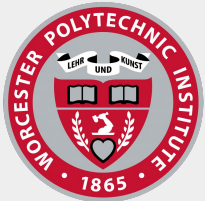


The Sustainable Future of Tourism Post COVID-19 in Venice



WPI

SMARTDEST



CITIES AS MOBILITY HUBS:
TACKLING SOCIAL EXCLUSION THROUGH
'SMART' CITIZEN ENGAGEMENT



Presented By: Madison Di Vico, Martin McCormack, Lucas Micheels, Lauren Revene, and Joseph Sorrenti

Advisors:
Professor Fabio Carrera
Professor Jennifer deWinter

Through this project our team contributed to the development of policies for sustainable tourism in Venice.



SmartDest: Horizon 2020 Research Project

SMARTDEST



CITIES AS MOBILITY HUBS:
TACKLING SOCIAL EXCLUSION THROUGH
'SMART' CITIZEN ENGAGEMENT

- Three year project
- 8 case study cities
- SerenDPT is in charge of the Venice case study

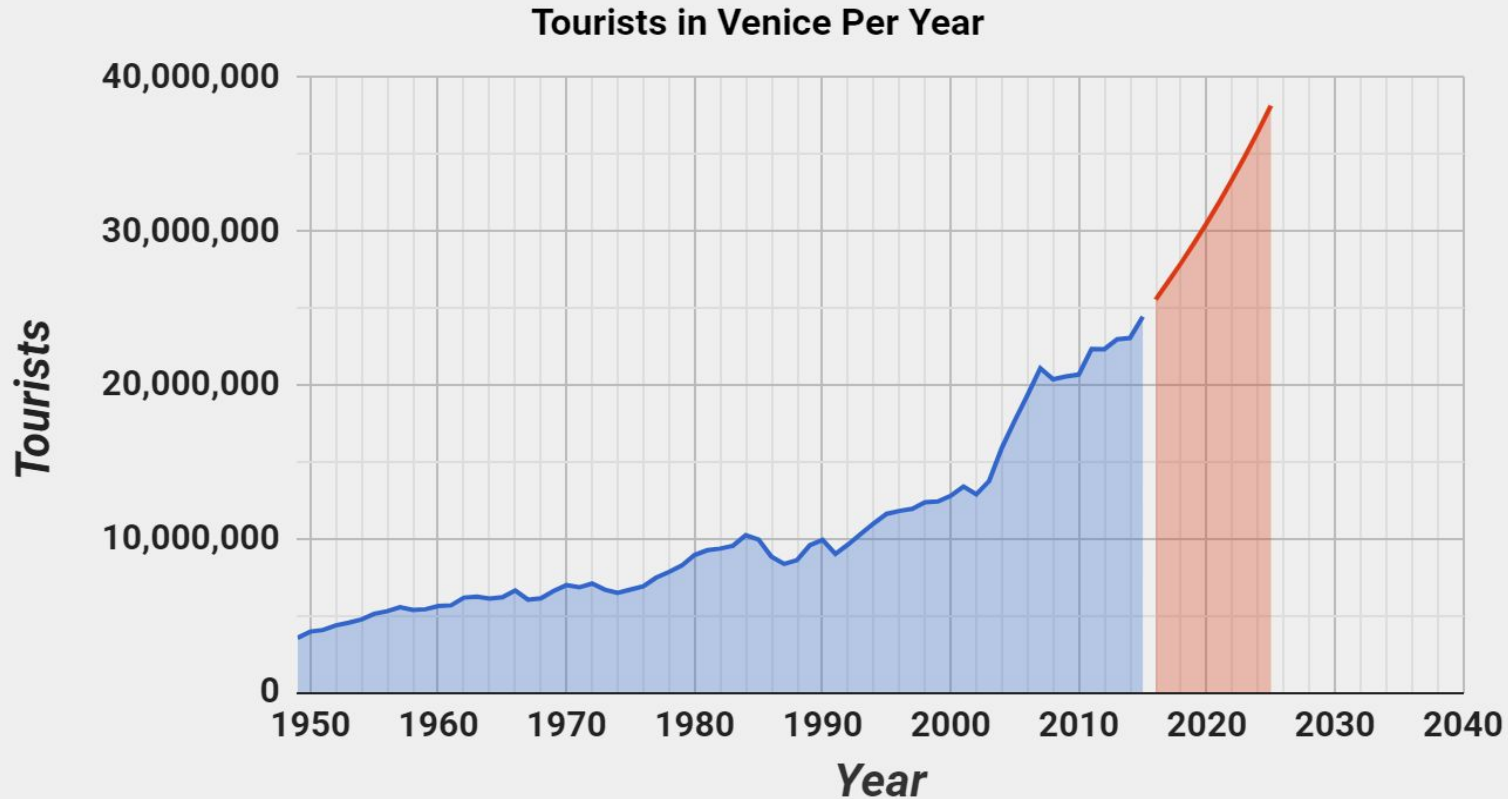




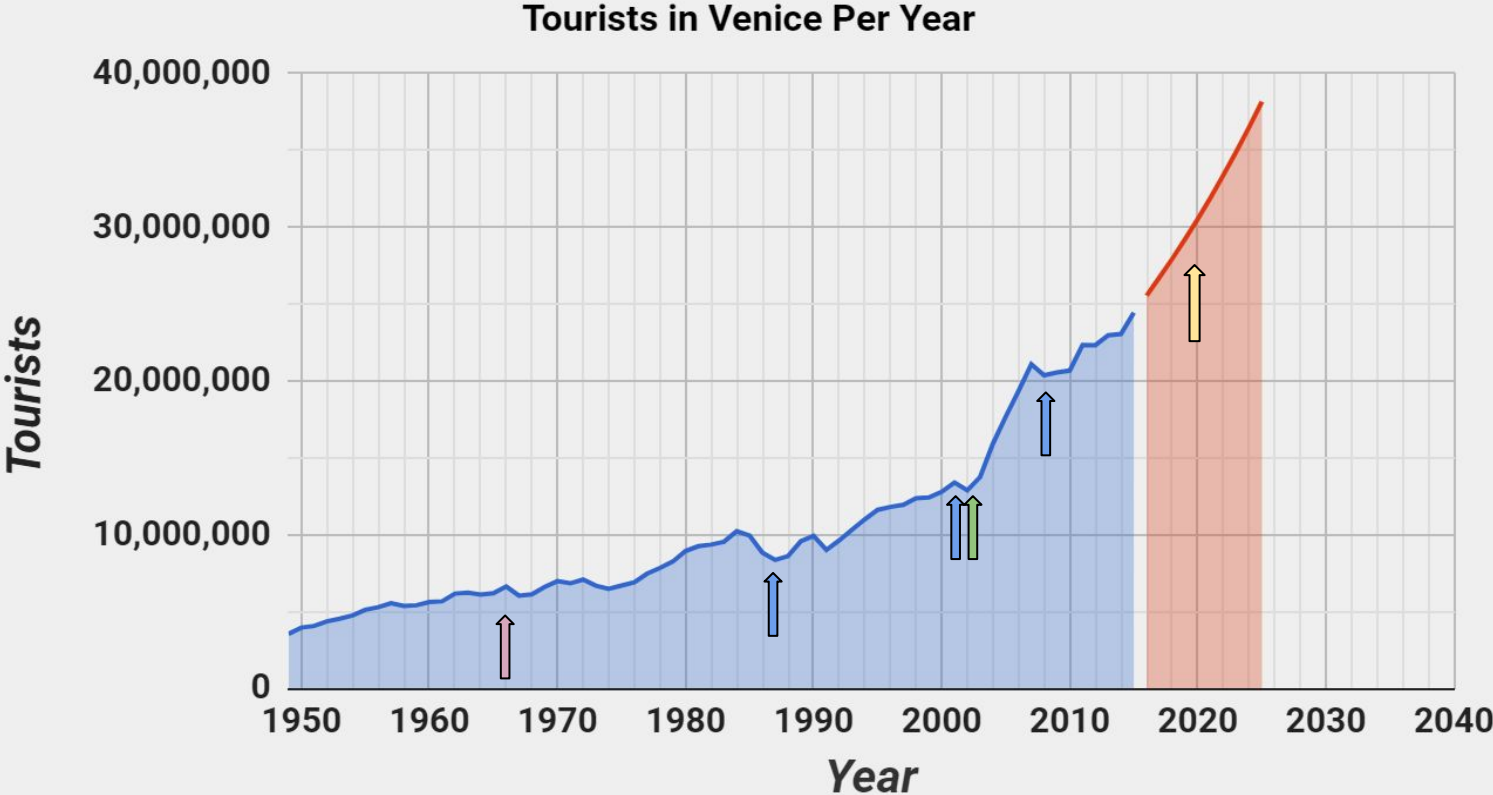
SmartDest's Original Plan Was to Mitigate Over-Tourism

Pre- COVID Goal:
Mitigate the effects of
overtourism through new
policies

Venice was Chosen as One of The 8 Case Studies Due to The Exponential Growth in Tourism

