



# SITUATION REPORT ON THE ENVIRONMENTAL SUSTAINABILITY, ECONOMIC AND SOCIAL CONDITIONS OF TOURISM IN MALLORCA

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## **0. PRESENTATION OF THE REPORT**

### **0.1. Introduction**

The Council of Mallorca, through the Mallorca Turisme Foundation (FMT), promotes the following report on the situation of environmental, economic and social conditions in Mallorca in the field of tourism. Thus, the Sustainable Tourism Observatory (hereinafter, OTS) of Mallorca will have an initial diagnosis. This is a first measurement of the variables that affect the different factors of sustainability that must serve as a starting point for the Mallorca OTS while it adopts the definitive system of indicators. The drafting of the report is carried out by the environmental company LA LLENA with NIF J-25.506.809 commissioned by the Fundació Mallorca Turisme (FMT).

### **0.2. Background**

The Consell de Mallorca, through the Fundació Mallorca Turismo (FMT), an affiliate member of the World Tourism Organization (UNWTO) since last September 2020, and since 2021, a member of the INSTO Network (International Network of Sustainable Tourism Observatories) is developing the Sustainable Tourism Observatory (OTS) in accordance with the principles and recommendations of the UNWTO.

The OTS will be formed as a department of the Mallorca Turisme Foundation, which must collect, generate, monitor, and ultimately centralize the information provided by the group of collaborating *stakeholders*, institutional bodies and entities of the socioeconomic fabric of Mallorca. Arguably, this groups of actors generate and possess much of the data. Lastly, all this information will make up the so-called "Mallorca Tourism and Sustainability Intelligence System" which should allow measuring, evaluating and proposing actions to improve the sustainability of the destination.

The Observatory must help to consolidate the position of international tourism leadership that the island of Mallorca occupies while contributing to guarantee its sustainability by evaluating the tourism impact in the economic, social and environmental dimensions. This will be achieved by promoting greater intelligence in destination management through the active participation of social agents and cooperative learning processes. The main goal of the OTS is to generate information of interest that guides public and private sector decisions, providing intelligence to the entire value chain. Thereby, it increases its competitiveness and productivity notwithstanding the guiding principles of sustainability.

To develop its mission, the activity of the OTS is structured around three axes: a) Monitor the economic, social and environmental impact of tourism in the destination; b) generate new sources of information and analysis that arise from the cooperation and mutual exchange of information and experiences among the main agents; and c) generate synergies and cooperative learning between the public and private sectors for decision-making based on data. The latter facilitate the design of policies and strategies based on the inalienable criteria of sustainable development, use of technological advances and conservation of socio-cultural heritage.

### **0.3. Objectives of the Situation Report**

The purpose of the commissioned job is to write a Report on the situation of environmental sustainability, economic and social conditions in Mallorca in the field of tourism as an analysis of these aspects at the present time. This will constitute a starting diagnosis.

### **0.4. Report methodology**

The report on the situation of environmental sustainability, economic and social conditions in Mallorca has been carried out by analyzing the current state of twenty vectors at a general level in Mallorca and in some cases in the Balearic Islands. Whenever possible, the private actors in the tourism value chain have been analyzed in their different categories (hotels, travel agencies, services, restaurants). The analyzed vectors (or families of indicators) used for the analysis are divided into two large groups with 11 and 9 vectors in each one, respectively:

a) Families of indicators (or vectors) established as mandatory by the World Tourism Organization (UNWTO) in the Sustainable Tourism Observatories that are part of the network:

1. Solid waste management
2. Water administration, business structure
3. Wastewater management
4. Economic benefits of the destination
5. Tourist seasonality
6. Occupation
7. Energy Management
8. Climate change and destination capacity
9. Universal accessibility and inclusivity
10. Local Satisfaction
11. Governance

b) Families of indicators (or vectors) proposed and established by the application for the Sustainable Tourism Observatory of Mallorca that include specific aspects of the island:

12. Innovation
13. Sustainable production and consumption
14. Biodiversity and nature protection
15. Cultural heritage and traditions
16. Mobility
17. Use and planning of the territory, control of tourism development<sup>1</sup>
18. Visitor satisfaction and behaviors
19. Safety and Health
20. Sports Tourism

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<sup>1</sup> The family of indicators (or vector) called "Control of the capacity and use of the territory" has been included in its analysis, given the practical coincidence of the concept.



## 1. SOLID WASTE MANAGEMENT

### 1.1. Introduction

The current framework for waste management in the islands as a whole is based on the exercise of powers by the four Island Councils by attribution of the laws of the State and the Autonomous Community, in accordance with the Statute of Autonomy and the basic state legislation. In parallel, the domestic collection service is carried out through the municipal corporations and associations. Thus, the Council of Mallorca prepares, processes and approves the Sectoral Master Plans for non-hazardous waste (the last one approved in 2019) and manages two insularized public services: the treatment of urban waste, with a concession to the company Tirme SA, and the treatment of bulky construction and demolition waste and end-of-life tires, under concession to the Mac Insular company.

At the same time, it should be said that the preparation and approval of the sectoral master plan for the prevention and management of hazardous waste corresponds to the Government of the Balearic Islands. Likewise, the Government has the competence to establish the general principles to which the planning instruments regarding waste at the insular and municipal levels must adhere, in order to ensure the balance and cohesion of planning throughout the Autonomous Community.

### 1.2. General data on urban solid waste

Regarding urban solid waste (USW), the data for the 2017-2020 period are presented as follows.

*Table 1.1. Urban solid waste (RSU) by fractions collected in Mallorca in the period 2017-2020 (source: own, from the Council of Mallorca).*

Fraction	2017	2018	2019	2020
Light packaging	17,218	18,997	22,216	21,160
Paper and carton	31,041	32,623	33,398	25,995
Glass	26,648	27,966	29,335	20,765
Organic mater	22,359	25,350	29,959	19,127
General refuse	461,642	549,103	535,963	423,695
Total	558,908	654,038	650,872	510,743
Total recyclable fractions	97,266	104,935	114,909	87,048
% selective collection	17.40	16.04	17.65	17.04
Waste per inhabitant (kg/day)	1.76	2.04	1.99	1.53

The general data for Mallorca shows a peak in waste production in 2018 (with similar data in 2019) while in 2020 there is a notable drop (approx. 140,000 tons ), surely due to the covid-19 pandemic and the consequent drop of tourist activity. For its part, the percentage of selective collection has remained fairly stable at around 16-17%.

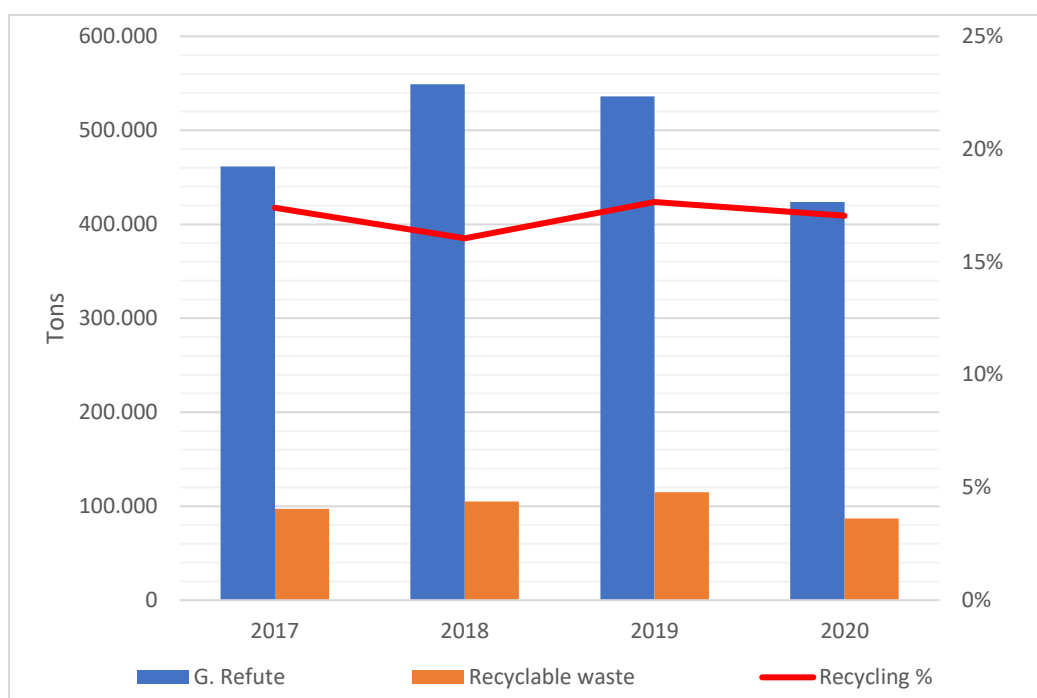


Figure 1.1: Evolution of selective collection in Mallorca in the period 2017-2020, in tons and percentage (source: own from the Council of Mallorca).

It must be said that there is a clear correlation between tourist activity and an increase in waste production, an aspect that has often been pointed out in the media<sup>2</sup>. This can be seen graphically by observing the monthly variation in the generation of USW:

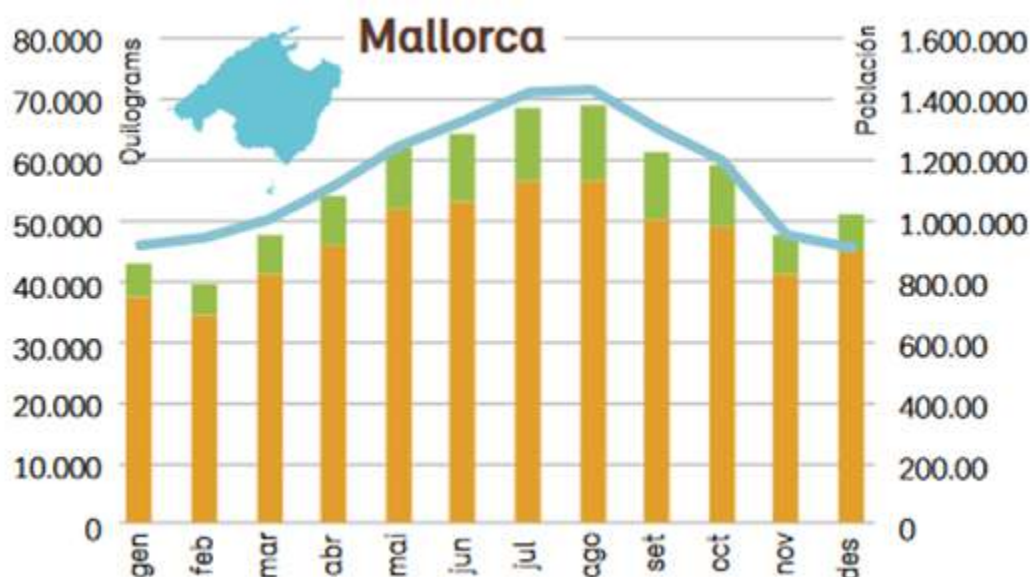


Figure 1.2: Monthly variation of non-selective (orange) and selective (green) collection in Mallorca, in relation to population volume (blue line), 2018. (Source: Rezero). Note: data is in tons, not kilograms.

<sup>2</sup> Examples: Autonomous channel IB3: "Tourism multiplies by four the volume of waste in some areas of Mallorca", 2018; *Ara Balears*: "Tourism triples the production of waste in the Balearic Islands", 2019.

Regarding the types of home collection implemented in the different municipalities, according to data from *Rezero*, 35 municipalities have implemented total or partial door-to-door collection system (2018). However, these municipalities only bring together 9% of the population. The rest of the municipalities (18) maintain curbside container systems (islands or buried). Regarding the collection of the organic matter fraction, it is implemented in 30 municipalities (2020).

### 1.3. Production of waste generated by commercial sectors

As far as the productive sectors are concerned, hospitality activities, headed by hotels (133,100 tons), restaurants (88,472 tons) and bars (36,798 tons) are the ones that contribute the most to the generation of commercial waste.

