

# Get inspired and pick up new tools: innovative technologies and smart solutions for tourism

17<sup>th</sup> November 2022



*Pillar 2 webinar: Data collection, management and technological solutions*



intellera  
consulting

pwc

CARSA



**Experts:**  
Mirko Lalli  
Dario Bertocchi

# Agenda – 17 November 2022



11:30 – 11:35 **Welcome and Objectives**

Costanza Bersani

*Project Manager, Intellera Consulting*

11:35 – 12:00 **How to be a data driven destination**  
*All about data! Sources, collection and values.*

Mirko Lalli

*Data Appeal Company, Italy*



12:00 – 12:15 **Data management: From Excel to dashboards and observatories**

Dario Bertocchi

*University of Udine &  
University of Ca' Foscari, Italy*

12:15 – 12:25 **Q&A session**

12:25 – 12:30 **Next steps**

Costanza Bersani

*Project Manager, Intellera Consulting*



**Note: To ask questions for the Q&A session, please use the button:**

Ask a question

**I. Write question!**  
**II. Write your name and submit!**



# 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**.



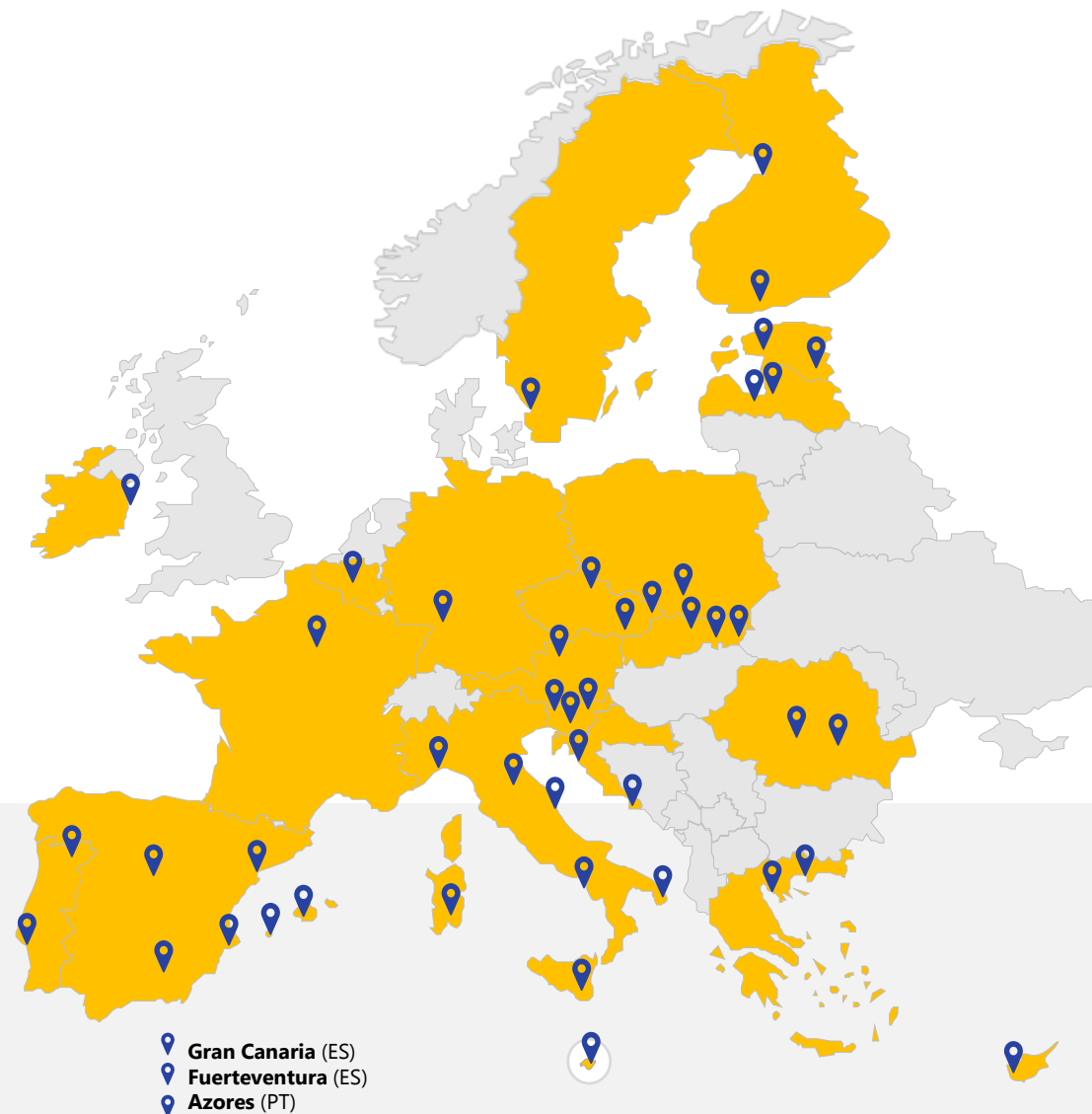
The project aims to **support EU destinations implementing data-driven approaches to make tourism more sustainable and accessible**.



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**.



# The five pillars of a Smart Tourism approach

The five pillars of a Smart Tourism approach:



Find the recording of **Webinar 1** and the material shared online on our website

Recordings and materials for **Webinars 2, 3, 4, and 5** will be available on the Smart Tourism Destinations Project website soon after the event

# Welcome to today's webinar

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This is the Project's **second webinar dedicated to the five pillars** of the Smart Tourism Destinations Toolkit: all webinars aim to explore subtopics, share insights and latest trends, and learn from the experts .



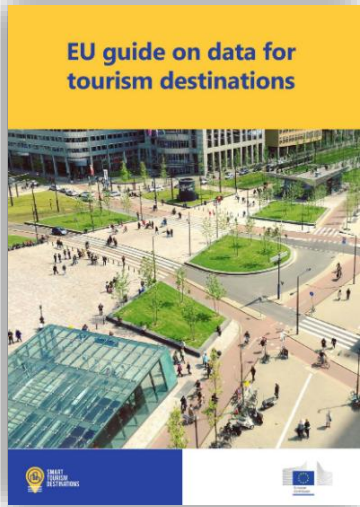
This second webinar supports **knowledge sharing in selected subtopics of Pillar 2: “Data management and technological solutions”**, providing examples linked to different maturity stages of Smart Tourism Destinations.



The Smart Tourism **webinars** pursue the aim of providing destinations with a strong theoretical background on the Smart Tourism Pillars while also giving concrete tips and examples. Other activities, like **workshops** and **peer-to-peer learning sessions** will help destinations to work together with the experts on the topics introduced during the webinars and share their own experience so to **create a data-driven community active in the Tourism sector in the European Union**.



