

**NOVEMBER 2022**

**CARBON FOOTPRINT OF  
VALÈNCIA TOURIST  
ACTIVITY.  
YEAR 2021**

**EXECUTIVE REPORT GREENHOUSE EMISSIONS  
ISO 14064-1: 2019**

**"When something cannot be defined, you cannot measure it; if you cannot measure it, you cannot improve it; if you cannot improve it, it is degraded."**

LORD KELVIN



# ACTIVITY RATIOS

## 76% direct CF

Trips of tourists, day-trippers and cruise passengers. It corresponds to chapter 1 and category 1 of ISO 14064-1

## 1,317 Millions of tourists

Against 2,182 Millions of tourists in 2019.

## 24% indirect CF

Chapter 2: Regulated accommodation  
Chapter 3,4,5: Food/catering/leisure and professional activities/shopping  
Chapter 6: Energy consumption  
Chapter 7: City transport system  
Chapter 8: Public Solid Urban Waste collection and treatment  
Chapter 9: Public Water Services  
Chapter 10: Public and Private Infrastructures

## 2,5 overnight stays

Against 2,42 overnight stays in 2019.

**571.082,58 tCO2**

**Carbon Footprint  
València tourism  
2021**

## 55,92% emissions reduction

Against 2019, due to visitors' decrease caused by the COVID-19 pandemic

## 1,33 Millions Day-Trippers

Against 2,2 millions in 2019

## 335,70 kgCO2-eq per stay

Against 487,91 kgCO2-eq in 2019

## 0,02% Water Consumption

Chapter with the less Carbon Footprint of all items from the tourist activity

## 2019- 2021 EMISSIONS COMPARISON:

### YEAR 2019

1.285.742,84 TCO2

717.480,34 TCO2

### YEAR 2021

571.082,58 TCO2

**THE REDUCTION OF VISITORS FROM 2019 TO 2021 IN 39,60% LEADS TO A EMISSION REDUCTION OF 44,42% IN 2021 AGAINST 2019**



# CARBON FOOTPRINT CHAPTERS 2021

**Total: 571.082,58 tCO<sub>2</sub>**





# CHAPTER 1: TOURIST DESTINATION ARRIVAL

Arrival to the tourist destination, 3 types of arrival:

1

## Tourists

All those people who are not residents of the city of Valencia, nor in its Metropolitan Area, who stay at least 1 night in a regulated accommodation in the city of Valencia.

**1.317.969 Tourists**

**377.218,55 tCO2eq**

**335,70 kgCO2/ tourist and stay**

2

## Day-trippers

"day tripper" is the person who does not spend the night in the city, but who visits it.

**1.328.875 day-trippers**

5,02% France

5,58% Italy

57,70% Spain

90% Europe

Visitor Reduction from 2019 to 2021 in 39,60%

**33.054,69 tCO2eq**

709.067 "Fallas" national

213.511 "Fallas" international

406.297 Remainder Day-trippers

**50,61 kgCO2/ day-tripper**

**21.809,15 tCO2eq**

## Cruise passengers

1-day visitors who arrive in the city on a cruise ship, not staying overnight in the city, have been considered under this denomination.