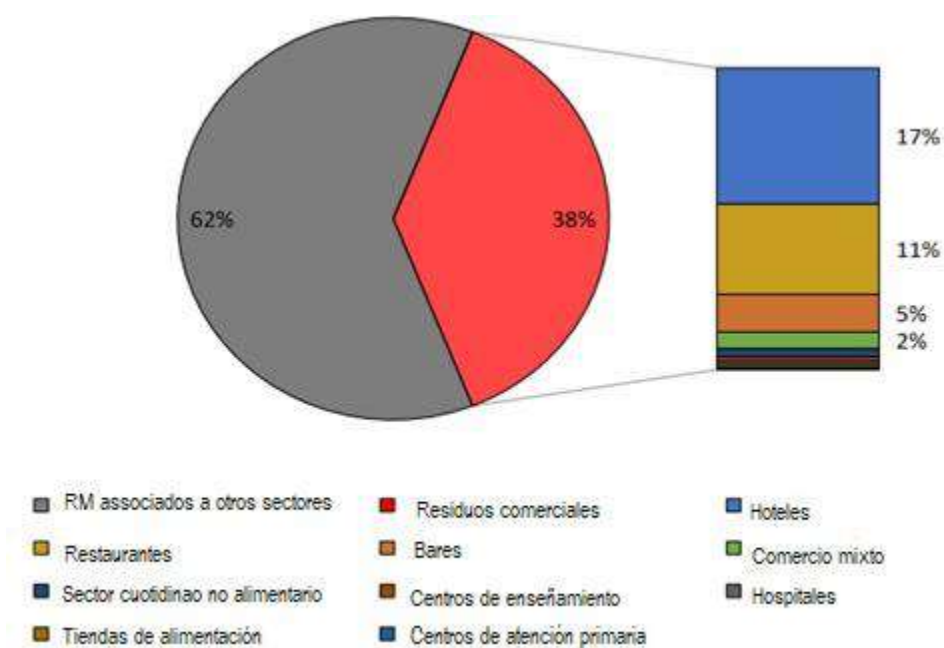


Figure 1.3: Waste production in Mallorca by productive sectors (Source: Cerdà et al., 2019<sup>3</sup>).

Regarding the hotel sector, according to data from the Network of Sustainable Hotels in the Balearic Islands, the percentage of recycling in its hotels registers a 45.78% compared to a 54.22% corresponding to the general refuse. On the other hand, in those municipalities where there is separate collection of the organic matter fraction, the percentage of selective collection stands at 60%. It is found that these hotels have a much higher percentage of selective collection than general household collection.

<sup>3</sup> Cerdà et. al. (2019). Estudio sobre la generación de residuos de determinadas actividades comerciales en la comunidad Autónoma de las Illes Balears.

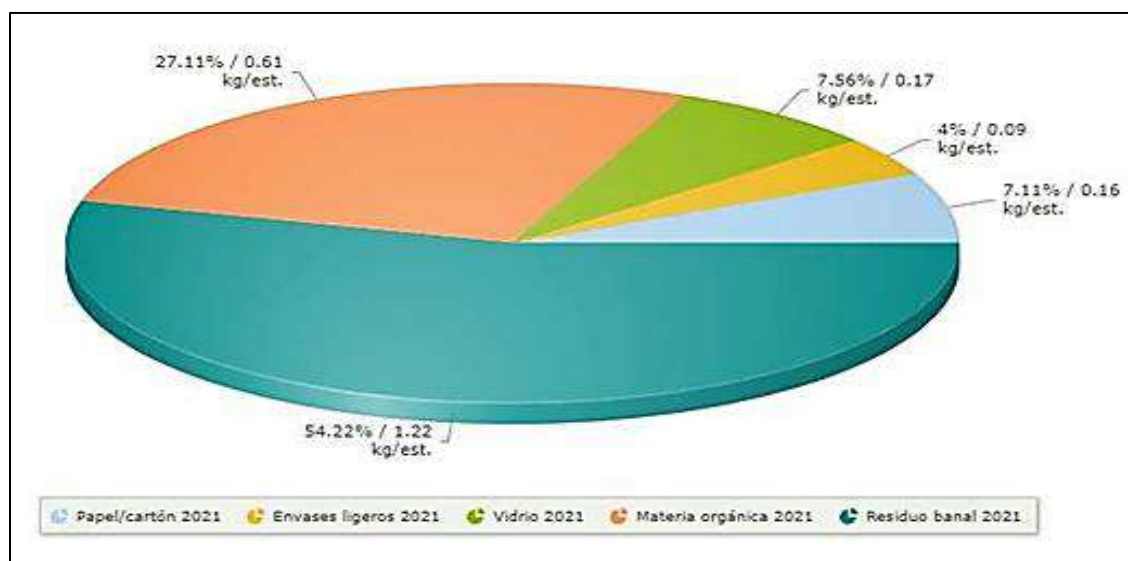


Figure 1.4: Production and recycling of waste in establishments adhering to the Network of sustainable hotels in the Balearic Islands that carry out the self-assessment of environmental indicators (Source: Network of sustainable hotels in the Balearic Islands).

#### 1.4. Waste on beaches

As for beaches, a 2020 report <sup>4</sup> finds an average accumulation of garbage of 400 items of garbage / km<sup>2</sup>. From the seven Mediterranean islands analysed, Mallorca had the second highest density. The report was part of the BLUEISLANDS project (2017-2020) that had European funding and had the objective of correctly identifying, directing and mitigating the effects of seasonal variation in waste generation.

Once the magnitude of the problem was detected, the program itself designed an action plan to mitigate the adverse situation. Specifically, an information and awareness campaign was promoted with various materials and dissemination during 2019. It was assessed that, in Mallorca, the campaign "may have reduced the amount of waste" accumulated by 45%.

The report was referred in some media, as in the case of *tourinews* which published a news item with the headline: "The beaches of Mallorca, the second dirtiest in the Mediterranean " (08/20/2018). It should be noted that the study only analyzed three beaches in Mallorca (18 samples in total) and only seven islands were compared. Despite the sensationalist nature of the headline, this does not mean that the accumulation of waste on the beaches during the tourist season constitutes an issue recognized by the Consell de Mallorca.

<sup>4</sup> Grelaud , M. & Ziveri , P., 2020. The generation of marine litter in Mediterranean island beaches as an effect of tourism and its mitigation. Scientific reports . 10. 10.1038/s41598-020-77225-5. Realization both dates of 2017.

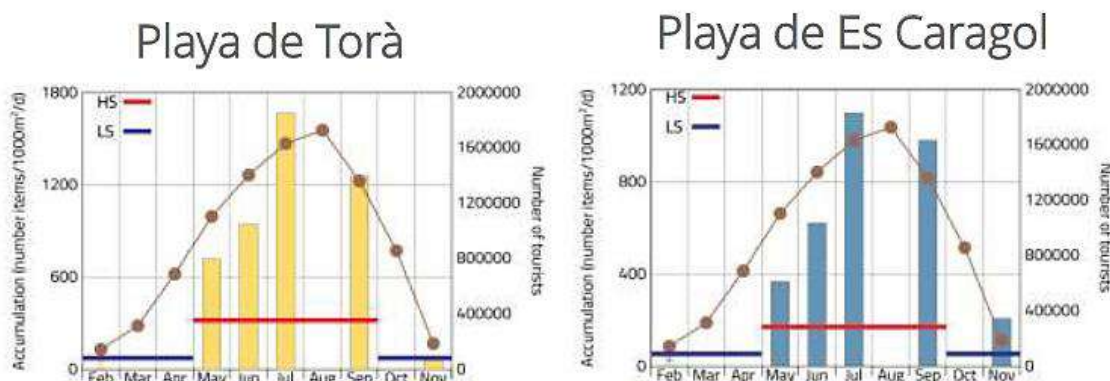


Figure 1.5: Garbage accumulation rate per month and presence of tourists on two beaches in Mallorca (2017) (Source: Consell de Mallorca – BLUEISLANDS Program).

### 1.5. Reuse of materials

Regarding the amount of materials reused and/or prepared for reuse, relatively constant figures are observed, except for a drop in 2018 for appliances and electronic equipment (RAEE). On the other hand, the percentages of reuse with respect to the total volumes show some irregularity in terms of bulky and textile; for this part, RAEE is low and tended to decrease.

At the level of the share of reusable containers marketed, the data for the period 2010-2018 show a downward trend, especially due to the large drop in soft drinks (beer and water have remained more stable).

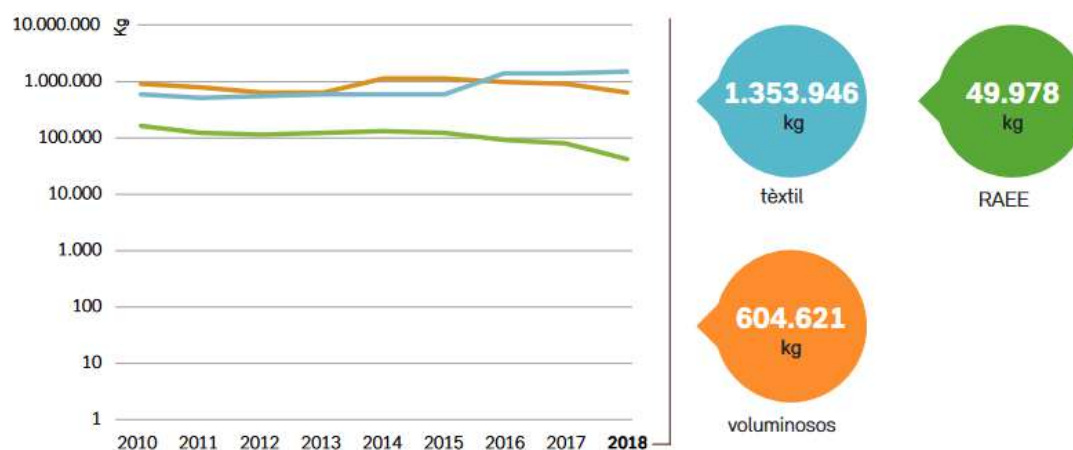


Figure 1.6: Quantity of materials reused and/or prepared for reuse in the Balearic Islands (2010-2018) (Source: Rezero).

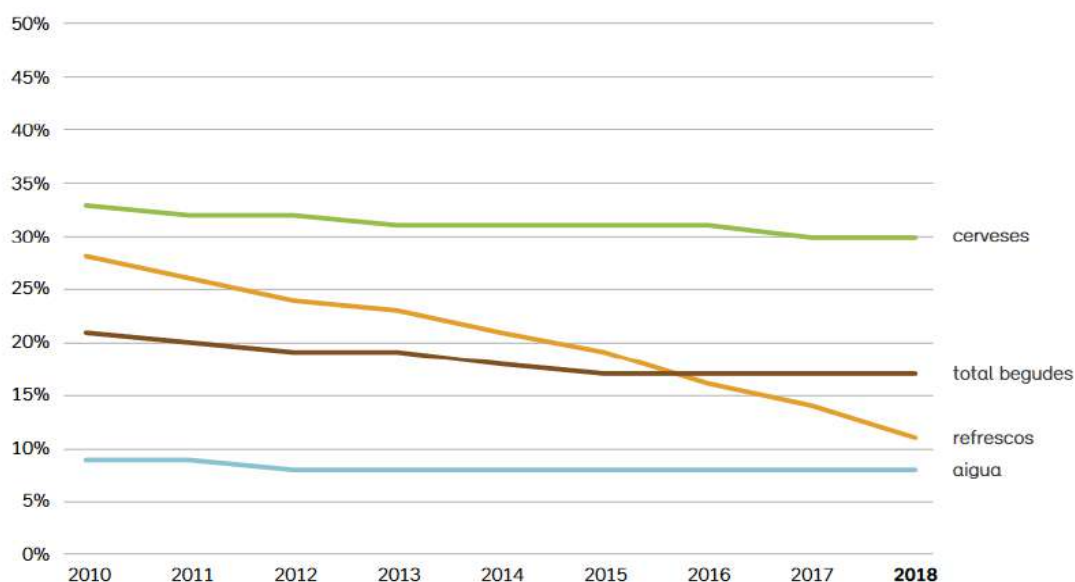


Figure 1.7: Share of reusable containers (water, soft drinks and beers) with respect to the total number of containers marketed in the Balearic Islands (2010-2018) (Source: Rezero).