# Resources from the project



## EU Guide on data for tourism destinations

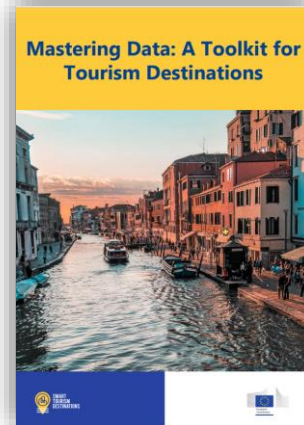
This guide on data for tourism destinations might therefore result useful for any type of destination willing to improve the way they collect and use data for tourism purposes and hopefully become inspirational for those cities, regions, or countries, eager to start their journey towards becoming smart tourism destinations.



## Study on mastering data for tourism by EU destinations

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.

**Available for download on the project website:**  
<https://smarttourismdestinations.eu/digital-library>



## Mastering Data: A Toolkit for Tourism Destinations

*Stay tuned!*  
*To be published soon!*



# How to be a data driven destination

*All about data! Sources, collection and values.*

Expert:

**Mirko Lalli**

Data Appeal Company, Italy



SMART  
TOURISM  
DESTINATIONS





## HOW TO BE A DATA-DRIVEN DESTINATION



# 27%

Only around 27% of the usable data we collect actually gets used. (Forrester)



# 74%

Entro il 2026 si registrerà un 74% di prenotazioni online, il cui 25% sarà da mobile. Fonte EUROMONITOR