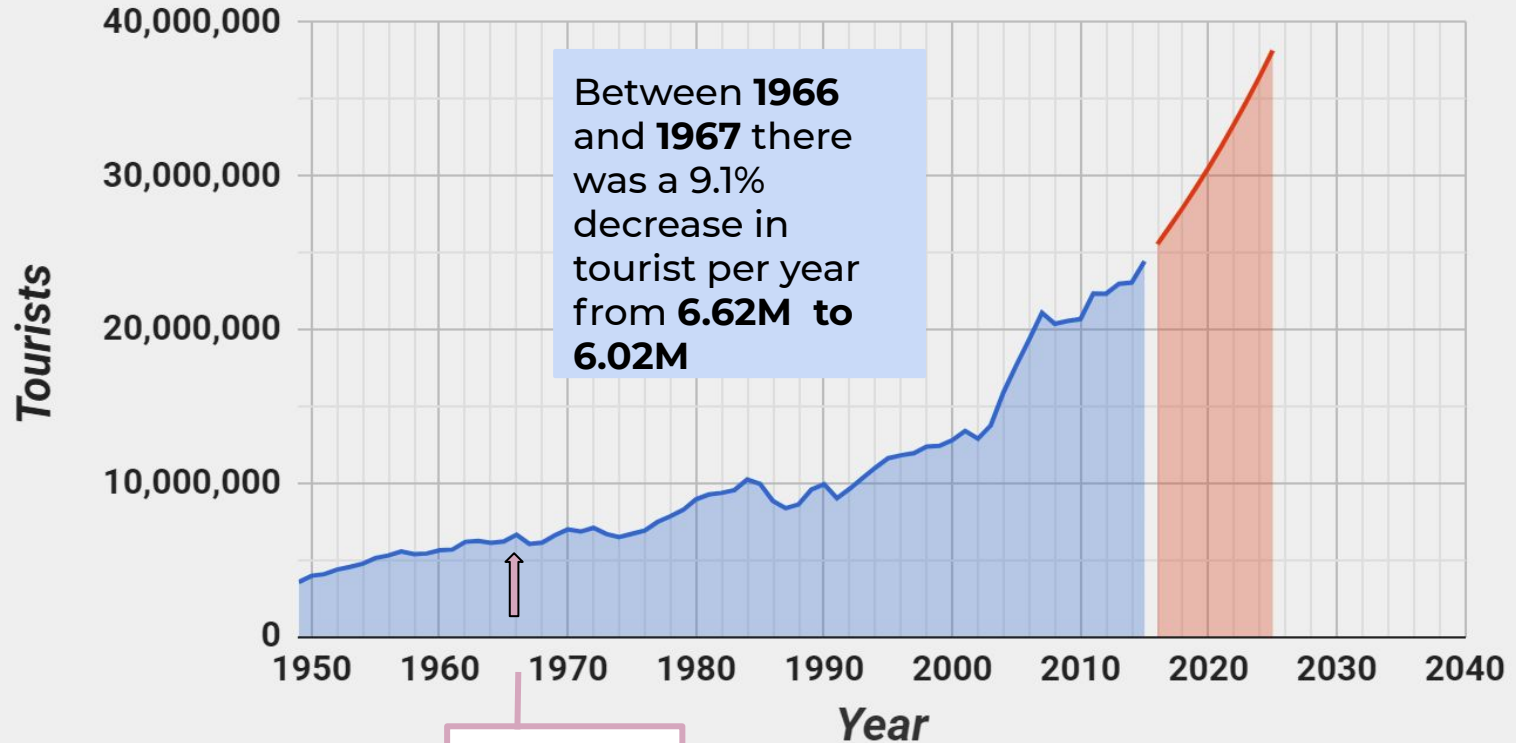


Events Affect Tourism in Venice



Flooding and Other Natural Disasters Affect Tourism in Venice

Tourists in Venice Per Year

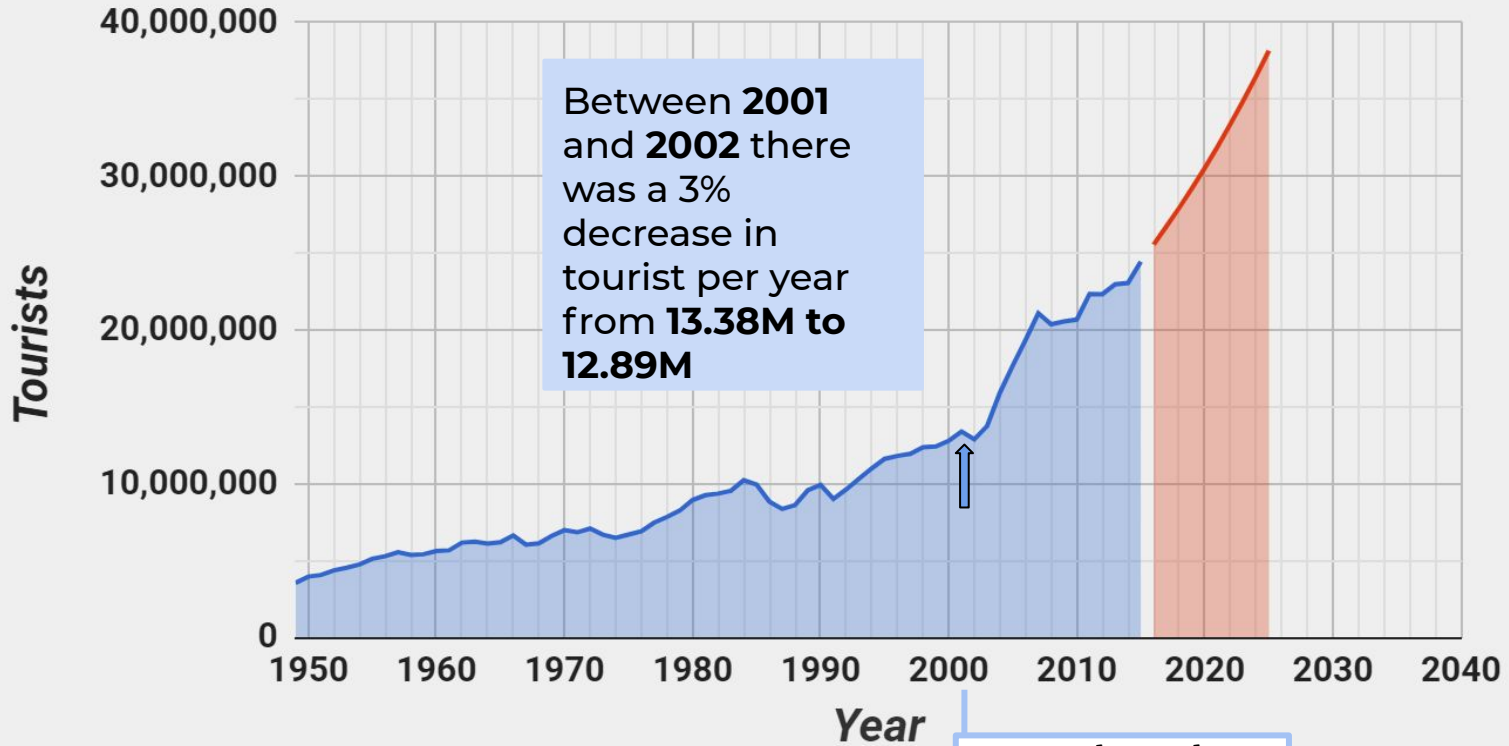


The Biggest Flood Ever to Hit Venice

Nov 4th, 1966

International Events Affect Tourism in Venice

Tourists in Venice Per Year



Between **2001** and **2002** there was a 3% decrease in tourist per year from **13.38M** to **12.89M**