## 1.6. Waste management policies

The promotion of waste prevention, reduction and management policies has experienced a strong boost in the years 2018-2019, unlike previous years (2011-2017), characterized by almost zero public investment. It should be noted that the 2019 financing includes a line referring to the "sustainable management of tourism resources" covered by ITS funds which, to a large extent, explains the increase in investments.

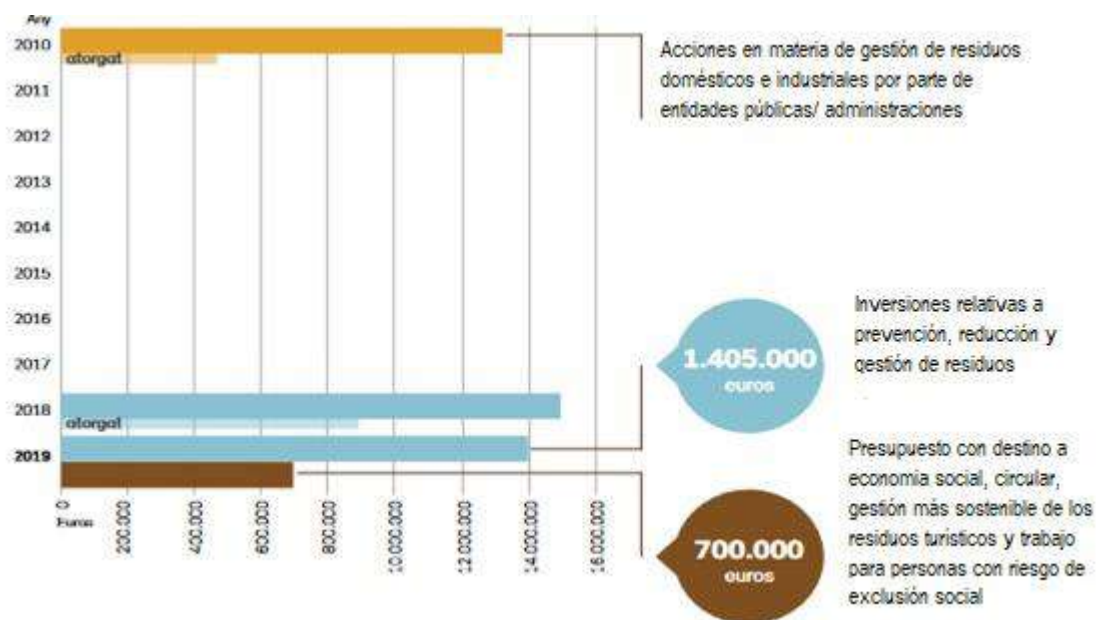


Figure 1.8: Investments in promoting waste prevention, reduction and management policies in the 2010-2019 period (Source: Rezero from the Department of the Natural Environment of the GOIB).

It is worth mentioning that the approval of Law 8/2019, of February 19, on waste and contaminated soil in the Balearic Islands, has allowed the implementation of measures that aim to reduce the generation of waste. This had also an impact on the tourism sector, due to its role as a large generator of waste. The following measures stand out:

- Prohibition of distributing disposable plastic bags in shops.
- Ban on the sale and distribution of single-use plastic cutlery.
- HORECA sector (hotels, restaurants, catering): prohibition of the use of single-dose food products and disposable utensils for the consumption of food and drink (except those made with cellulose); obligation to supply free and unbottled water.
- Replacement of elements such as coffee capsules, straws, candy sticks, cotton sticks with compostable materials.
- Ban on disposable packaging and cups in public buildings.

## **2. WATER MANAGEMENT**

### **2.1. Introduction**

According to data from “We are water Foundation”, tourism worldwide consumes about 1% of water resources, a level consumption far from the 70% of the volume consumed by agriculture or 19% by the industrial sector. However, in emerging countries the consumption of the tourism sector reaches around 7% and in others where tourism is the main economic pillar (Caribbean, Polynesia...) it is the most consuming sector. In addition, it is necessary to take into account the fact that many tourist sites are located in areas with little water availability.

### **2.2. General use of water in relation to supply**

The volume of water consumed by tourism depends on many aspects: the type of accommodation, the time of year or the stars of the hotels. Thus, according to data from “We are water Foundation, 2017” in Spain, the average consumption per tourist ranges between 450 and 800 liters/day, while the average consumption per inhabitant is 127 liters/day. In the case of the Balearic Islands and Mallorca, according to the study by “Deyà Tortellà and Tirado Bennassar, 2011” the average consumption per tourist is 541.6 liters/day (overnight), but with a variation in consumption between 156.6 and 2,425.6 liters/day. On the other hand, according to the results of the survey on water and energy consumption in establishments in the Balearic Islands-2017 (carried out on the basis of 394 surveys in hotels in all the Balearic Islands), an average consumption per tourist is estimated at 360 litres/ day. Finally, according to data from the Plan for Intervention in Tourist Areas of the Island of Mallorca (PIAT), the average consumption per overnight stay of tourists in Mallorca is estimated at 466 litres/day, which contrasts with the 136.16 litres/day of local people.

The following figure shows the evolution of water consumption per tourist and day and the comparison with the average consumption by tourism in Spain and that of the local population. Making a comparison between the PIAT data, specific to Mallorca, and the data from “Deyà Tortellà and Tirado Bennassar, 2011” water consumption per tourist and overnight stay was reduced by 16% in this period. However, when compared to the average consumption of the local population in 2017 in relation to the average consumption per tourist, the latter is still 3.4 times higher. On the other hand, comparing with the results of the survey of tourist establishments, the results collected in the PIAT show a consumption of 100 liters higher, equivalent to 20% more.



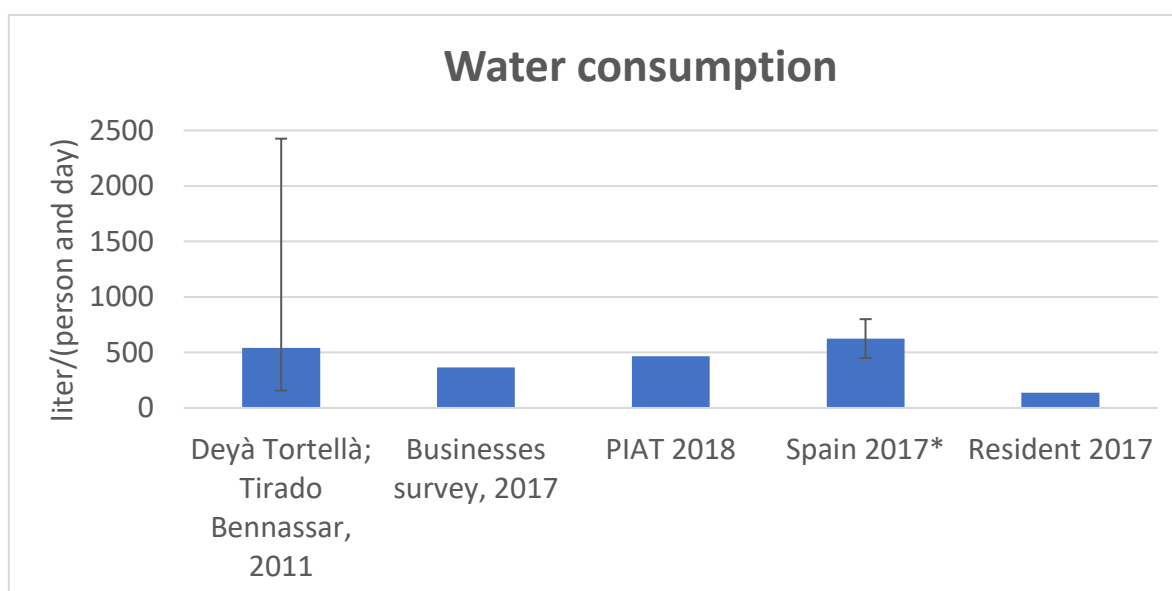


Figure 2.1. Summary of consumption in Mallorca over the years compared to Spain and consumption per inhabitant in 2017. \* The average consumption for Spain in 2017 is calculated as the average between the data of the range provided (source: own elaboration).

### 2.3. Recycling and reuse of water

Regarding the measures for saving water in the hotel sector, according to the Hotel Business Federation of Mallorca (FEHM), 70% of the hotel establishments on the island (figure 2.3) do implement environmental policies, having installed saving systems and other good practices as part of the routine operation of the hotel.

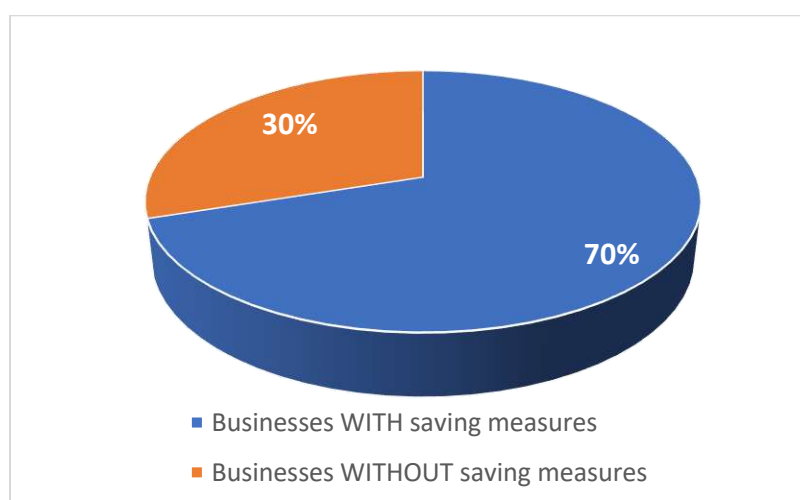


Figure 2.2. Businesses with and without saving measures (source: own from FEHM).

Analyzing the use of recycled water, despite not having specific data for Mallorca, the 2017 survey of water and energy consumption in establishments in the Balearic Islands indicates that 4.4% of hotel establishments use recycled water. Regarding the origin of this recycled water, 13.8% corresponds to water from treatment plants or septic tanks of the establishment itself, while the remaining 86.2% is water from the water treatment network.

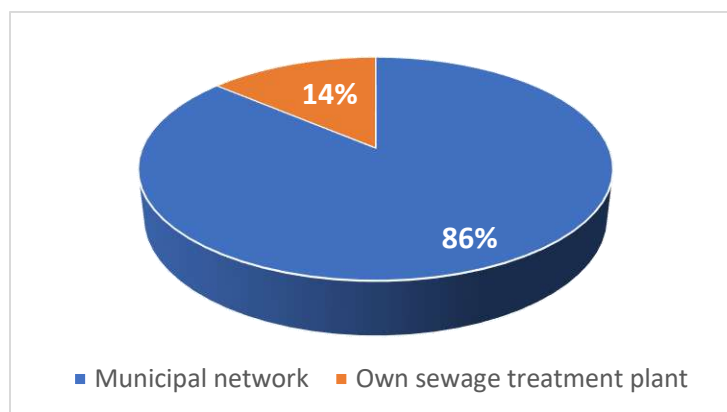


Figure 2.3. Distribution of the origin of the recycled water (source: survey of water and energy consumption at tourist establishments in the Balearic Islands, 2017).

Regarding the uses of this recycled water, as Figure 2.5 shows, 29% is used for irrigation, 62% for the toilet tank, and 9% for non-specific uses.

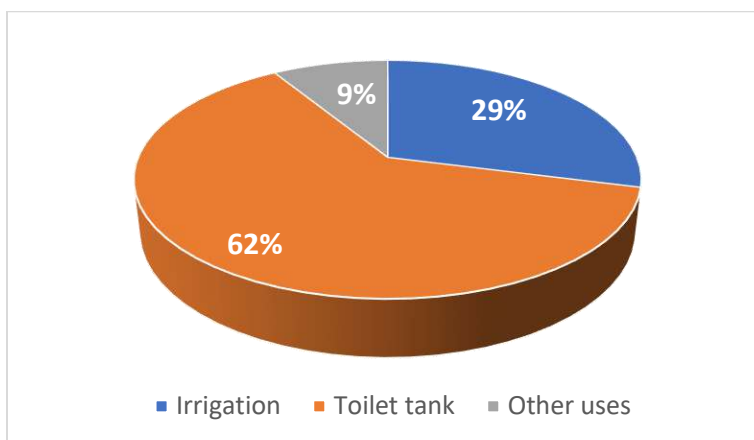


Figure 2.4. Distribution of the main uses of recycled water (source: survey of water and energy consumption at tourist establishments in the Balearic Islands, 2017).