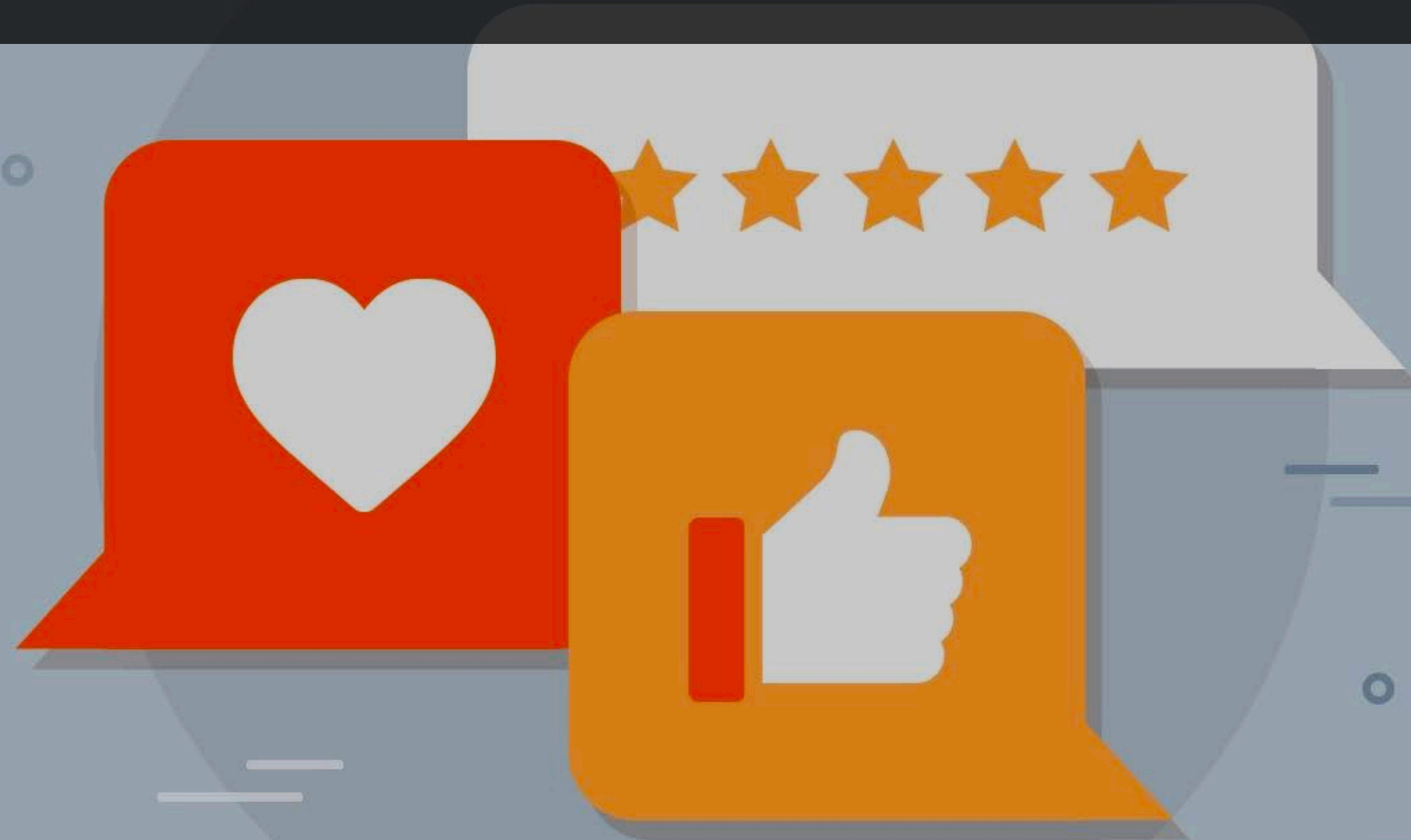


# THE DATA DILEMMA





**don't rely *only* on quantitative data...**





# Everything is “Tourism”





# Everything is measurable?





find a proxy for what is not



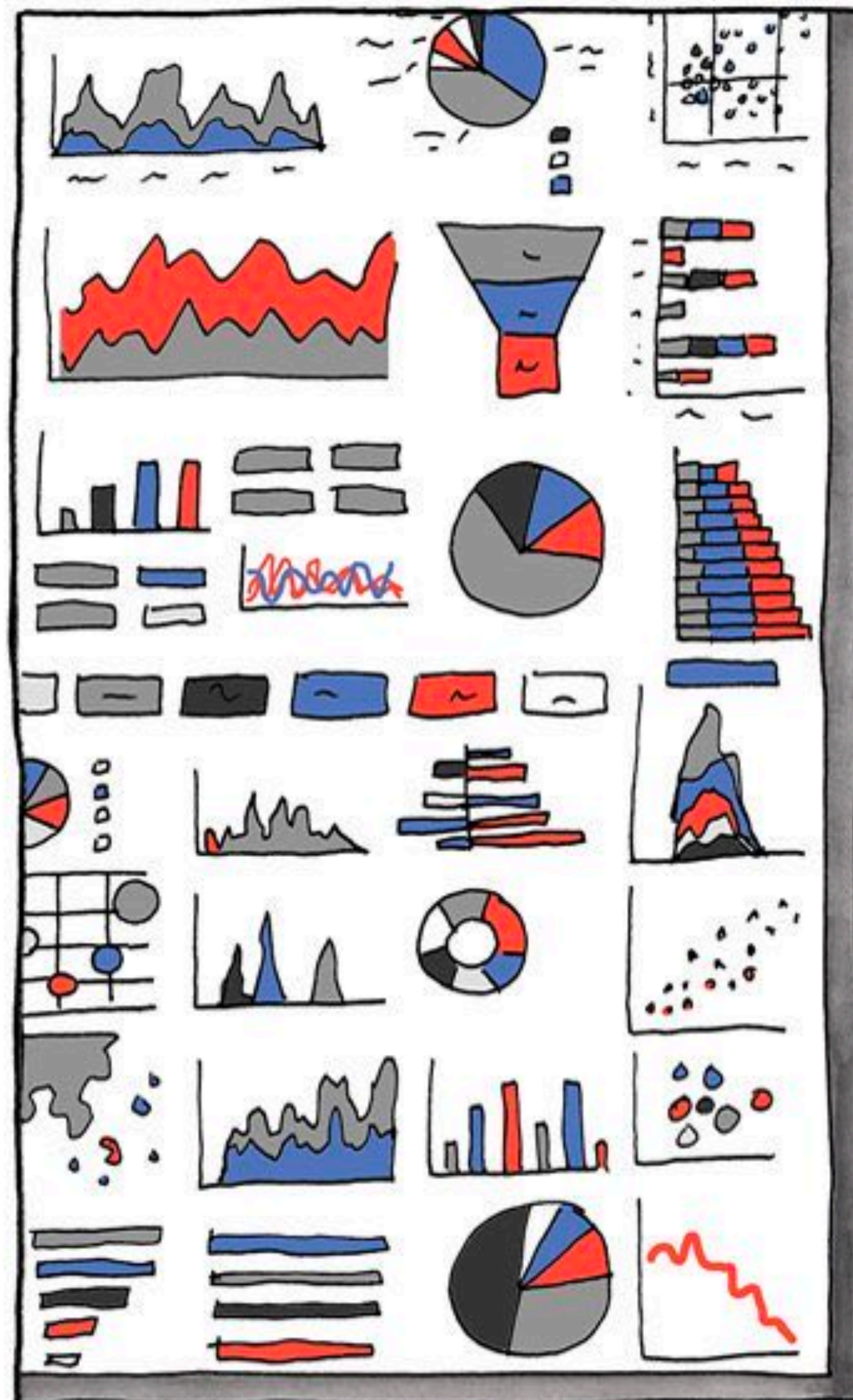
**Empower stakeholders through data**

Good Choice  
Bad Choice →



# SIMPLIFY





OUR NEW  
DASHBOARD  
HAS ALL OF  
THE DIFFERENT  
KPI'S WE CAN  
TRACK NOW.



WHAT'S  
THAT KPI  
TRENDING  
TO ZERO?



IT MEASURES  
HOW WELL WE  
UNDERSTAND  
THEM ALL.



TOM  
FISH  
BURNE



1. **BIG DATA IS BETTER THAN SMALL DATA.  
BUT SMALL DATA IS BETTER THAN NO-DATA;**
2. **EVERYTHING IS TOURISM (HOLISTIC APPROACH);**
3. **NOT EVERYTHING IS DIRECTLY MEASURABLE...**
4. **...BUT YOU CAN FIND A PROXY FOR WHAT IS NOT;**
5. **BE SIMPLE AND ACTIONABLE.**



