of turbulence is not the turbulence it is to act with yesterday's logic.
>
> Peter Drucker

Launching Meet Up!
Brussels, 19 – 20 September 2022

MIRKO LALLI

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ENDEAVOR ENTREPRENEUR

Singularity UNIVERSITY

Harvard Business School

SMART TOURISM DESTINATIONS

The importance of (good) governance for being a Smart Tourism Destination

Dagmar Lund-Durlacher
Eberswalde University for Sustainable Development, Austria

Launching Meet Up!
Brussels, 19 – 20 September 2022

Characteristics of Smart Destinations

The **strategic objectives** are broadened to focus not only on **economic development**, but also include **sustainable development, responsible resource management, improving the quality of life, and enhancing the well-being of stakeholders and the local community**. **Strategic goals** may be:

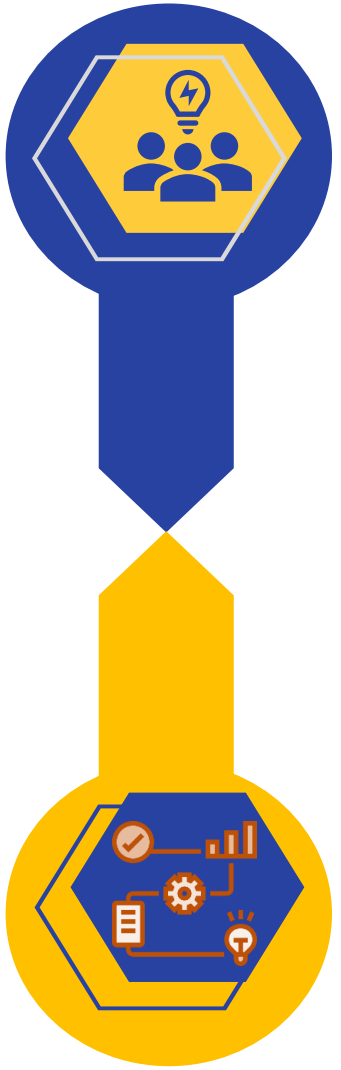
- Add value to businesses, residents, and tourists.
- Focus on value and experience co-creation.
- Spread visitors in time and space.
- Enhance place (destination) for residents and tourists (e.g., infrastructure)
- Enhance well-being of community

Developing and **implementing** a smart tourism strategy requires **efficient** and **collaborative governance** that takes into account the input and views of all stakeholders.

Smart destinations gain insights from available data, monitor progress toward strategic goals, and use it to make **strategic adjustments**.

Governance of Smart Destinations

- Smart destinations are networks of **interconnected stakeholders** with various relationships between them. Destination stakeholders collaborate in sharing and distributing data to develop the smart destination.
- Cross-sector and cross-level **collaboration** to capitalize on initiatives in other sectors and/or at a higher regional level.
- Collaboration of local authorities and the destination management organization (DMO).
- DMOs should transform from marketing organizations to **leading destination stewardship organizations** taking a leadership role by e**ncouraging** destination stakeholders to work together and facilitating collaboration.
- Their work should be based on a mandate that includes **stakeholder management**, **tourism product development**, and **knowledge sharing**.
- Smart DMOs should become **data hubs** and **data mining organizations**.



Performance indicators

Data Availability

The **availability** and **openness of data** is the most important prerequisite for **developing a comprehensive set of indicators**.

It would also be useful to integrate tourism data with data from other sectors (e.g., transport, cultural heritage).

Tourism Statistics

Needs to be **improved** from basic statistics on travel and overnight stays to data on the social, environmental, and economic impacts of tourism.

A new set of indicators should focus on the **measurement of the quality** of the tourism experience, the quality of life and well-being of residents, and business performance, carrying capacity management, and resource use and environmental impacts.
(Such indicators are currently being developed as part of the EU Tourism Dashboard initiative)

Performance indicators and communicating **immediately** with all stakeholders are **critical**.
Sharing KPIs helps maintain **stakeholder engagement**.

What approaches and methods do you see for engaging stakeholders in tourism development?

Stakeholder processes have to be **open to everyone**, all stakeholder groups have to be **included** - different ways to approach and include their views.

Example Vienna

The Vienna Tourist Board has established **discussion forums** for information sharing, reflection, and strategy development at various levels. Participation in these facilitated dialogues is open to anyone wishing to work on fulfilling the vision.

The VTB's *Shaping* and the *B2B Services Website* are the central **destination management communication platforms** which allow to share information and give stakeholders the possibility to make suggestions.

Surveys of visitors and Viennese residents give regular indicators of sentiment and provide information on specific requirements and issues. Important customer touch points are specifically analysed to continuously improve offerings and services

SMART TOURISM DESTINATIONS

Why partners and people are key in the management of a Smart Tourism Destination

Dolores Ordóñez
Director
AnySolution

Launching Meet Up!
Brussels, 19 – 20 September 2022

ANYSOLUTION

The importance of the ecosystem

The aim: increase the Tourism experience

- People at the center
- Skills
- Becoming a Smart Tourism Destination as a journey

SMART TOURISM DESTINATIONS

Skills & talent

- Ecosystem Management
- High skills in the whole Tourism value chain
- Attraction of talent: for the destination, as new Business model

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Be prepared to become Smart

- What does it mean to be Smart?
- Who will be involved?
- Which are the aims?
- Which are the pains?

SMART TOURISM DESTINATIONS

SMART TOURISM DESTINATIONS

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Thank you!

SMART TOURISM DESTINATIONS

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pwc

carsa

UNIVERSITAS MALACITANA

European Commission