Attack on The World Trade Center
September 11th, 2001

New Policies and Laws Affect Tourism in Venice

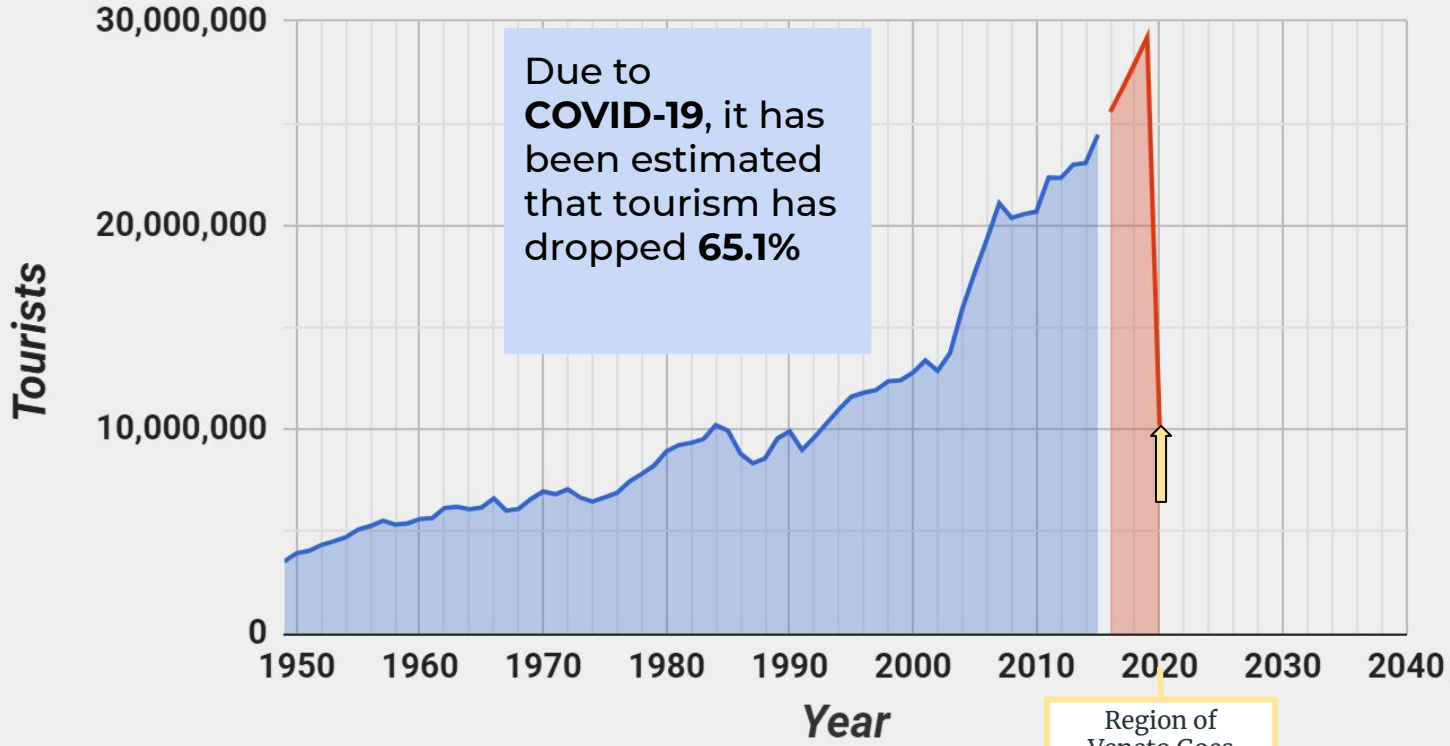
Tourists in Venice Per Year



Law L. 33/2002
Relaxes Rental
Regulation
2002

COVID-19 Affects Tourism in Venice

Tourists in Venice Per Year





The COVID-19 Pandemic Transformed The SmartDest Project



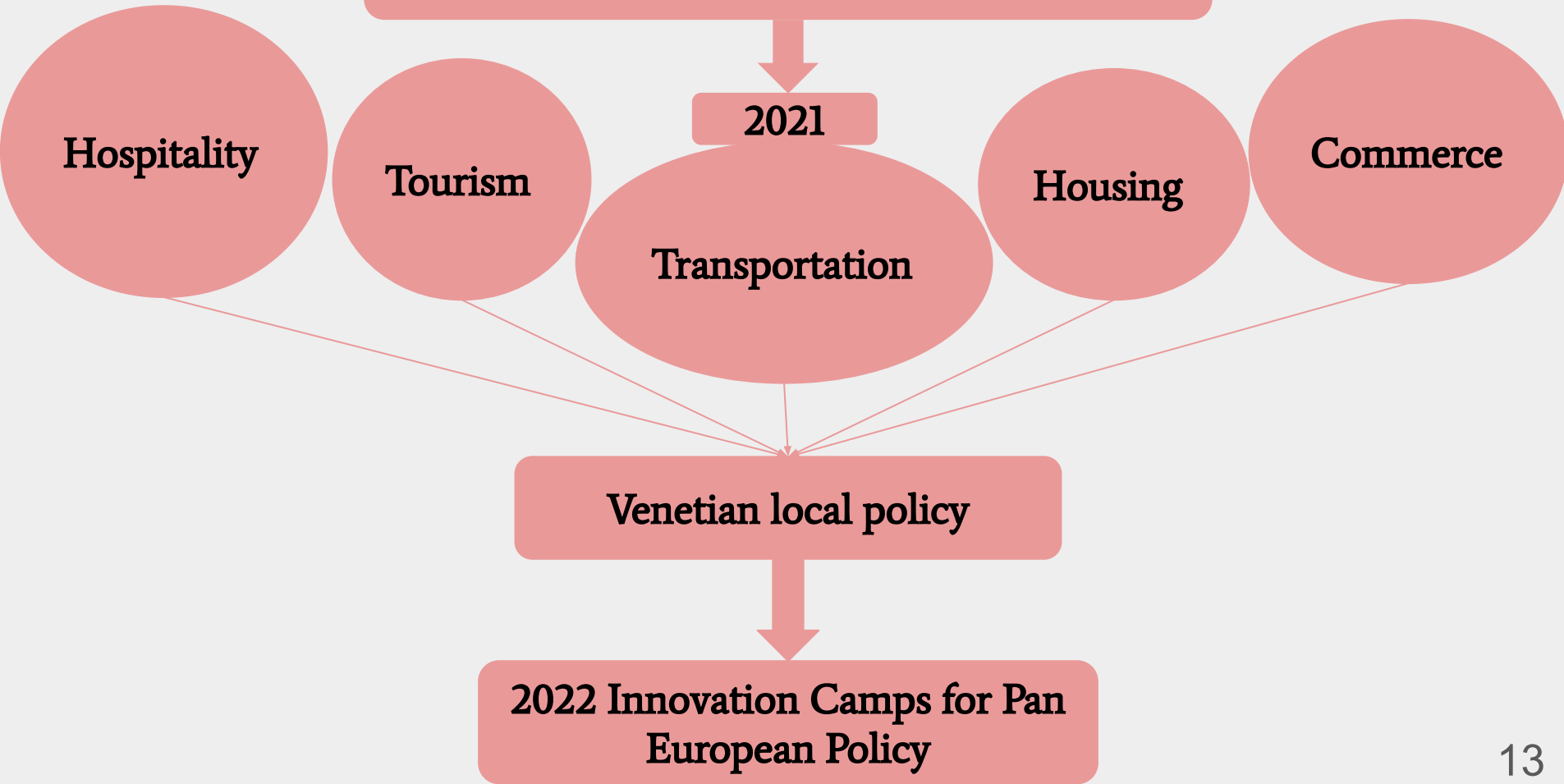
SmartDest's Plan for Future Tourism

Pre- COVID Goal:
Mitigate the effects of
overtourism through new
policies

Post-COVID Goal:
To **monitor** the return of
tourism and **develop policies** to
achieve sustainability