# WHERE ARE THE AVAILABLE DATA COMING FROM?

*All about data! Sources, collection and values.*



# **TOURISM DESTINATION AND PUBLIC AUTHORITIES**

**PUBLIC ADMINISTRATIONS - EDUCATION INSTITUTIONS - RESEARCHERS -  
CULTURAL HERITAGE SITES**

## **PRIVATE SECTOR FROM THE TOURISM INDUSTRY**

**RENTAL SITES - SEARCH ENGINES - HOTEL GROUPS - RETAIL INDUSTRY -  
TRANSPORT INDUSTRY - IT & SOFTWARE COMPANIES**

## **PRIVATE SECTOR FROM OTHER INDUSTRIES**

**TELECOMMUNICATIONS COMPANIES - SOCIAL MEDIA**



# WHICH TYPES OF DATA ARE AVAILABLE FOR THE TOURISM SECTOR?



# User Generated Data

## PERCEPTION DATA

Reviews - posts - blog articles - surveys

## PHOTOGRAPHIC DATA

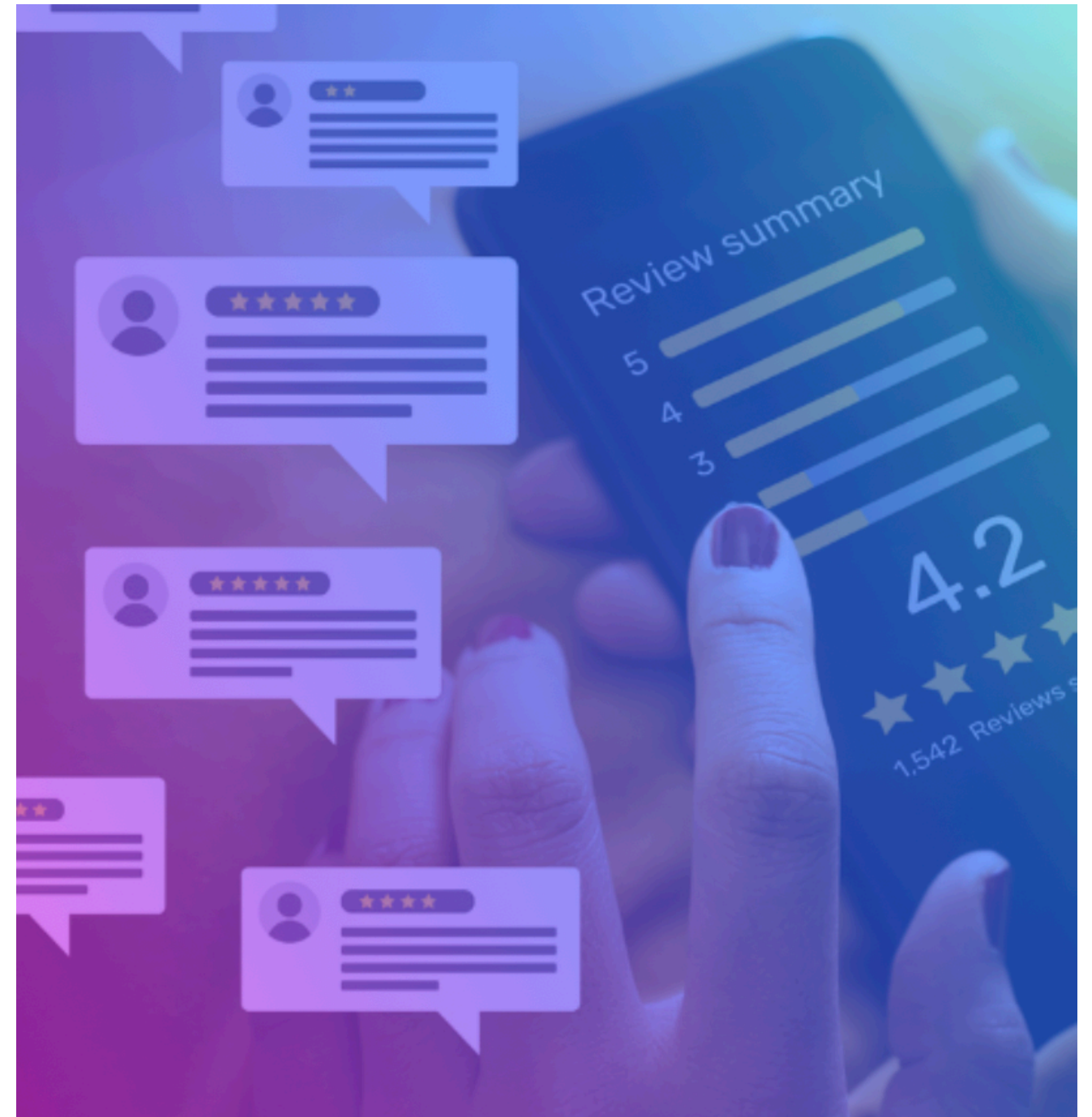
Providing locations - time - tags

## *WHAT CAN THEY PROVIDE?*

- Reputation infos
- Strengths & Weaknesses of the destination

## *WHAT CAN THEY BE USED FOR?*

- Intercept and predict tourist's choices and preferences & identify the strengths that attract visitors
- Improve interactions and engagement with the tourist
- Track the destinations's performance









# Transaction Data

**Web search and web page visiting**

**Online booking and purchasing**

**Consumer credit cards transactions**

## ***WHAT CAN THEY PROVIDE?***

- Spending trends
- Markets and spending categories

## ***WHAT CAN THEY BE USED FOR?***

- Gather trends & analyze targets





# *FIN* TRAVEL-TECH

Gestione di pagamenti, finanziamenti a breve termine e assicurazioni:  
è l'epoca del boom di nuovi modelli di business fintech per il turismo





# Device Data

**Devices for tracking of movements:** GPS data, mobile roaming data, Bluetooth data, RFID data, WIFI data and framework in various apps

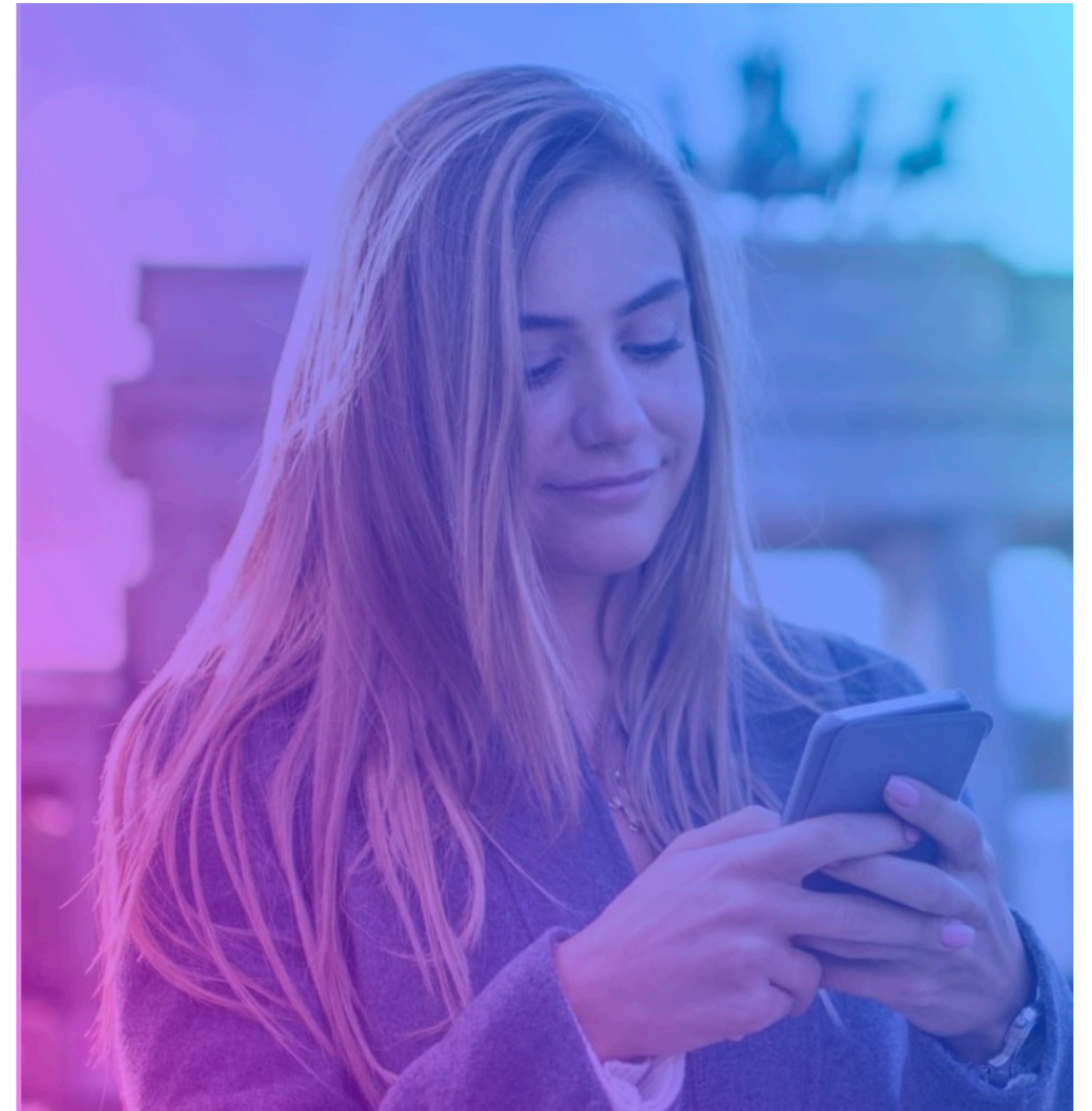
**Smart city devices:** data from traffic sensors, air quality, public transportation, internet access)