As for the total volume of water saved, it has only been possible to analyze the part referring to recycled water and with global data for all the Balearic Islands. According to the data available in IBESTAT, and as shown in figure 2.6, from 2010 to 2018, the volume of reused water varies between 95,389 and 191,227 m<sup>3</sup> per year, which represents between 29% and 45% of the treated wastewater.

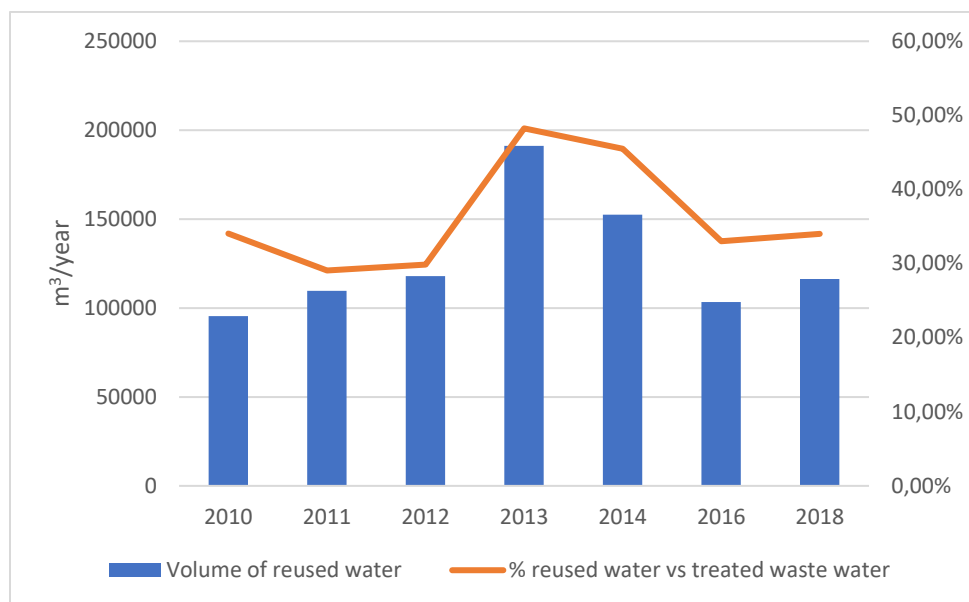


Figure 2.5. Volume of treated water and % of reused water for the period from 2010 to 2018 (source: own from IBESTAT).

Lastly, regarding the water consumption of tourism in Mallorca according to the study by “Deyà Tortellà and Tirado Bennassar, 2011”, Mallorca consumes 82% of the water in all the Balearic Islands, 19% of which corresponds to the tourism sector. This means that Mallorca consumes 231.35 hm<sup>3</sup> of water/year, of which 44 hm<sup>3</sup> corresponds to the tourism sector.

## 2.4. Water safety and quality

The Government of the Balearic Islands has different bodies dedicated to informing and managing water quality, specifically, the General Directorate of Water Resources and the Balearic Agency for Water and Environmental Quality (ABAQUA), both attached to the regional Ministry of Environment and Territory.

In addition, there is the Water Portal, intended to inform and make accessible information related to the use of water and its quality, and other aspects related to water.

There are also important projects underway, specifically the Wat'savereuse, between September 2020 and October 30, 2023, in collaboration with other entities from the Balearic Islands, Catalonia and Occitania. The main objective of the Wat'savereuse project is to help alleviate the environmental problem of water scarcity and drought that affects the regions of the Mediterranean coast, and focuses on the following actions:

- Carrying out awareness campaigns aimed at saving and reducing the global consumption of water by tourists during their stay in hotels.
- Raise awareness on the water reuse issue in the tourism industry and encourage the implementations of at least five solutions that make it possible.
- Strengthen collaboration between public administrations and value chain operators to reduce the global consumption of fresh water.

## 2.5. Seasonal water scarcity

The drought index allows the monitoring of water scarcity on the island. To study the drought index, Mallorca is divided into 7 different demand units: Artà, Manacor-Felanitx, Migjorn, Es Pla, Palma Alcúdia, Tramuntana Nord and Tramuntana Sud.

The drought index is measured monthly per unit of demand and allows the monitoring of the degree of hydrological drought of each one. Tracking differentiates between 4 scenarios that are displayed in 4 different colors:

- Green, normal → aquifers situation stable and good.
- Yellow, pre-alert → resources begin to dwindle and it is necessary to start taking management measures.
- Orange, alert → resources are beginning to be scarce and consequently it is necessary to take more management measures, and begin consumption restrictions.
- Red, serious emergency → severe situation. Consequently, measures are planned to restrict water consumption as well as the prohibition of certain uses of water.

The scenarios change when the state of the demand units remains above the threshold for a series of months, as shown in the following figure:

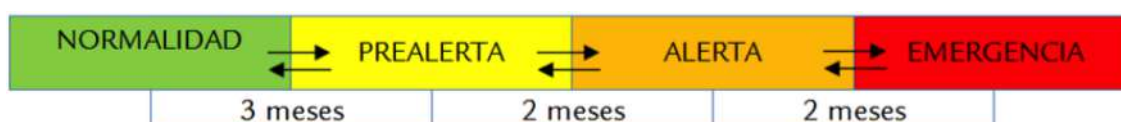


Figure 2.7. Different scenarios considered in the drought index and the months that must pass to change from one scenario to another (source: Water website of the Balearic Islands).

Table 2.1. Compilation of results of the drought index by demand units of Mallorca from January-2016 to November-2021, in no. of months and percentage of total months

Unit / Drought index	Artà	Manacor-Felanitx	Migjorn	Es Pla	Palma-Alcudia	Tramuntana Nord	Tramuntana Sud
<b>Normality (n)</b>	49	32	49	41	48	36	Four. Five
<b>Pre-alert (n)</b>	18	39	22	30		33	26
<b>Alert (n)</b>	4	0	0	0	0	two	0
<b>Normality (%)</b>	69.01	45.07	69.01	57.75	67.61	50.70	63.38
<b>Pre-alert (%)</b>	25.35	54.93	30.99	42.25	32.39	46.48	36.62
<b>Alert (%)</b>	5.63	0	0	0	0	2.82	0

As can be seen in the previous, in the last 5 years all the demand units have been mostly at the normal level, except for Manacor-Felanitx, which most of the time has been at the pre-alert rate. On the other hand, in recent years only 2 units have been at the level of the alert hydrological drought index: Artà for 5.63% of the time, and the Tramuntana Nord unit for 2.82%.

## 2.6. Water costs and prices

According to data from EMAYA (public agency owned by Palma city Council which, among others, manages the water cycle), the rates for water consumption in hotels are shown below:

*Table 2.2. List of prices of the different consumption rates by hotels.*

Volume consumed	Price (€/ m <sup>3</sup> )
Between 0 and 10 m3 for every 2 beds	0.6000
More than 10 m3 up to 20 m3 for every 2 beds	0.8400
More than 20 m3 up to 40 m3 for every 2 beds	1.3800
More than 40 m3 up to 80 m3 for every 2 beds	3.0900
More than 80 m 3 for every 2 beds	5.7600
reclaimed water	0.2730

### **3. WASTEWATER MANAGEMENT**

#### **3.1. Introduction**

Tourism, like all economic sectors that consume water, generates wastewater once it has been consumed and used by tourists. According to Aquanews, 7% of wastewater pollution in the Mediterranean comes from tourism.

#### **3.2. Regulations and plans**

The regulations regarding wastewater applicable to the Balearic Islands are listed as follows:

- Directive 91/271/EEC of the Council, of May 21, 1991, on the treatment of urban wastewater.
- Royal Decree Law 11/1995, of December 28, which establishes the standards applicable to the treatment of urban wastewater.
- Royal Decree 509/1996, of March 15, implementing Royal Decree-Law 11/1995, of December 28, which establishes the standards applicable to the treatment of urban wastewater.
- Royal Decree 2116/1998, of October 2, which modifies Royal Decree 509/1996, of March 15, developing Royal Decree-Law 11/1995, of December 28, which establishes the standards applicable to the treatment of urban wastewater.
- Hydrological Plan of the Balearic Islands (PHIB-2019) for the period 2021-2027.

#### **3.3. Treatment systems in operation and treated water**

According to data sourced in IBESTAT for the period between 2000 and 2007, in which there is a difference between the volume of wastewater collected (generated) and the volume of water treated by all the Balearic Islands, an average of 97.36% of the water collected was purified, a percentage that varies between 92.4% and 99.6%, as shown in Figure 3.1 , where the volume collected and treated per year is also observed. From 2007 onwards there is no information available on the volume of water collected. However, table 3.1 shows available data on the volume of treated water from 2000 to 2018.

In addition, another aspect to take into account is the undersizing of wastewater treatment plants (WWTP). In relation to this aspect and according to the annual sanitation and purification report 2020, 7 undersized WWTPs have been detected in Mallorca: Campanet, Consell, Inca, Felanitx, Vilafranca, San Juan, and Santa Eugenia. These represent 10.7% of the sewage treatment plants in Mallorca.

Table 3.1. Annual volume treated in the treatment plants (WWTP) of the Balearic Islands (source: own from IBESTAT).

	Treated volume (m <sup>3</sup> )		Treated volume (m <sup>3</sup> )
2000	183,892	2009	301,103
2001	146,948	2010	280,047
2002	172,067	2011	377,398
2003	178,939	2012	394,772
2004	331,908	2013	396,379
2005	452,976	2014	335,193
2006	367,836	2016	313,241
2007	323,705	2018	341,865
2008	291,718		

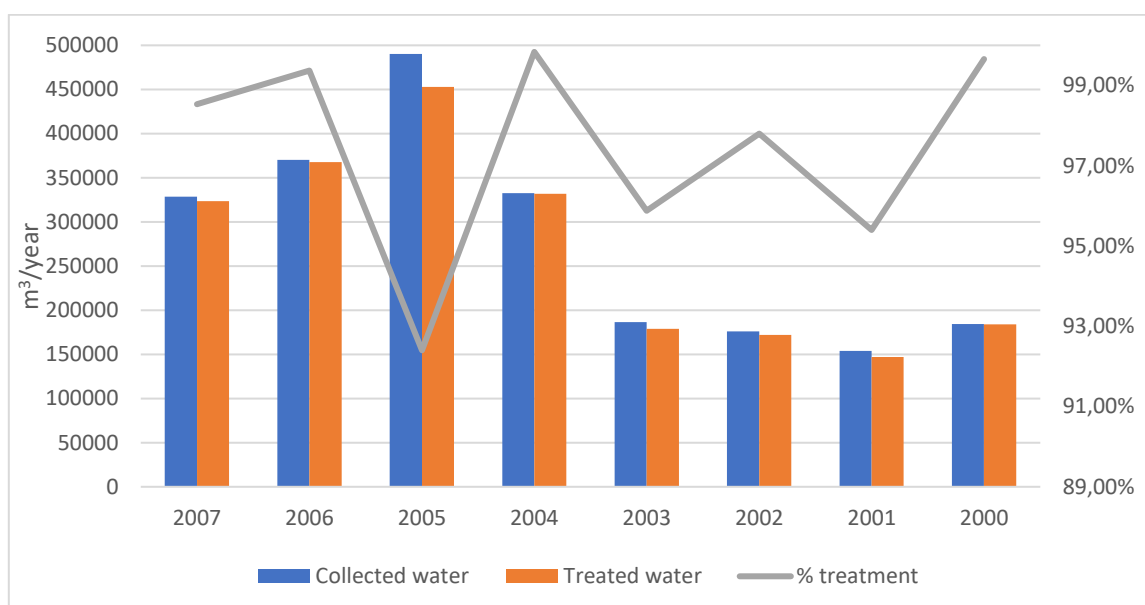


Figure 3.1. Volume of wastewater collected, treated and % of treated water for the period 2000-2007 (source: own based on IBESTAT).