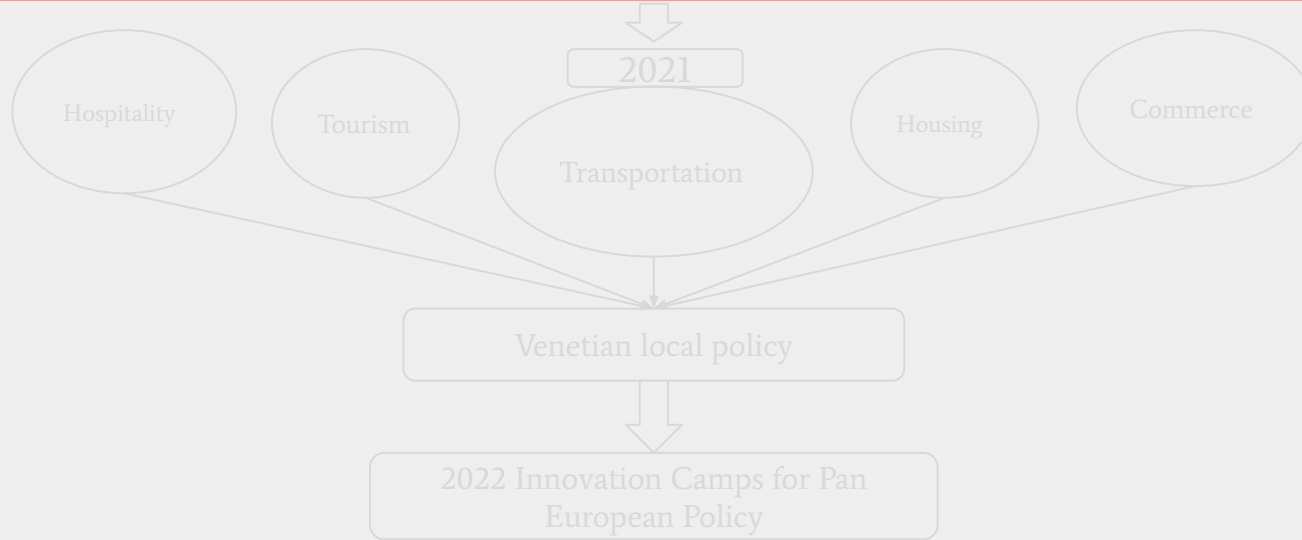


Monitoring the Return of Tourism 2021-2022





Monitoring the Return of Tourism 2021-2022



A Real Time Dashboard can Monitor Tourism

- WPI Created the Venice Dashboard on their 25th anniversary
- Provide real-time tourism data in the city
 - Displayed in widgets
- The primary user: tourists



A Widget has the Ability to Displays Live Data

- Individually functioning tool that gathers, displays, and stores real-time data
- Data is pulled from various websites

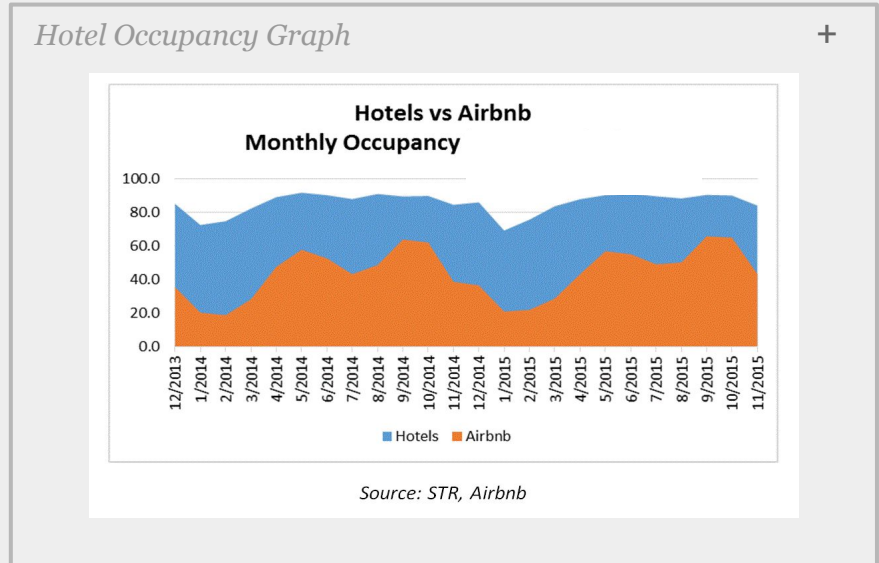
The screenshot shows a widget titled "TOURIST ARRIVALS (Est.)" with a hamburger menu icon in the top right. The widget contains a table with three columns: "Tourist Arrivals", "Overnights", and "Day Trippers". The rows represent different transport modes: Air VCE+TSF, Train, Car, Coach, Bus, Cruise, and Boat. The "Air VCE+TSF" and "Cruise" rows show the number "0" in their respective "Tourist Arrivals" cells. The "TOTAL" row is highlighted in green. Below the table is a purple bar with the text "TOURIST ARRIVALS TODAY".