## ***WHAT CAN THEY PROVIDE?***

Informations on tourists behaviors & movements

## ***WHAT CAN THEY BE USED FOR?***

- Develop tourism services increasingly personalized
- Direct resources on most popular spots





# Private businesses datasets

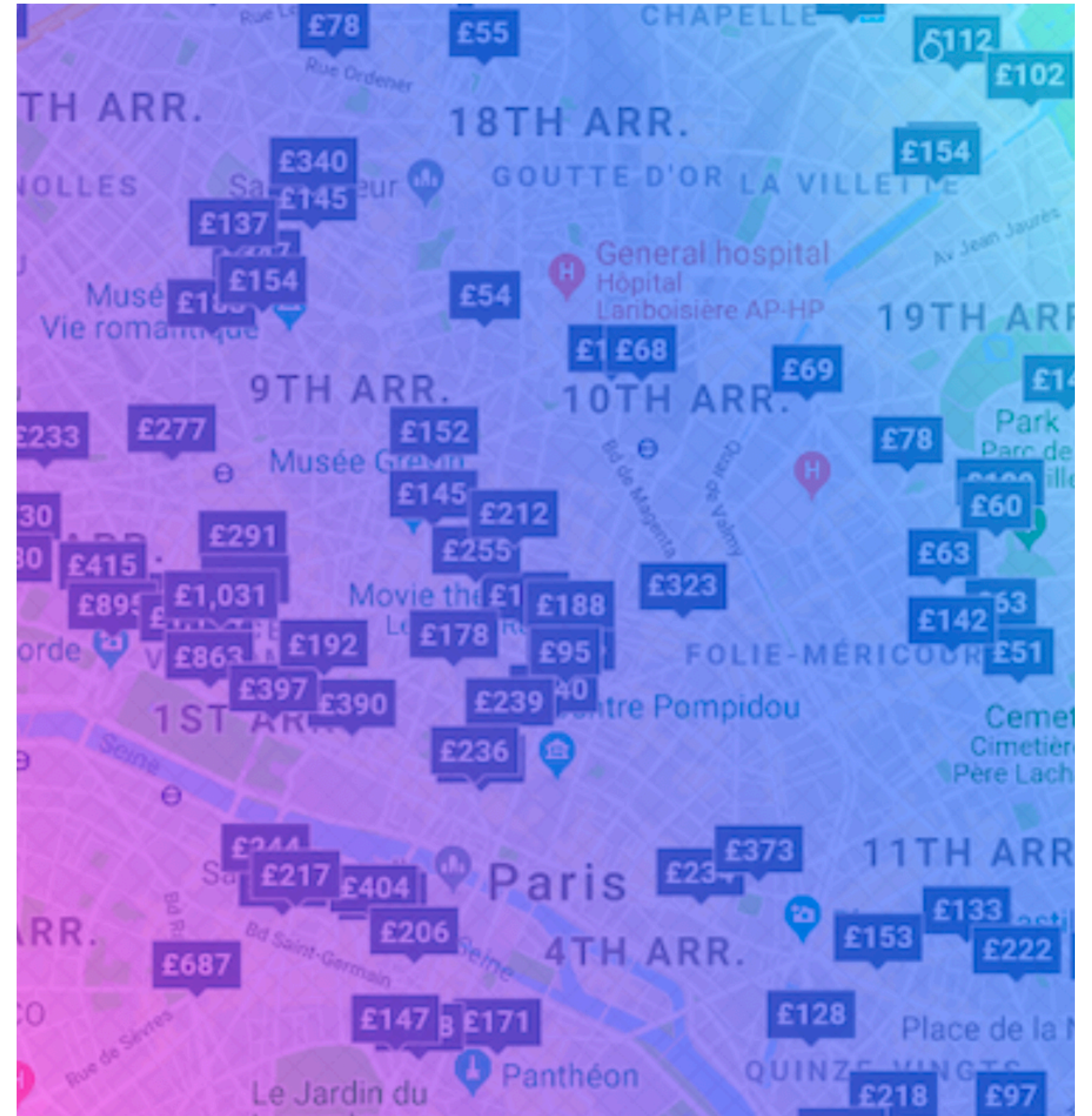
Data on the number of passengers held by airlines, data on vacancies of hotels, data on restaurants reservations, events

## ***WHAT CAN THEY PROVIDE?***

- Searches & Bookings
- Rates & OTA Saturation
- Arrivals & Cancellations
- Markets and traveller typologies

## ***WHAT CAN THEY BE USED FOR?***

- Forecast demand & tourism flows
- Analyze target markets





# Official statistics

Datasets published by public authorities

## ***WHAT CAN THEY PROVIDE?***

- Tourists' flows
- Historical Data

## ***WHAT CAN THEY BE USED FOR?***

- Ex-post assessments
- Enhance transparency and accountability





# TOGETHER THEY CAN BE USED TO

- Obtain valuable data and insights to define marketing strategies and expand the destinations' market share
- Conduct market analyses and inform decision-making
- Make real-time decisions
- Improve the efficiency and competitiveness of the tourism industry
- Increase destination's sustainability and accessibility



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

Peter Drucker



# Data management: From excel files to dashboard and observatories

Expert:

**Dario Bertocchi**

**University of Udine &  
University of Ca' Foscari**

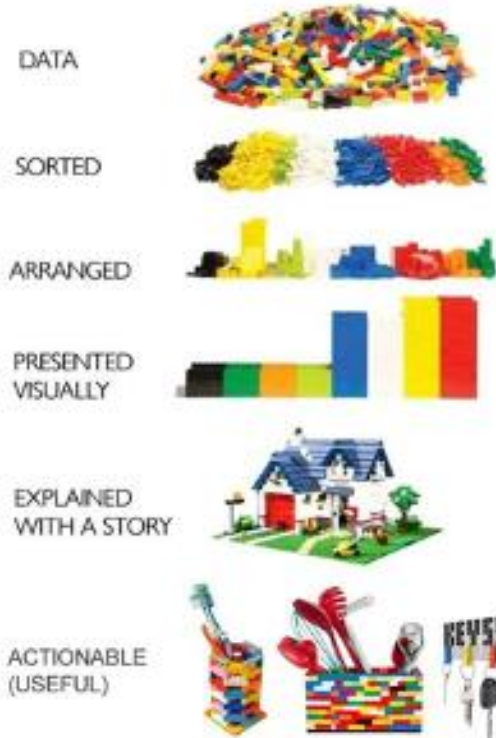




# Data management: From excel to dashboard and observatories.

## The Reality of Preparing and Connecting Data Across the Enterprise

What we are told...