Regarding the percentage of treated water that does not comply with the discharge requirements, in 2020 it was 1%, continuing with the clear improvement in relation to the non-compliance with quality in recent years, as can be seen in the table 3.2 . This breach is associated with 2 treatment plants: Llubí and Vilafranca<sup>5</sup>.

<sup>5</sup> At the Llubí WWTP, non-compliance occurred for 100% of the treated volume and at the Vilafranca WWTP for 44.86% of the treated volume. In the case of Llubí , it is believed that this may be due to the fact that the water arrives with a high contaminant load and that it does not meet the entry requirements, while in the case of Vilafranca it is due to the operation of the plant. It is worth mentioning that during 2021 improvements have been made in both treatment plants.

Table 3.2. Percentage of volume of water that does not meet discharge requirements (source: own based on ABAQA).

Year	% breach
2016	4.3
2017	8.5
2018	8.3
2019	1.0
2020	1.0

As for the number of hotels that have wastewater treatment systems, there is no information available, although we know that 4.4% of the hotels use water from a sewage treatment plant.

Another area of water cycle management is that of cruise ships. The International Cruise Association, under the acronym ABC (Above and Beyond Compliance), instructs cruise companies to go far beyond the quality criteria that the international maritime organisation allows in terms of discharges. It has been determined that on average between 180 and 230 litres of water are consumed per passenger per day<sup>6</sup>. A part of this water volume (over 60% in some cases) is obtained through the ships' own processes, that is, they guarantee a part of the consumption through self-supply. As for waste water, they have sanitation systems that usually distinguish between grey water and black water. Once treated and checked for quality, the water can be returned to the maritime environment or alternatively, sent to a reuse circuit.

Finally, with regard to the possible uses of treated water, these are indicated below on the basis of annex 1 of the PHIB:

Table 3.3. Permitted uses of reclaimed water (source: own based on the PHIB).

General use	Specific uses
Urban	Residential: irrigation of private gardens, flushing of toilets.
	Services: irrigation of green areas, street cleaning, fire, industrial washing of vehicles.
Agricultural	Irrigation of crops of fresh edible products for human consumption.
	Non-fresh products for human consumption, pastures for animal consumption, aquaculture
	Ligneous crops, ornamental flowers, nurseries, non-food industrial crops, industrial food crops
Industrial	Process and cleaning water, other industrial uses
	Cooling towers and evaporative condensers
Recreational	Irrigation of golf courses
	Ponds, circulating flows with public access prohibited
Environmental	Recharge of aquifers by percolation
	Recharge of aquifers by direct injection
	Irrigation of forests, green areas not accessible to the public, forestry
	Other uses: maintenance of wetlands, minimum flow rates

<sup>6</sup> blog.cruceum.com.



### **3.4. Punctual episodes of contamination**

Another aspect to assess for which information is currently not available is the number of contamination events in watercourses. However, according to data from the Balearic Islands emergency system, 117,741 calls were received in the 2020 activity report, of which 96,357 corresponded to the island of Mallorca. It is known that 4.17% of the calls to all the Balearic Islands were for questions related to the protection of nature. On the other hand, we have said that 1% of the treated water does not comply with the legal limits, which can generate punctual contamination problems.

### **3.5. Buildings not connected to the sanitation network and autonomous purification systems**

As for the buildings that are not connected to the sanitation network, the Hydrological Plan of the Balearic Islands (PHIB) does not allow untreated wastewater to be discharged into the ground and the protection of the public hydraulic domain must be guaranteed. It establishes that the purification must be carried out by means of an autonomous purification system or by means of a total storage with a sealed deposit.

In addition, annex 4 of the current PHIB-2019 describes a guide on autonomous wastewater treatments. Typical treatments, design, and installation of self-contained treatment systems are described. The guide is intended to be used by architects, engineers and installers and for the drafting and execution of installation projects for these wastewater treatment systems.

Finally, it should also be noted that in the program of actions of the current PHIB-2019 there is a program that, despite not being specific to tourism, can be used by the sector. Specifically, the action of program 5 regarding infrastructures (ACTUACIONES\_5e\_001) "Promotion of communities of users and/or companies for the exploitation of reclaimed water" could benefit and be used by tourist establishments with autonomous treatments.

## 4. ECONOMIC PROFITS OF THE DESTINATION

### 4.1. Introduction: weight of tourism in Mallorca's economy

According to the data on the number of companies registered with the Social Security collected in IBESTAT, in the third quarter of 2021 in all the Balearic Islands there are 11,956 companies in the tourism sector, which includes everything from hotels and restaurants to bars or travel agencies. The following table shows the number of companies in the tertiary sector and the tourism sector for the total of the Balearic Islands and for Mallorca.

Table 4.1. Number of companies in the Balearic Islands and Mallorca (source: own based on IBESTAT).

Economic sector	Subsector	Group	Balearic Islands	Mallorca	%
Total sectors			40,787	29,717	72,9%
Tertiary sector	Tourism sector	Accommodation Services	1911	1,205	63,1%
		Food and beverage services	6,699	4,728	70,6%
		passenger transport	1,802	1,068	59,3%
		Others: travel agencies, car rental, cultural activities...	1,544	1,097	71,0%
	Total tourism sector		11,956	8,098	67,7%
	Rest of the tertiary sector		19,774	14,779	74,7%
Total tertiary sector			31,730	22,877	72,1%
Rest of economy			9,057	6,840	75,5%

Figure 4.1 allows us to observe, in the case of the island of Mallorca, the distribution of companies between the tourism sector, the rest of the tertiary sector and the rest of the economy. It can be seen that the tourism sector represents 27% of companies in Mallorca and the tertiary sector as a whole represents 77% of companies.

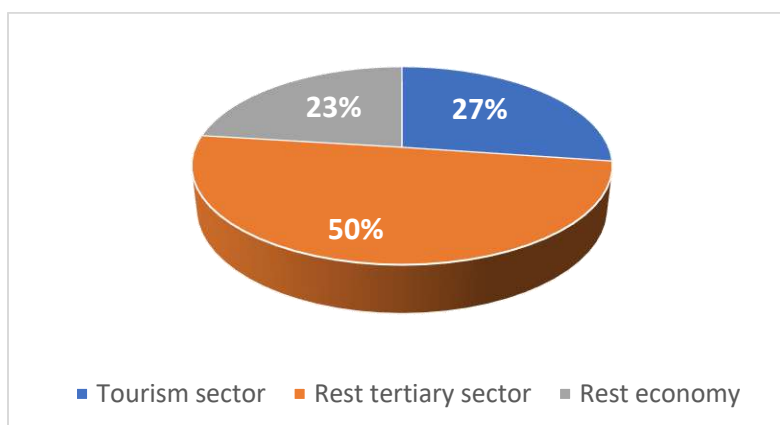


Figure 4.1. Percentage distribution of the main economic sectors in Mallorca (source: own based on IBESTAT).

## 4.2. Tourist flow in Mallorca and by origin

Analysing available data on tourist movements at borders (FRONTUR), from 2016 to November 2021, regarding the flow of tourists on the island of Mallorca, a total average of 35,832,260 overnight stays per year has been obtained.

Analyzing the data of monthly overnight stays during the 2016-2021 period and the total according to the main countries and areas of origin of tourists, it is observed that the month with the highest influx of tourists is August with more than 6,300,000 overnight stays. On the contrary, January is the one with the lowest influx of visitors, with just over 167,000 overnight stays.

Regarding the number of overnight stays by country of origin, Germany is clearly the majority country with more than 14,000,000 overnight stays/year, 41% of the total, followed by the United Kingdom with 21% of visitors; Spain and the rest of the European Union register 7% each, and 5% visitors come from France. The rest of the countries and regions all contribute less than 5% to tourist overnight stays. To graphically see the origin of tourists, figure 4.2 shows the contribution of the countries considered in table 4.2 in the total annual overnight stays on the island of Mallorca.

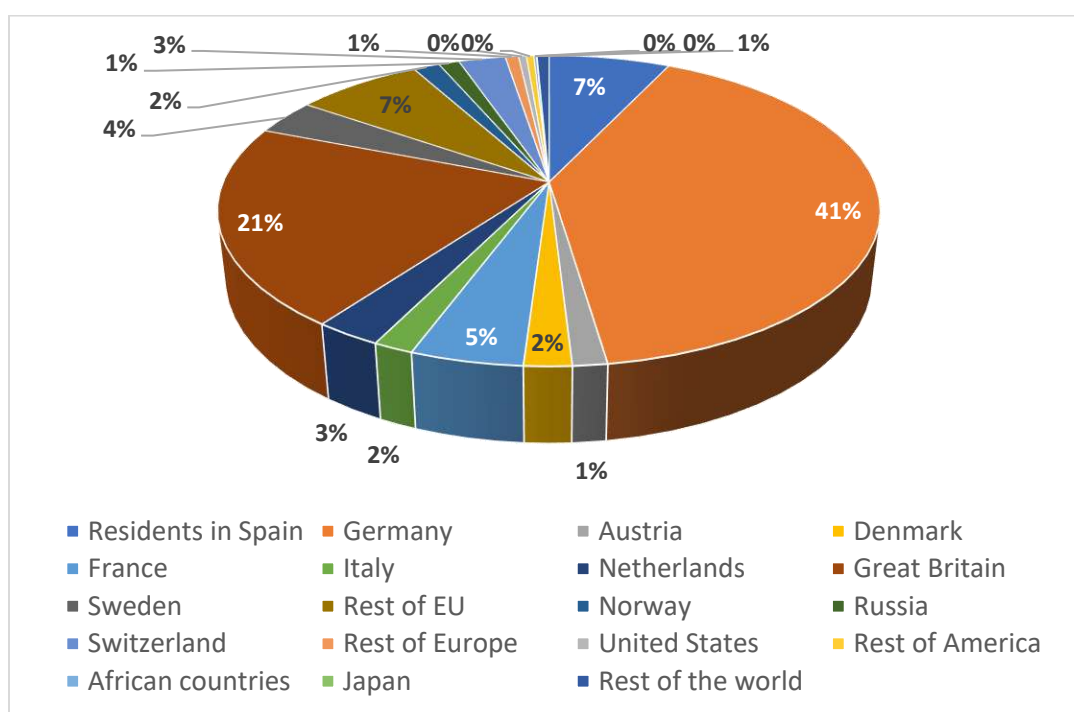


Figure 4.2. Contribution of the different countries and regions to tourist overnight stays in Mallorca (source: own based on IBESTAT).

However, it must be taken into account that the average number of overnight stays includes data from the last 2 years, including the disruption caused by the outbreak of Covid-19, which may have affected the foreseeable value. Comparing with the 2019 data, the average is between 15% and 36% lower.