	Tourist Arrivals	Overnights	Day Trippers
Air VCE+TSF	0	0	0
Train			
Car			
Coach			
Bus			
Cruise	0	0	0
Boat			
TOTAL			

TOURIST ARRIVALS TODAY

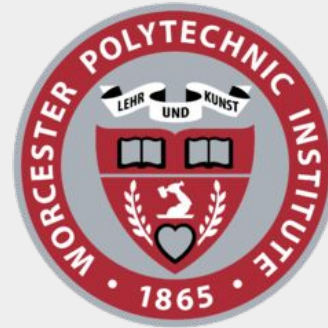
Updates Made to the New Venice Dashboard Widgets

- All of the code is written using Javascript
- Stores and displays real time data
- Each widget is able to be added or removed from the users customizable homepage
- Each widget will still be adjustable in size and location on the screen



The New Dashboard will Assist Researchers Working Towards Sustainable Tourism

- The people working on the SmartDest Project
- Future WPI students
- City Officials
- Stakeholders



SMARTDEST



The New Venice Dashboard can Store and Display Real Time Data

The Venice Dashboard

Live Updates from Venice, Italy

Hospitality

Transportation

Tourists and Resident Data

Finance

Environment and Weather

Other...

Help

Search

Welcome to The Venice Dashboard, where you can get up to date information about the historical city of Venice, Italy! Customize your dashboard by scrolling through the list of widgets and clicking the + button to add to your dashboard!

November 18th, 2020

11:07 Am

50°F

20

The Venice Dashboard

Live Updates from Venice, Italy

Hospitality

Transportation

Tourists and Resident Data

Finance

Environment and Weather

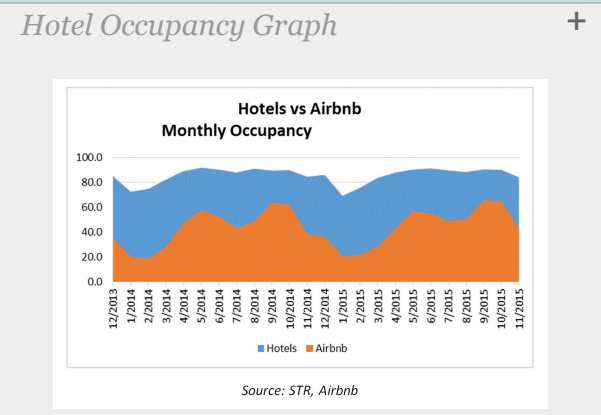
Other...

Help

Search

- Hotel
- Airbnb
- Real Estate

Interactive tabs that can bring you to organized pages of widgets



Hotel Occupancy +

Category	Free beds today	Free beds tomorrow
★	0	0
★★	0	0
★★★	0	0
★★★★	0	0
★★★★★	0	0
Unclassified	0	0
Hostels		
TOTAL	0	0
33,000 OVERNIGHTS		100% FULL
Max Available Beds : 33,000		

Hotel Information

Welcome to The Venice Dashboard, where you can get up to date information about the historical city of Venice, Italy! Customize your dashboard by scrolling through the list of widgets and clicking the + button to add to your dashboard

The Venice Dashboard

Live Updates from Venice, Italy

Hospitality

Transportation

Tourists and Resident Data

Finance

Environment and Weather

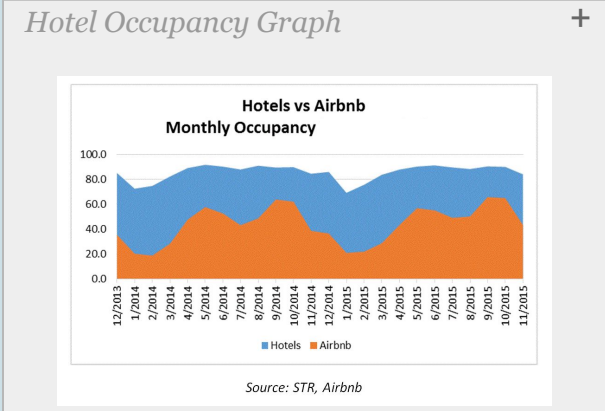
Other...

Help

Search

- Hotel
- Airbnb
- Real Estate

The + sign is used to add widgets to the homepage of the customizable dashboard



A table titled "Hotel Occupancy" showing the number of free beds today and tomorrow for different hotel categories. The table includes a "TOTAL" row and a summary bar at the bottom.

Category	Free beds today	Free beds tomorrow
★	0	0
★★	0	0
★★★	0	0
★★★★	0	0
★★★★★	0	0
Unclassified	0	0
Hostels		
TOTAL	0	0
33,000 OVERNIGHTS 100% FULL		
Max Available Beds : 33,000		

Hotel Information

Welcome to The Venice Dashboard, where you can get up to date information about the historical city of Venice, Italy! Customize your dashboard by scrolling through the list of widgets and clicking the + button to add to your dashboard

The Venice Dashboard

Live Updates from Venice, Italy

Hospitality

Transportation

Tourists and Resident Data

Finance

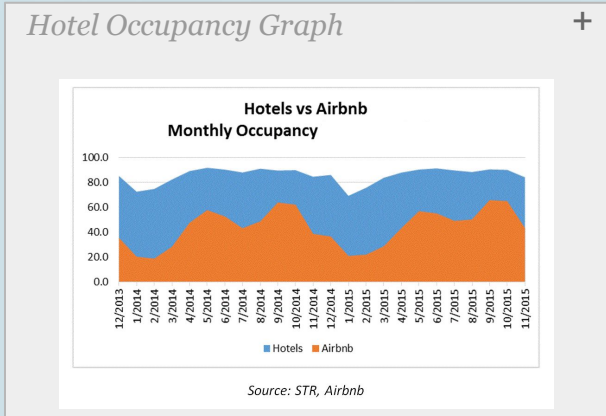
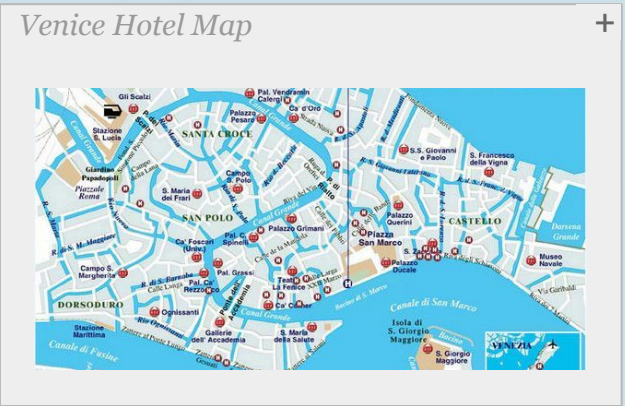
Environment and Weather

Other...