What we actually have...





# Even Microsoft Excel could be smart!



## DATA ANALYSIS

- Descriptive and quantitative analysis
- Graphs and simple visualization
- Spatial visualization
- Don't need of high skill knowledge

## INPUT FILE

There are several visualization tools that work easily with csv or excel files as input. You don't need a server or a data lake to create exploratory analysis but you can merge all inside a tool (and a dashboards)

## DATA MANAGEMENT

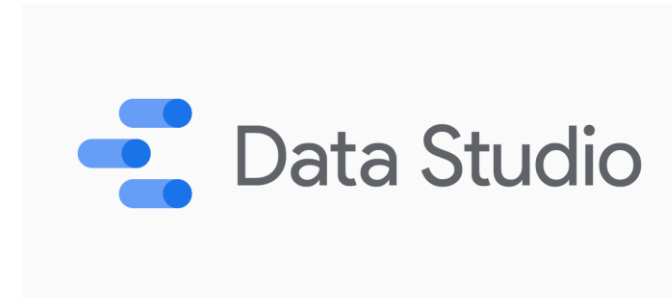
Try to identify common keys to facilitate data integration. That could be on:

- **Geographical levels (administrative unit, POI)**
- **Date**
- **Time**





# Visualisation tools





# Data integration: Dashboards, but...

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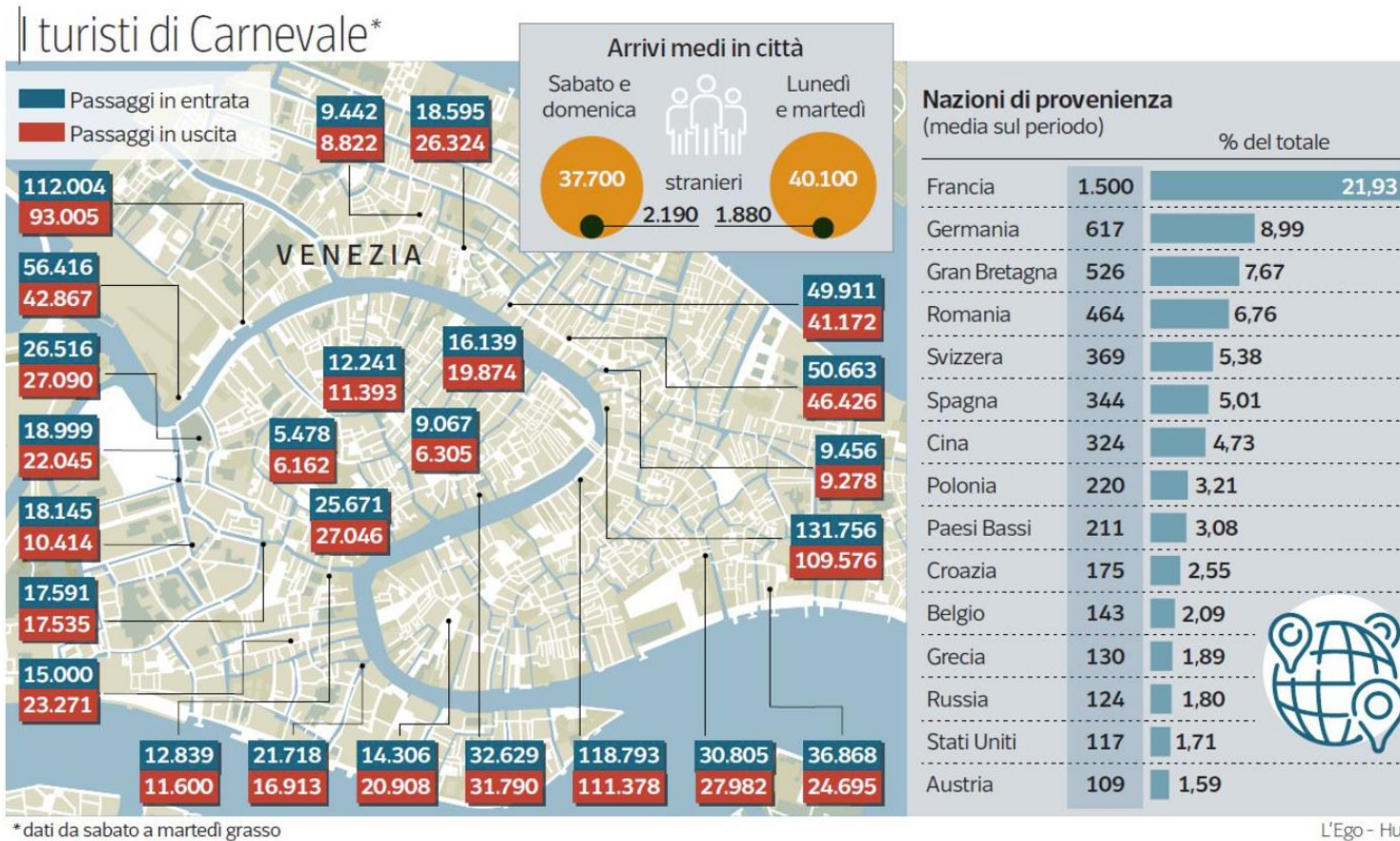




# Smart marketing example

## Destination: Venice Smart Control Room

Describe ("hindsight"): what is happening?





# Smart marketing example

## Destination: Venice Smart Control Room

### SCOPE

- Monitoring tourism flows and detect tourism overcapacities (e.g. congestion, public transportation)

### TYPE OF DATA

- > 40 Cameras (real time people counting and in/out)
- Telco (near real time presence and clustering)
- Weather conditions (e.g. high tide)
- Social Pulse (Twitter)

### DATA MANAGEMENT

- Using APIs and web server
- Separate dashboards
- Different geographical level (between telco/camera and official statistical data)
- Still missing a real data integration (scope: prediction)
- No sharing of data
- Tool for monitoring purposes

Describe ("hindsight"): what is happening?