Table 4.2. Summary of monthly overnight stays for the period 2016-2021 in Mallorca (source: own based on IBESTAT).

country/ region	January	February	March	April	May	June	July	August	September	October	November.	December	Total
Spain*	38,829	110,744	169,378	192,248	245,132	330,140	355,675	476,929	273,157	212,806	72,079	46,454	<b>2,523,571</b>
Germany	77,795	233,009	468,185	832,014	1,971,235	2,380,422	2,235,095	2,122,458	2,152,344	1,850,463	144,645	93,127	<b>14,550,793</b>
Austria	2,938	7,712	15,398	28,459	51,612	83,716	94,740	96,802	74,042	44,839	5,341	4,057	<b>509,655</b>
Denmark	872	3,497	9,257	30,619	80,945	108,151	185,956	116,157	88,595	73,703	1,563	1,250	<b>700,563</b>
France	3,374	5,604	9,056	82,792	214,106	231,728	289,907	425,157	235,625	153,708	7,220	4,103	<b>1,662,378</b>
Italy	2,430	2,389	4,562	12,274	32,765	82,893	134,217	211,883	85,680	19,641	3,369	2,021	<b>594,124</b>
Netherlands	1,710	4,213	8,479	48,310	136,999	136,586	197,162	227,897	136,023	88,168	2,774	1,623	<b>989,944</b>
United Kingdom	11,417	21,270	80,707	284,868	1,083,098	1,347,786	1,310,060	1,389,872	1,137,594	773,620	18,084	13,805	<b>7,472,178</b>
Sweden	3,073	4,867	16,884	56,453	215,223	260,650	231,085	222,224	197,088	104,332	7,481	4,467	<b>1,323,826</b>
Rest of the EU	9,674	13,579	25,634	99,605	279,913	437,254	545,909	576,349	433,440	189,694	14,837	8,329	<b>2,634,217</b>
Norway	1,261	2,763	5,921	26,613	70,026	115,127	135,651	79,518	66,785	44,947	1,783	797	<b>551,191</b>
Russia	1,097	788	1,857	5,363	32,261	86,842	98,736	99,154	79,778	21,718	867	567	<b>429,027</b>
Swiss	3,136	9,248	21,343	63,043	113,725	143,714	210,655	143,142	131,853	126,643	5,754	5,481	<b>977,735</b>
Rest of Europe	1,178	2,038	10,373	18,793	22,292	44,556	58,772	56,972	41,346	14,047	2,465	1,654	<b>274,484</b>
USA	1,465	2,113	4,262	11,333	18,934	25,210	32,178	26,851	21,305	14,482	3,130	2007	<b>163,270</b>
Rest of America	2,059	2,262	3,609	8,275	18,012	23,444	26,664	28,734	21,948	15,275	3,180	1,888	<b>155,349</b>
African countries	442	548	862	1,741	3,284	4,086	7,744	13,466	17,499	3,076	615	475	<b>53,383</b>
Japan	405	728	419	726	1,070	1,358	1,785	3,022	1,603	1,048	458	645	<b>13,268</b>
Rest of the world	4,310	3,539	5,585	13,632	27,396	34,159	52,585	51,580	30,663	19,932	4,585	4,883	<b>252,848</b>
<b>Total</b>	<b>167,463</b>	<b>420,909</b>	<b>861,771</b>	<b>1,817,158</b>	<b>4,618,027</b>	<b>5,877,821</b>	<b>6,204,575</b>	<b>6,368,165</b>	<b>5,226,366</b>	<b>3,772,140</b>	<b>300,230</b>	<b>197,634</b>	<b>35,832,260</b>

\*The data for Spain does not include the movements of individuals from within the Balearic Islands.

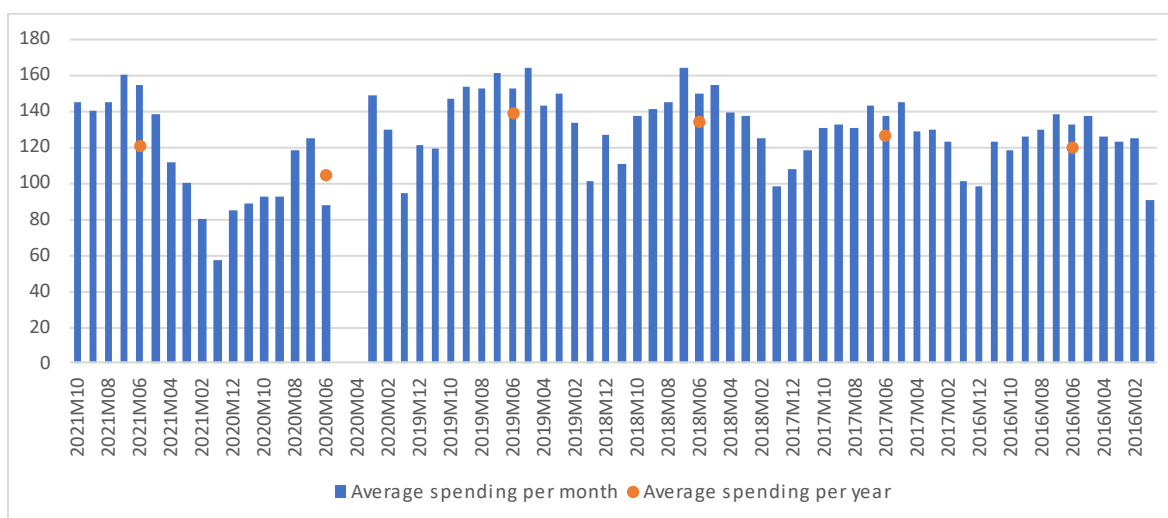
### 4.3. Income generated by tourism

According to the IMPACTUR 2014 study for the Balearic Islands carried out by *Exceltur*, tourism makes a total contribution to the GDP of the Islands of 44.8%. 44.8% is broken down into 32.9% of direct effects (activity directly related to tourism such as hotels, restaurants, travel agencies, car rental companies...), and 11.9% of indirect effects (activities that tourism induces on other sectors that are not directly touristic, such as agriculture, construction, food suppliers...).

According to IBESTAT data, the average daily expenditure per tourist in Mallorca is 126.55 euros/day, in the period from January 2016 to October 2021. The expenditure is not constant throughout the year and in the case of Mallorca it varies between 90.32 euros/day in January and 148.40 euros/day in August.

*Table 4.3. Average daily spending differentiating each month of tourists on the island of Mallorca for the period from January 2016 to October 2021 (source: own based on IBESTAT).*

Month	Daily average spending (€ / person)
January	90.32
February	119.29
March	131.47
April	129.73
May	147.80
June	135.55
July	148.40
August	136.84
September	130.85
October	128.46
November	112.08
December	107.77



*Figure 4.3. Comparison of the monthly and annual variation of the average daily expenditure (source: own based on IBESTAT).*

In addition, figure 4.3 also allows graphically observing the changes with the average daily spending of visitors throughout the year. It is observed that during the winter months it is lower than the rest of the year, and also that the daily expenditure is increasing, being in the summer months the months in which it is higher. The figure also shows that the average annual daily expenditure has a tendency to increase, although in 2020 it decreased significantly due to the pandemic, but with a clear recovery observed in 2021.

#### **4.4. Public income generated by tourism**

Through Law 2/2016, of March 30, the tax on tourist stays was developed. This tax is intended to endow the fund to promote sustainable tourism and acts on the economic capacity of the taxpayer, every individual, considering the number of stays, counted by days. It is applied in the following tourist establishments:

- a) Hotel accommodation establishments.
- b) Tourist apartments.
- c) Various kinds of rural tourism accommodation.
- d) Hostels and shelters.
- e) Hostels.
- f) Establishments operated by tourist-residential companies.
- g) Hostels, residence hostels, pensions, inns, guest houses and tourism camps or campsites.
- i) Holiday tourist homes, homes subject to the commercialization of tourist stays and homes subject to tourist commercialization subject to registration in accordance with the laws that regulate them.
- i) Rest of establishments and dwellings to which regional regulations classify as tourist.
- g) Dwellings subject to tourist marketing that do not meet the requirements established for this in the regional regulations and that, therefore, are not subject to registration in accordance with current tourism legislation.
- k) Tourist cruise boats when they stop at a port in the Balearic Islands.

With regard to public revenue from tourism business permits, licenses, etc., according to the IMPACTUR 2014 study, a total of 1,890 million euros were collected in the Balearic Islands related to tourist activity, which represents 40.4% of the taxes collected in the Balearic Islands. Of the 1,890 million collected, 976 million corresponded to taxes linked to production and products and services, while the collection dependent on other tax figures such as direct taxes (employees' personal income) and fees and other income accounted for 914 million of euros.

#### **4.5. Performance of tourism companies**

According to the data provided by IBESTAT for the period from January 2016 to October 2021, the average stay of tourists in Mallorca is 7.2 days. However, analyzing the variation in tourist stays, it is observed that they vary between 6.3 days in May and 8.1 days in August on average.

Table 4.4 shows the data collection for the period studied and the monthly average of the stays. A similar variation is observed throughout the year with a maximum of days of stay in summer. The

monthly average of stays decreases the rest of the year with the minimum of days of stay between the months of February-March-April, depending on the year.

Regarding the occupation of tourist accommodation, the analysis is carried out with data from the IBESTAT referring to hotels, apartments, rural tourism and campsites. Table 4.5 shows the degree of occupancy in percentage for each type of accommodation considered in the period from January 2016 to October 2021, and the monthly average.

*Table 4.4. Compilation of data on the average stay of tourists in the period January-2016 to Oct.-2021 (source: own based on IBESTAT).*

Month	Average stay
January	8.2
February	6.7
March	6.4
April	6.7
May	6.3
June	7.0
July	7.3
August	8.1
September	7.8
October	7.5
November	7.2
December	7.6

*Table 4.5. Average occupancy level of tourist accommodation throughout the year for the period from January 2016 to October 2021 (source: own based on IBESTAT).*

	Month	Hotel	Apartment	Rural T.	Campsites
Average 2016-2021	1	33.3	21.3	15.0	-
	2	43.1	29.0	22.8	-
	3	46.0	35.9	27.2	-
	4	50.6	34.0	37.7	-
	5	66.0	48.6	46.3	19.8
	6	76.6	59.4	54.2	29.2
	7	77.5	64.7	55.4	46.7
	8	78.4	67.5	60.6	58.0
	9	70.1	56.2	52.2	30.3
	10	57.6	43.5	40.9	35.6
	11	42.8	31.5	22.3	-
	12	36.7	31.7	18.9	-
Average		56.5	43.6	37.8	36.6

Looking at the average annual data, as a general rule it can be said that hotels are the accommodation with the highest occupancy rate, reaching a figure of 56.5%, followed by apartments with an occupancy rate of 43.6%. In parallel, rural accommodation registers an

occupancy of 37.8%. Lastly, in campsites we observe an occupancy of 36.60% that they are closed from November to May.

On the other hand, as can be seen in table 4.5 and figure 4.4 , the occupancy rate is not constant throughout the year, although the hotels have a higher occupancy rate. The occupancy rate in hotels varies between 33.28% in January and 78.35% in August; in the case of apartments, it varies between 21.34% in January and 67.54% in August; for rural tourism accommodation, the variation goes from 14.99% in January to 60.56% in August; finally, in the case of campsites, the occupancy rate varies between 19.83% in May and 57.98% in August.

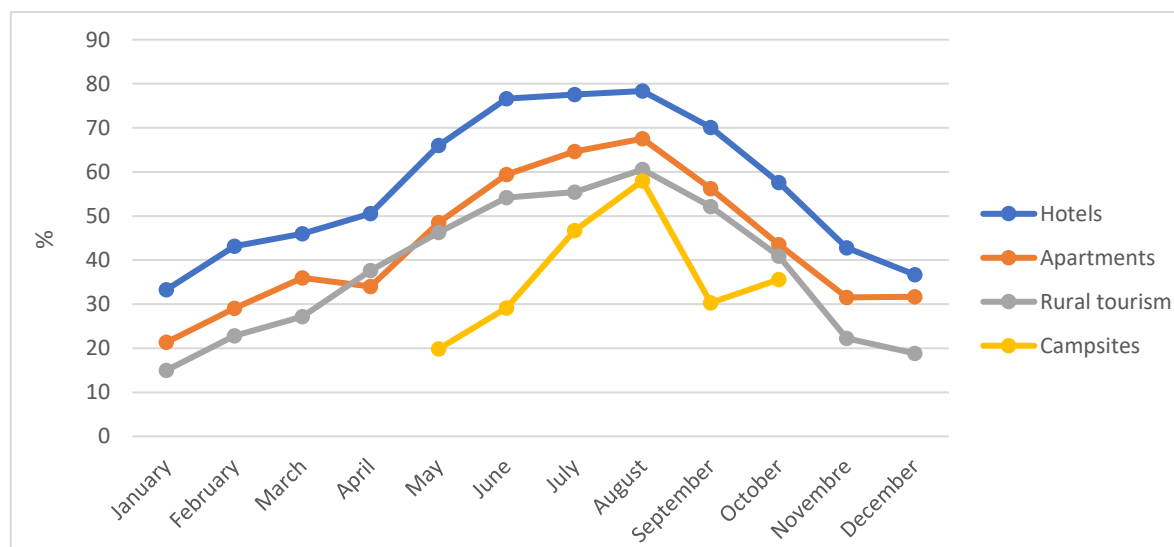


Figure 4.4. Degree of occupancy throughout the year of the main types of tourist accommodation (source: own based on IBESTAT).