**130.869 Cruise passengers**

**202,57kgCO2/ Cruise passenger**

130.869 Cruise passenger

95 Cruises

1378 passenger/cruise average

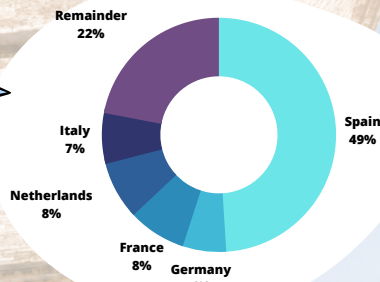
**Total Emissions: 432.082,39 tCO2eq**

# CHAPTER 2. REGULATED ACCOMMODATION

**Tourist accommodation:**

**21.897,78 tCO2eq**

**2,46 Average overnight stays**



**53,54%**

Occupancy rate by bed

**44,05%**

Occupancy rate by room

**3.245.973 Overnight stays**

**Carbon Footprint per accommodation:**



**Hotels**

**20.440,27 tCO2eq**



**Apartaments**

**258,73 tCO2eq**



**Hostels/B&B/Guesthouses/campings**

**1.198,77 tCO2eq**

Accommodation type	Number of accommodation	Number of rooms	Number of beds
5-star	8,00	1.002,00	2.008,00
4-star	41,00	5.115,00	9.965,00
3-star	46,00	2.357,00	4.565,00
2-star	16,00	741,00	1.170,00
1-star	6,00	115,00	224,00
HOSTELS/B&B/TOURIST APARTMENTS	94,00	1.297,00	3.214,00
CAMPINGS/ GUESTHOUSES	2,00	220,00	1.021,00
REGISTERED HTUs	5.561,00	5.561,00	26.611,00



# CHAPTERS 3-5: FOOD/CATERING/LEISURE AND PROFESSIONAL ACTIVITIES/SHOPPING

**Total Emissions:**  
**58.939,85 tCO<sub>2</sub>eq**

Emissions derived from  
Food/catering/leisure and  
professional activities/shopping

1  
TOURISTS



**37.623,54  
tCO<sub>2</sub>eq**

**126€**

Average  
expenditure tourists  
in València

**7.450,06 tCO<sub>2</sub>eq**  
day-trippers from  
Valencia region

**11.905,48 tCO<sub>2</sub>eq**  
day-trippers from  
other Spanish  
Regions



2  
DAY-TRIPPERS

**36,62€**

Average expenditure  
day-trippers from  
Valencia region

**58,19€**

Average expenditure day-  
trippers from other  
Spanish Regions

3  
CRUISE  
PASSENGERS



**55€**

Average expenditure  
cruise passengers

**1.960,76  
tCO<sub>2</sub>eq**



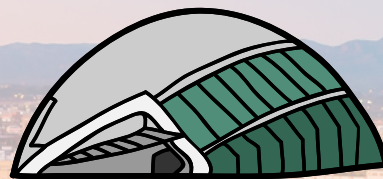
# CHAPTER 6: ENERGY CONSUMPTION

**TOTAL  
EMISSIONS**

**6.139,36 tCO<sub>2</sub>eq**



**4.514,24 tCO<sub>2</sub>eq**



**1.625,12 tCO<sub>2</sub>eq**

**PUBLIC  
LIGHTING**

**LIGHTING OF  
HISTORIC AND  
SPORT  
BUILDINGS**

# CHAPTER 7: CITY TRANSPORT SYSTEM

## Urban bus

**2.547,19  
tCO<sub>2</sub>eq**

Bus	2.547,19 tCO <sub>2</sub> eq
Cruise passengers	187,51 tCO <sub>2</sub> eq
Tourists	1.993,42 tCO <sub>2</sub> eq
Day-trippers	366,26 tCO <sub>2</sub> eq

## Underground

**273,50  
tCO<sub>2</sub>eq**

Underground	273,50 tCO <sub>2</sub> eq
Tourists	273,50 tCO <sub>2</sub> eq

## Taxi, Car rental/ Hire, others

**1.234,76  
tCO<sub>2</sub>eq**

Taxi	1.234,76 tCO <sub>2</sub> eq
Cruise passengers	13,04 tCO <sub>2</sub> eq
Tourists	951,29 tCO <sub>2</sub> eq
Day-trippers	270,43 tCO <sub>2</sub> eq

## Tourist Bus

**1.481,53  
tCO<sub>2</sub>eq**

Tourist Bus	1.481,53 tCO <sub>2</sub> eq
Cruise passengers	141,98 tCO <sub>2</sub> eq
Tourists	975,33 tCO <sub>2</sub> eq
Day-trippers	364,22 tCO <sub>2</sub> eq