# Smart management example

## Destination: Veneto Tourism Observatory

Diagnose ("hindsight"): why are things happening?

Cluster

RICETTIVO CITTÀ D'ARTE ▼

Periodo

15/10/2022 - 15/02/2023

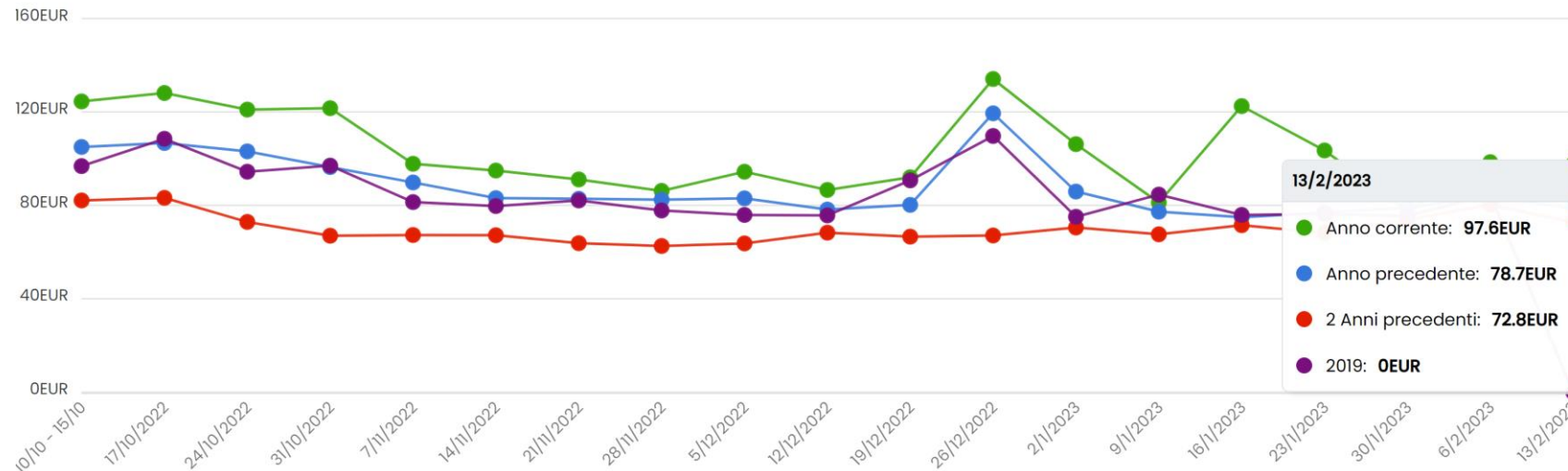
Anno precedente ☒

2 Anni precedenti ☒

2019 ☒

Nazioni

Canali





# Smart management example

## Destination: Veneto Tourism Observatory

### SCOPE

- Having different destination insights on behavior and type of destination trends

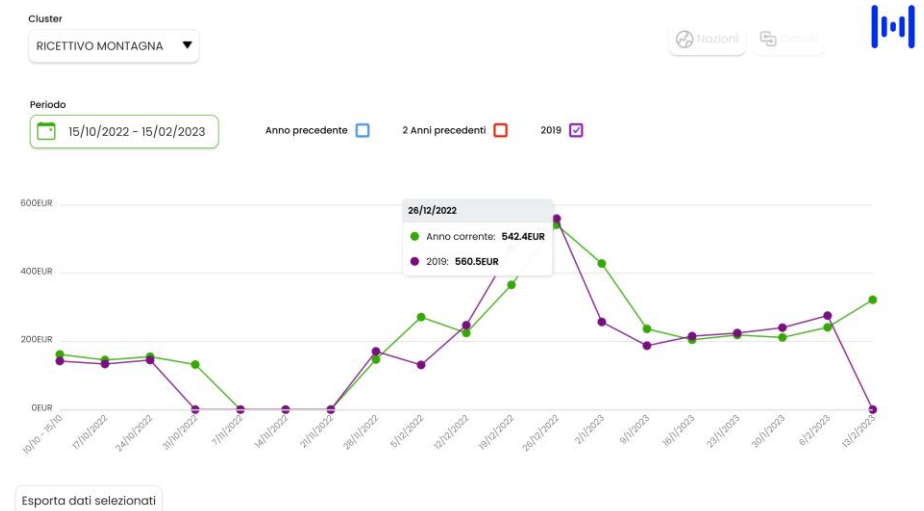
### TYPE OF DATA

- Official statistical data
- User-Generated contents data (visitor experience and quality of the visit)
- Weather conditions (e.g. high tide)

### DATA MANAGEMENT

- Using APIs and web server
- Separate dashboards
- Same geographical level (destinations and DMOs)
- Monthly report updates (pdf)
- Open data
- Tool for monitoring and strategy purposes

Diagnose (“hindsight”): why are things happening?