#### 4.6. Vitality of the tourism sector

Regarding the vitality of the tourism sector, it is important to analyze the type of companies within the tourism sector and the size. In this case, table 4.6 shows the set of tourism companies for the year 2020 according to the IBESTAT.

Table 4.6. Compilation of data from companies in the tourism sector according to type of company and size (source: own based on IBESTAT).

	Tertiary sector	Accommodation Services	Food and beverage services	Transport passengers	Travel agencies, car rental...
Total number	18590	2325	8354	2766	5145
without employees	39.09%	35.18%	28.54%	36.80%	59.22%
From 1 to 2	34.12%	29.76%	35.96%	52.68%	23.11%
from 3 to 5	14.45%	14.19%	21.30%	5.17%	8.45%
from 6 to 9	5.53%	7.01%	7.21%	1.95%	4.06%
from 10 to 19	3.43%	4.65%	4.29%	1.45%	2.57%
From 20 to 49	2.01%	3.87%	2.27%	0.90%	1.34%



From 50 to 99	0.42%	1.46%	0.23%	0.40%	0.27%
From 100 to 199	0.51%	2.02%	0.16%	0.36%	0.49%
From 200 to 499	0.34%	1.46%	0.06%	0.25%	0.35%
From 500 to 999	0.05%	0.22%	0.00%	0.04%	0.08%
From 1000 to 4999	0.03%	0.13%	0.00%	0.00%	0.06%
5000 or more	0.01%	0.04%	0.00%	0.00%	0.00%

In general, it is observed that the majority type of company is food and beverage service companies (8,354 companies), followed by companies of other activities related to tourism (5,145 companies).

In terms of size, they are mostly small companies without employees or with 1 or 2 employees, representing between 83% and 63%. Analyzing table 4.6 , it can be seen that the largest companies are those related to accommodation services, since it is the only type of company where establishments with more than 50 employees exceed 5% of the companies.

To measure the vitality of the sector, it is also interesting to know the birth rate of companies and establishments. In order to determine the birth rate of companies, the number of companies and establishments since 2010 have been sourced from IBESTAT. The figures respond to the scope of the Balearic Islands. In parallel, the increase or decrease of companies and establishments in the tourism sector has been calculated. The data in table 4.7 show all-time highs in 2020.

*Table 4.7. Number of companies and establishments linked to tourism in the Balearic Islands for the period 2010-2020 (source: own based on IBESTAT).*

	Number of companies	Number of establishments
2010	16,420	19,034
2011	16,180	18,761
2012	16,113	18,713
2013	16,141	18,822
2014	16,055	18,841
2015	16,396	19,291
2016	16,727	19,717
2017	17,518	20,683
2018	18,154	21,556
2019	18,215	22,192
2020	18,590	22,658

Finally, figure 4.5 graphically shows the annual variation of companies and establishments. Apparently, in the case of companies, the annual variation is positive except in the years 2011, 2012 and 2014, with a maximum positive variation of 4.73% in 2017. As for establishments, the annual variation is also negative for the years 2011 and 2012 and the greatest positive variation was also in the year 2017 with a variation of 4.90%.

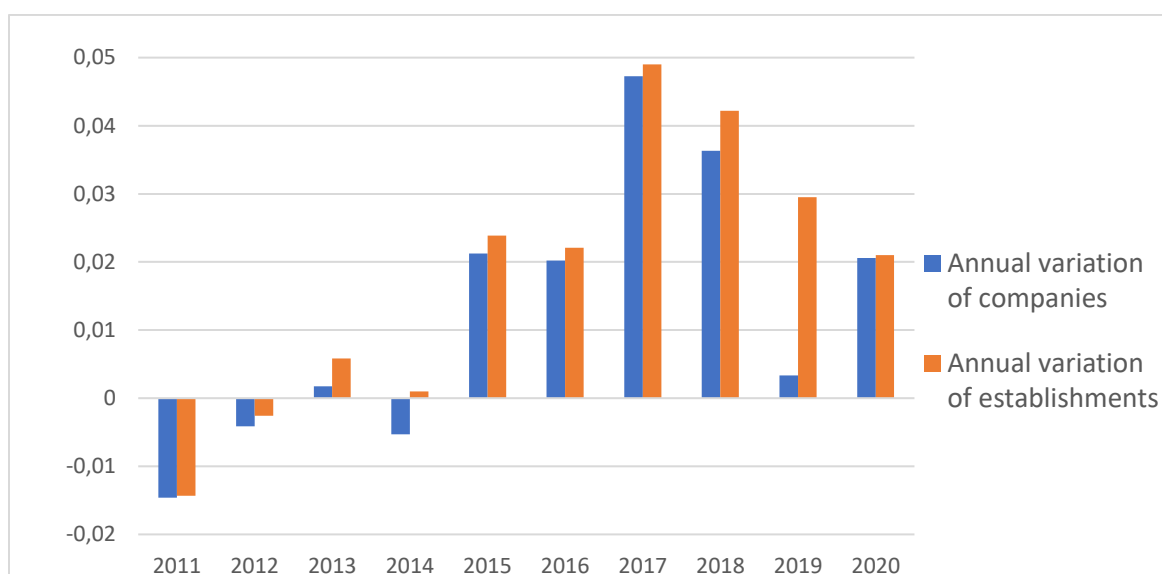


Figure 4.5. Annual variation in the number of companies and establishments in the Balearic Islands (source: own based on IBESTAT).

#### 4.7. Benefits of the tourism sector

Another aspect to take into account is the profits of tourism companies. Due to the fact that there are no exact data available, the data available in IBESTAT for the period from 2016 to 2019 in relation to operating income and expenses and investments in tangible assets by the tourism sector of all the Balearic Islands have been used. In order to determine the profit, the difference between income, expenses and investments has been calculated.

Table 4.8 shows the data referring to income, expenses and investments in thousands of euros, while figure 4.6 shows the evolution of the benefits of tourism.

Table 4.8. Income, expenses and investments in tangible assets for the period 2016-2019 in all the Balearic Islands. Data in thousands of euros (source: own based on IBESTAT).

	Operating income	Operating expenses	Investments in tangible assets
2016	15,001,473.10	13,608,161.80	710,911.70
2017	17,095,828.40	15,457,798.20	786,632.00
2018	18,038,892.30	16,529,109.00	917,656.30
2019	18,597,539.60	17,049,855.70	788,095.80

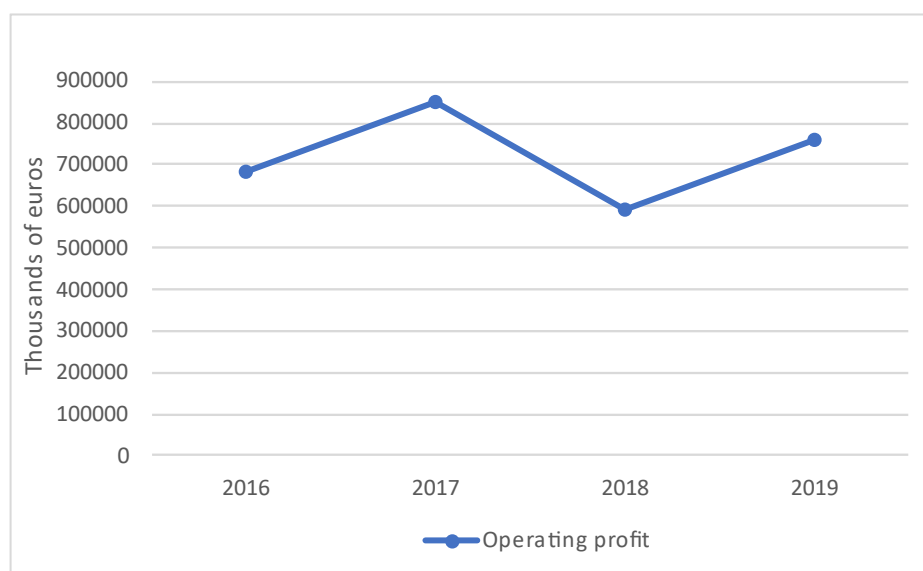


Figure 4.6. Operating profits for the tourism sector in the Balearic Islands (source: own based on IBESTAT).

Finally, another aspect to consider is the rate of increase in operating income throughout the period. Table 4.9 shows the operating income in thousands of euros for the entire tourism sector of the Balearic Islands and the rate of change. It is observed that it decreases over the years.

Table 4.9. Operating income in thousands of euros and rate of increase in income with respect to the previous year of income in percentage (source: own based on IBESTAT).

	Operating income	Rate of increase
2016	15,001,473.10	-
2017	17,095,828.40	13.96%
2018	18,038,892.30	5.52%
2019	18,597,539.60	3.10%

#### 4.8. Impact of tourism on local income

To assess the impact of tourism on local income and due to lack of data, it has only been possible to compare the impact of tourism with the income of the commerce and tertiary sector. As can be seen in figure 4.7, the contribution of the tourism sector in the Balearic Islands registers around 45% of the total income of the trade and tertiary sector, during the period from 2016 to 2019. Tourism income reaches between 15,000,000 and 18,600,000 euros in the period examined.

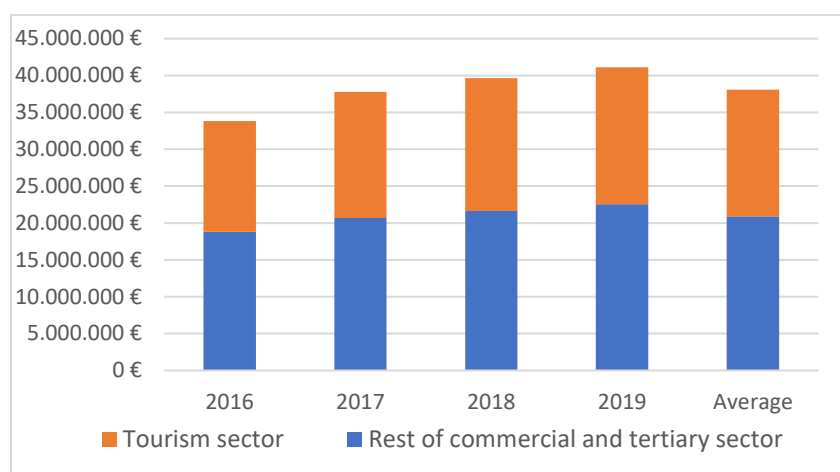


Figure 4.7. Income from the tourism sector and other sectors of commerce and tertiary (source: own based on IBESTAT).

Another useful aspect to assess the impact of tourism on local income is the contribution of the tourism sector to the total gross value added (GVA). In this case, comparing the tourist industry with the rest of the industries of the Balearic Islands, the tourist sector contributes 22% of the GVA of the Balearic Islands.

Table 4.10. Summary of the GVA of the tourism sector and % GVA of the rest of the Balearic Islands (source: own based on IBESTAT).

Branches of economic activity	GVA	% GVA / GVA Balearic Islands
Visitor accommodation	2,638,588	10.8%
Food and beverage supply industry	1,081,065	4.4%
Land passenger transport	236,853	1.0%
Maritime passenger transport	61,327	0.3%
Passenger air transport	267,387	1.1%
Rental of cars and light motor vehicles	148,569	0.6%
Travel agencies and other reservation services	252,259	1.0%
Cultural industry	189,818	0.8%
Sports and recreation industry	573,845	2.4%
<b>Total tourism industry</b>	<b>5,449,711</b>	<b>22.4%</b>
<b>Other industries</b>	<b>18,930,548</b>	<b>77.6%</b>
<b>Total Balearic Islands</b>	<b>24,380,259</b>	<b>100%</b>

#### 4.9. Competitiveness of tourism companies

To assess the competitiveness of tourism companies, the average daily rate per tourist room in the 2016-2020 period and the average and income per available room for the same period in Mallorca have been analysed.