Help

Search

Clicking on "The Venice Dashboard" Brings The User to Their customizable dashboard



Hotel Occupancy +

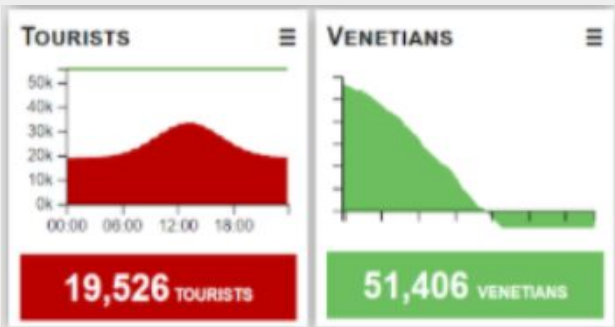
Category	Free beds today	Free beds tomorrow
★	0	0
★★	0	0
★★★	0	0
★★★★	0	0
★★★★★	0	0
Unclassified	0	0
Hostels		
TOTAL	0	0
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Hotel Information

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November 18th, 2020
11:07 Am
50°F

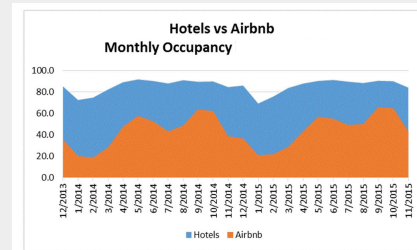
Tourist and Resident Population



Train Arrivals and Departures

Arrival Time	Provenance	Track	PAX
22:04	CASTELFRANCO	18	21
21:56	TREVISO	12	26
21:55	PADOVA	16	23
21:50	PORTOGRUARO	2	45
19:41	ADRIA	20	23

Hotel Occupancy Graph



This is an example of what a user's dashboard might look like after adding widgets to their homepage.

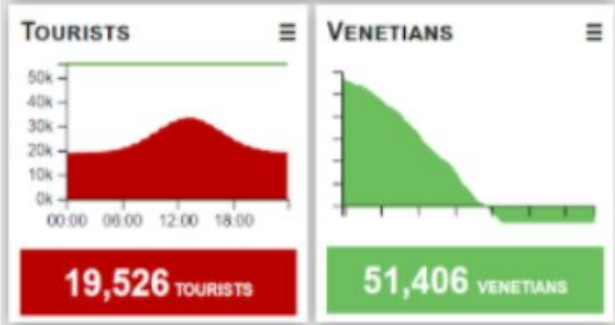
Airplane Arrivals

Live Arrival Information Time Period:

Airliner	Flight	Origin	Status	Sched.
Austrian	OS 529	Vienna Schwechat (VIE)	Landed (Delayed)	18:25
Air Dolomiti	EN 8206	Munich (MUC)	Scheduled	20:45

Welcome to The Venice Dashboard, where you can get up to date information about the historical city of Venice, Italy! Customize your dashboard by scrolling through the list of widgets and clicking the + button to add to your dashboard

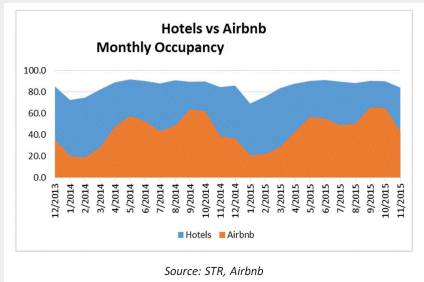
Tourist and Resident Population



The - sign is used to remove widgets from the customizable dashboard

Arrival	Destination	Arrival PAX	Departure PAX
22:04	CASTELFRANCO	18	21
21:56	TREVISO	12	26
21:55	PADOVA	16	23
21:50	PORTOGRUARO	2	45
19:41	ADRIA	20	23

Hotel Occupancy Graph



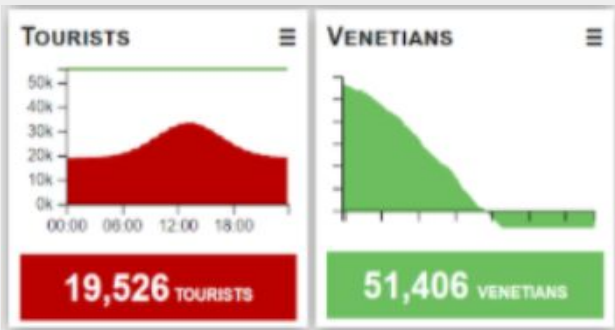
Airplane Arrivals

Live Arrival Information ☰ Time Period: ▼

Airliner	Flight	Origin	Status	Sched.
Austrian	OS 529	Vienna Schwechat (VIE)	Landed (Delayed)	18:25
Air Dolomiti	EN 8206	Munich (MUC)	Scheduled	20:45

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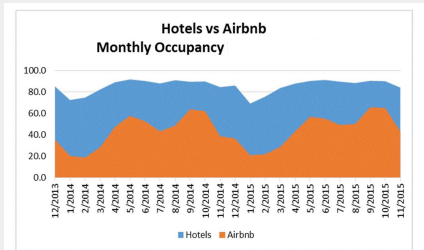
Tourist and Resident Population



Train Arrivals and Departures

Arrival Time	Provenance	Track	PAX
22:04	CASTELFRANCO	18	21
21:56	TREVISO	12	26
21:55	PADOVA	16	23
21:50	PORTOGRUARO	2	45
19:41	ADRIA	20	23

Hotel Occupancy Graph



User can move widgets around the screen adjust the size and location of it.