**5.581,34  
tCO<sub>2</sub>eq**

**TOTAL EMISSIONS  
FOR INTRA-URBAN  
TRANSPORT**

# CHAPTER 8: PUBLIC SOLID URBAN WASTE COLLECTION AND TREATMENT

## TOURISTS



**1.833,79  
tCO<sub>2</sub>eq**

## DAY-TRIPPERS



**739,59  
tCO<sub>2</sub>eq**

## CRUISE PASSENGERS



**72,84  
tCO<sub>2</sub>eq**

Rubbish	1.712,87 tCO <sub>2</sub>
Organic Rubbish	86,10 tCO <sub>2</sub>
Light packaging	18,87 tCO <sub>2</sub>
Paper and paperboard	11,42 tCO <sub>2</sub>
Glass	4,52 tCO <sub>2</sub>

Rubbish	690,82 tCO <sub>2</sub>
Organic Rubbish	34,73 tCO <sub>2</sub>
Light packaging	7,61 tCO <sub>2</sub>
Paper and paperboard	4,61 tCO <sub>2</sub>
Glass	1,82 tCO <sub>2</sub>

Rubbish	68,03 tCO <sub>2</sub>
Organic Rubbish	3,42 tCO <sub>2</sub>
Light packaging	0,75 tCO <sub>2</sub>
Paper and paperboard	0,45 tCO <sub>2</sub>
Glass	0,18 tCO <sub>2</sub>



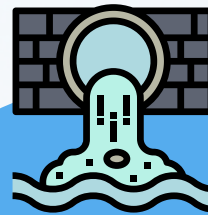
# CHAPTER 9: PUBLIC WATER SERVICES

**TOTAL EMISSIONS: 113,874 tCO<sub>2</sub>eq**



**DRINKING WATER  
SUPPLY**

**53,36 tCO<sub>2</sub>eq**



**SEWAGE AND  
WASTEWATER  
TREATMENT**

**60,51 tCO<sub>2</sub>eq**

**EUROPE'S FIRST MAJOR CITY WITH A CLEAR  
LODESTAR TO ACHIEVE CARBON NEUTRALITY  
IN WATER CYCLE MANAGEMENT**

**1**



**2**



**THE CITY WITH THE HIGHEST  
WATER EFFICIENCY (87 %) BY  
SMART METERING IN EUROPE**

# CHAPTER 10: PUBLIC AND PRIVATE INFRASTRUCTURES

**TOTAL EMISSIONS:  
43.681,78 tCO<sub>2</sub>eq**

**9.878,63 tCO<sub>2</sub>**

## LEISURE ACTIVITIES

OCEANOGRÀFIC OF VALÈNCIA  
AND BIOPARC

**2.458,11 tCO<sub>2</sub>**

## SPORT EVENTS

MARATHON OF VALÈNCIA,  
HALF-MARATHON OF VALÈNCIA  
NATIONAL SPORT EVENTS  
EUROPEAN SPORT EVENTS

**8.709,35 tCO<sub>2</sub>**

## CULTURAL EVENTS

PALAU DE LA MÚSICA,  
PALAU DE LES ARTS "REINA SOFÍA",  
CACSA - HEMISFERIC  
CACSA - PRÍNCIPE FELIPE MUSEUMS  
OTHER MUSEUMS

**4.769,26 tCO<sub>2</sub>**

## POPULAR FESTIVALS

FALLAS  
MARITIME HOLY WEEK

**1.007,10 tCO<sub>2</sub>**

## LOCAL GOVERNMENT MAINTENANCE BUDGET

STREET CLEANING  
PARKS AND FOUNTAINS O&M  
MOBILITY  
ROADS AND LIGHTING O&M

**16.859,33 tCO<sub>2</sub>**

## PUBLIC INFRASTRUCTURES FOR THE PROPER DEVELOPMENT OF TOURISM

FAIR OF VALÈNCIA, PALACE OF CONGRESS  
VALÈNCIA AIRPORT  
RAILWAY STATION JOAQUÍN SOROLLA  
RAILWAY STATION VALÈNCIA NORD  
BUS STATION, LA MARINA,  
PORT OF VALÈNCIA