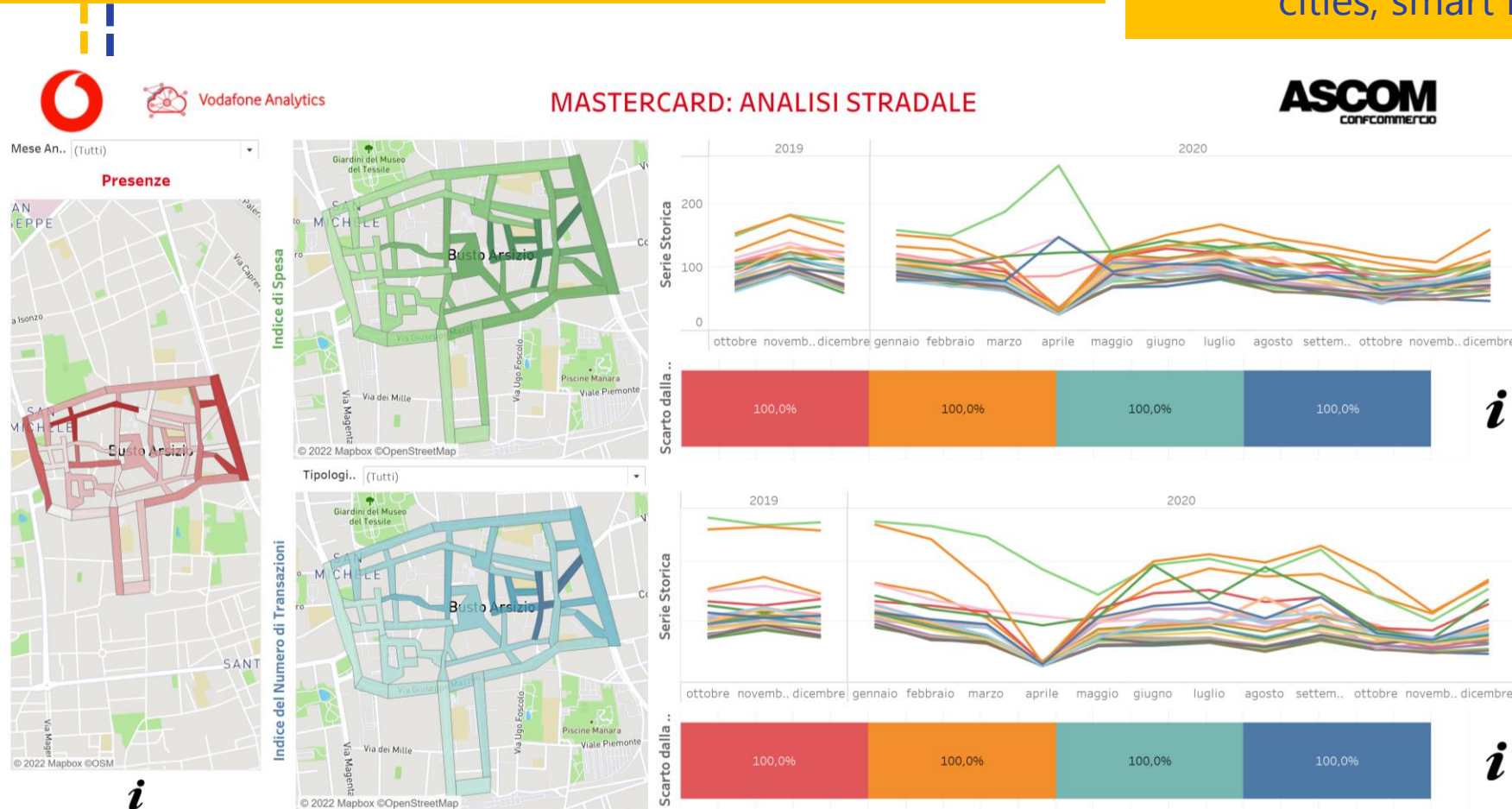




# Smart stewardship example

**Destination: Busto Arsizio (Milan) Business Association**

Predict and instruct to steer ("foresight"):  
Real-time steering of visitor flows, "Smart cities, smart regions", AI, ML





# Smart stewardship example

**Destination: Busto Arsizio (Milan) Business Association**

## SCOPE

- Understanding behavioral expenditure of visitors and tourists

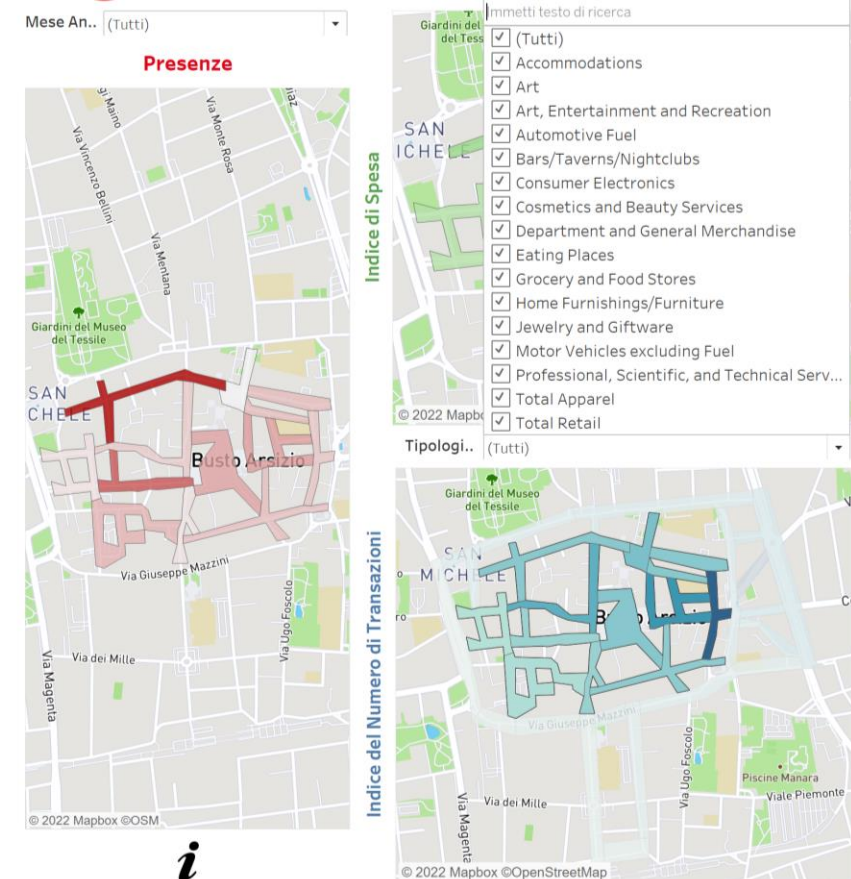
## TYPE OF DATA

- Telco data to monitor people presence (clustering of users – per day and time slots)
- Expenditure behavior (Mastercard daily indexes on a baseline)

## DATA MANAGEMENT

- Data integration inside a dashboard
- No real time but advance analysis on recalibration of the expenditure based on people presence
- Tool for monitoring and new strategies

Predict and instruct to steer (“foresight”):  
Real-time steering of visitor flows, “Smart cities, smart regions”, AI, ML





# Q&A

To ask questions, please click on the button in the bottom right corner of your screen.

● Ask a question

Write your question.  
Then write your name to send it off.

10 minutes  
12:15 – 12:25





# Next steps



## **Pillar 3 webinar: Human Capital and Skills**

The future of work: new skills and profiles for Smart Tourism and how to get ready

20/01/2023

11:30 – 12:30



## **Pillar 4 webinar: Knowledge transfer**

Opportunities and tools for data and knowledge sharing: latest trends and possible solutions in Smart Tourism

10/02/2023

11:30 – 12:30



## **Pillar 5 webinar: Ecosystem management**

Data and tourism ecosystems: from mapping to managing

11/04/2023

11:30 – 12:30

**Link to the webinars:** <https://smarttourismdestinations.eu/webinars/>



## **Pillar 1 & 2 workshop Only for selected Tourism Destinations!**

Develop your strategy and prioritise specific data-driven actions for your Smart Tourism Destination.

13/12/2022

09:30 – 12:15