Airplane Arrivals

Live Arrival Information Time Period: Current Time

Airliner	Flight	Origin	Status	Sched.
Austrian	OS 529	Vienna Schwechat (VIE)	Landed (Delayed)	18:25
Air Dolomiti	EN 8206	Munich (MUC)	Scheduled	20:45

Welcome to The Venice Dashboard, where you can get up to date information about the historical city of Venice, Italy! Customize your dashboard by scrolling through the list of widgets and clicking the + button to add to your dashboard



Co-Developing Shared Policies for Sustainable Tourism Through The CityLab Events





The CityLab Events will be a Series of Events to Discuss The Future of Sustainable Tourism

- Each event will include:
 - A specific theme for discussion
 - Stakeholders related to that event's theme
- The 8 Case Studies will be preparing for the Innovation Camp through their own CityLab Events



Monitoring the Return of Tourism
2021-2022

2021

Hospitality



Tourism



Transportation



Housing



Commerce



Venetian Local Policy

2022 Innovation Camps for Pan
European Policy



There will be Individual CityLab Events Based on Common Themes



Hospitality Associations

Discuss ways to efficiently host tourists



Tourism Associations

Discuss ways to collaborate within to maintain the flow of tourism



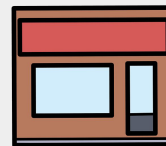
Transportation Organizations

Discuss ways to decrease tourist pollution and traffic



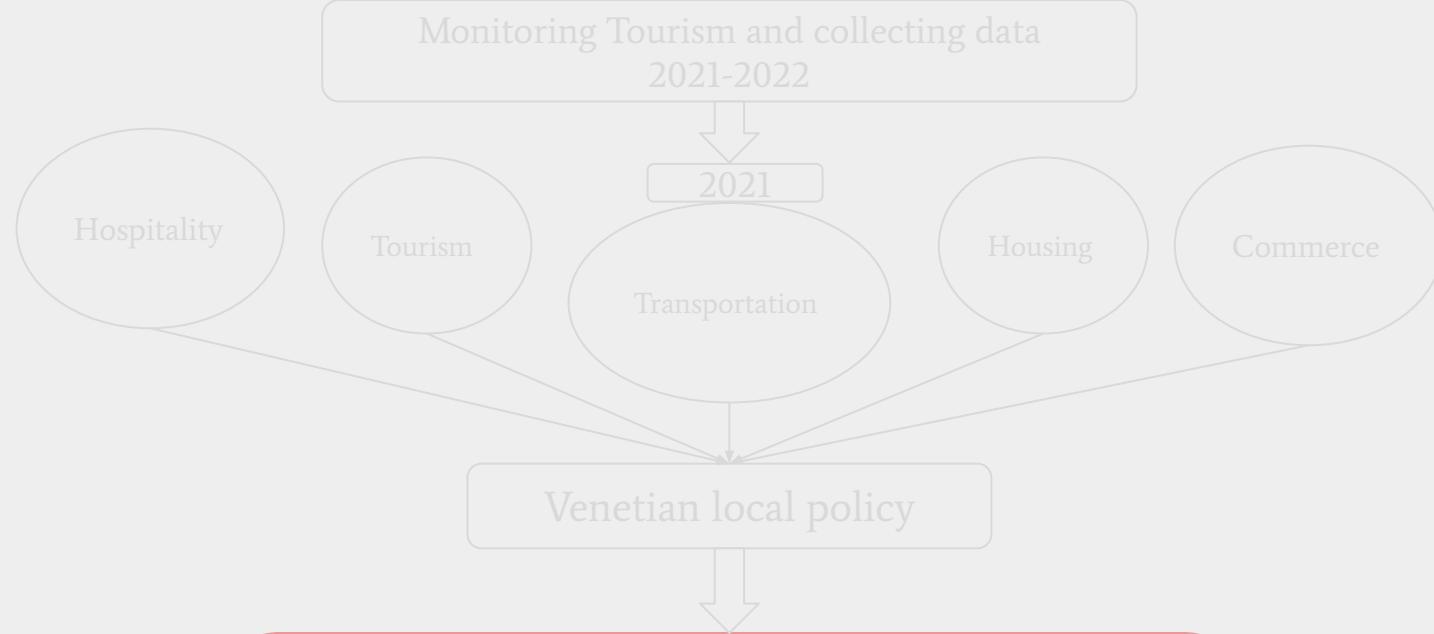
Housing Associations

Discuss ways to ensure residents have sufficient housing accommodations



Commerce Organizations

Discuss ways to increase local income and find alternative income sources

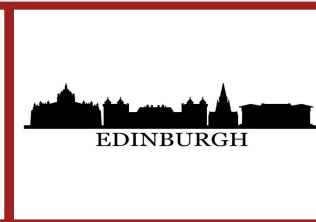


2022 Innovation Camps for Pan- European Policy



Developing Pan-European Policies Through The Innovation Camps

- Constructive discussions to upgrade European urban policy by empowering innovative humanitarian and geographical solutions



Acknowledgements

- Fabio Carrera & Jennifer deWinter - Advisors
- Marco Bertoldi
- Daniele Scarano
- Antonio Paolo Russo
- Dario Bertocchi
- Filippo Rossi
- And all other contributors to The SmartDest Grant



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SMARTDEST



Thank you!

Email: gr-ve20-tour@wpi.edu

Website:
<https://sites.google.com/view/tourism-in-venice/home>



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UNIVERSITAT ROVIRA I VIRGILISpain<http://www.ftg.urv.cat/> – URV, Urban, E., UA, U., Univerza Na Primorskem / Università Del LitoraleSlovenia<https://www.turistica.si/> – UP, Instituto De Geografia E Ordenamento Do Território Da Universidade De LisboaPortugal<http://www.igot.ulisboa.pt/> – IGOT, POLITO, P., . . . Universita Degli Studi Di MilanoItaly<https://www.unimi.it/en> – UMIL. (n.d.). SMARTDEST. Retrieved September 15, 2020, from <https://smartdest.eu/>