Figure 4.8 shows that the average daily rate varies between 82.4 and 100.1 euros, while revenue per room varies between 79.8 and 36.7 euros per room from 2019 to 2020. However, it must be underlined that 2020 data is affected by COVID-19 and the

subsequent decrease in tourism, so, although the average rate is similar to that of other years, the income per room is lower.

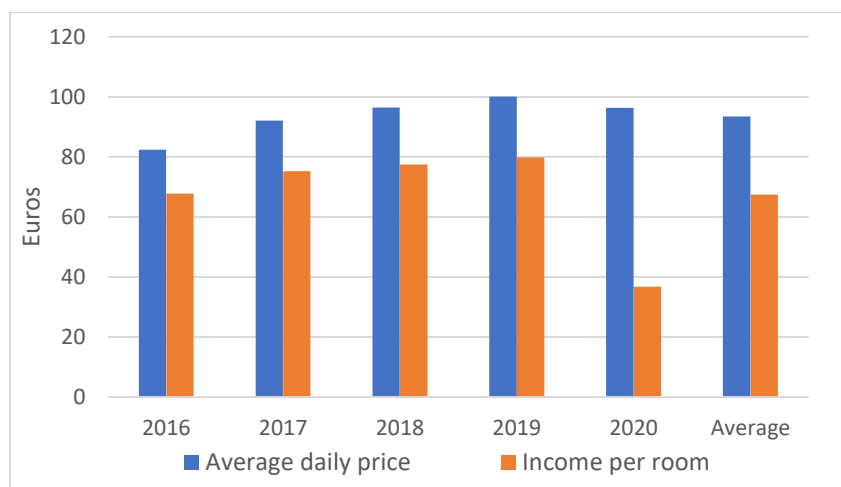


Figure 4.8. Average daily room rate and income per available room in Mallorca for the 2016-2020 period (source: own based on IBESTAT).

## 5. SEASONALITY

### 5.1. Degree of seasonality

The degree of tourist seasonality can be measured in different ways and taking into account different aspects, such as the arrival of tourists according to the time of year, the offer of accommodation and the number of employed persons. It is possible to calculate the Gini coefficient and thus obtain a value (0-1) that indicates the degree of seasonality of an area. The closer to 0 indicates that the flow of tourists is more evenly distributed throughout the year, that is, seasonality is lower. Conversely, the higher the coefficient, the greater the seasonality.

According to Coll Ramis (2016), who studied the seasonality of tourism in the Balearic Islands in the period 2000-14, applying the calculation of the aforementioned coefficient, the seasonality on the island of Mallorca, despite not being negligible, was less marked than in the rest of the islands. The corresponding Gini value was 0.353 (Mallorca) versus 0.465 (Balearic Islands). It should be noted that, for the 2016-2019 period, the AETIB, applying the same coefficient, estimated it at a range between 0.40-0.43 (Mallorca) versus a range value of 0.47-0.49 (Balearic Islands). The following table of this study provides data percentage of tourist arrivals by season for the period 2000-2014 in Mallorca.

*Table 5. Seasonality in Mallorca for the period 2000-2014 (source: own, from Coll Ramis, 2016 <sup>7</sup>).*

Season	Percentage of tourists arriving (%)
Short	9.56
Half	32.38
high	58.04

An important factor to assess the degree of seasonality is tourist arrivals throughout the year and to know if there are changes in tourist arrivals depending on the time of year. Table 5.2 shows the average monthly arrivals of tourists to Mallorca for the period January-2016 to November-2021.

*Table 5.2. Tourist arrivals to the island of Mallorca for the period January-2016 to November-2021 and monthly average (source: own based on IBESTAT).*

Month	Arrivals	Percentage
January	162,348	1,8%
February	199,084	2,2%
March	339,587	3,8%
April	649,146	7,2%
May	971,831	10,8%
June	1,205,487	13,3%
July	1,543,250	17,1%
August	1,491,260	16,5%
September	1,220,477	13,5%
October	893,153	9,9%

<sup>7</sup>Coll Ramis, MA (2016). Socio-spatial analysis of tourist seasonality in Mallorca. Doctoral Thesis, UIB.

November	198,611	
December	161,245	

In addition, figure 5.1 shows the distribution of tourist arrivals throughout the year for that period. The tendency to a progressive increase is seen from January to July, July being the month with a maximum arrival, to go down later until December. The figure also indicates that the trend is similar over the years, although in 2020 the effect of the Covid-19 pandemic is noticeable. In 2021, still under the effects of the pandemic, it has not followed its usual trend either.

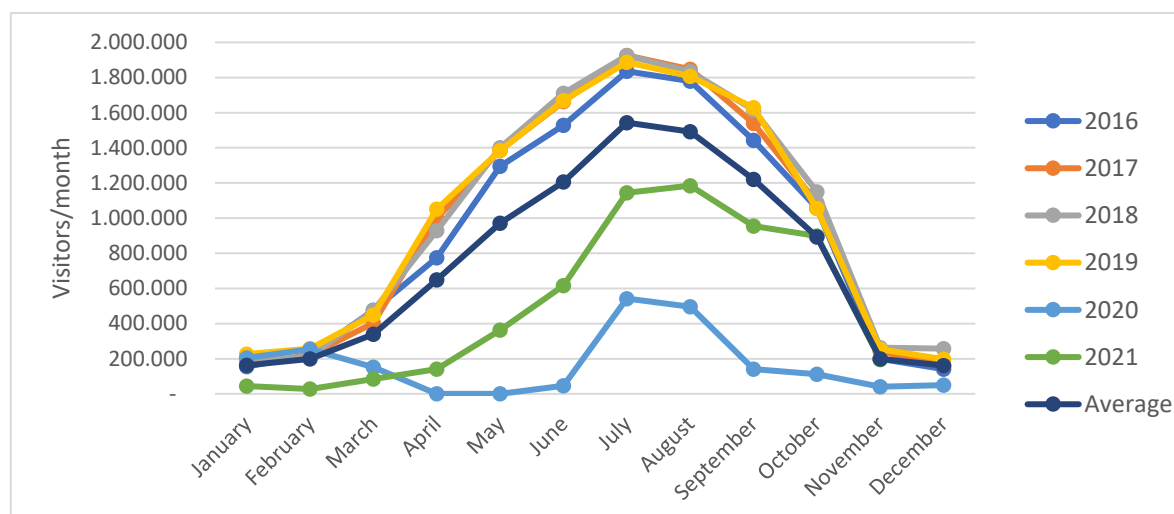


Figure 5.1. Distribution of the arrival of tourists to Mallorca for the period from 2016 to 2021 (source: own based on IBESTAT).

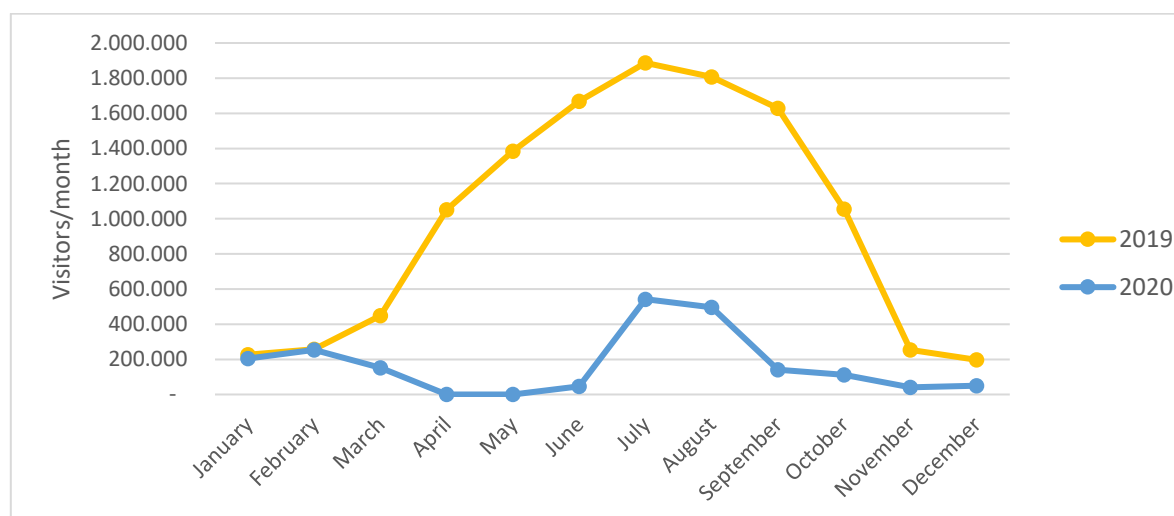


Figure 5.2. Distribution of the arrival of tourists to Mallorca in the years 2019 and 2020 where the impact of Covid-19 is observed (source: own from IBESTAT).

In the analysis of the degree of seasonality and once the months with the maximum arrival of tourists have been clarified, it is interesting to see the month and the quarter with the maximum arrivals. Figure 5.3 shows the percentage of tourist arrivals each month with respect to the total for the year, July being the month with a maximum number of tourist arrivals, representing 17% of

the annual total, followed by August with 16% . By quarters, the third (July-August-September) represents 47% of the total arrivals, which is equivalent to saying that it practically accounts for half of the arrivals. The figure also shows that from November to February (both included) tourist arrivals decreased very significantly with a contribution of around 2% each of these months.

Finally, in the analysis of the degree of seasonality, it is important to analyze the degree of occupancy of tourist accommodation services. As highlighted in the following table and figure, the month with the highest occupancy rate is August for all types of accommodation, followed by July, with the third quarter (July, August and September) being the main one by far in all cases.

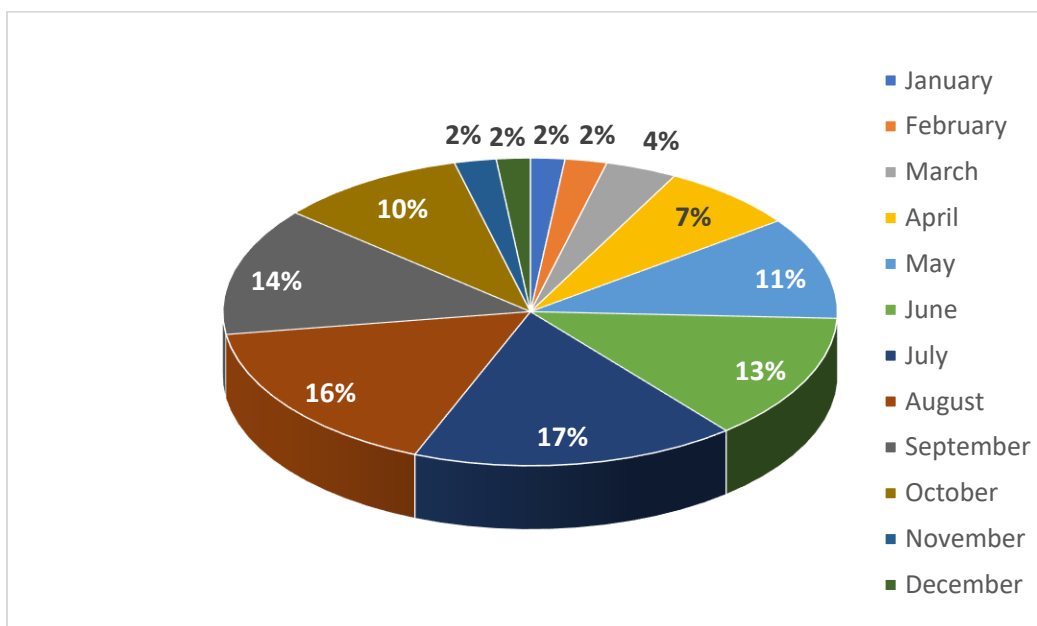


Figure 5.3. Contribution of each month to the total tourist arrivals to the island of Mallorca throughout the year (source: own based on IBESTAT).

Table 5.3. Occupancy rate (in %) of tourist accommodation services per month and quarter (source: own based on IBESTAT).

Month	Hotel	Apart .	Rural T.	Campsites	Trimester	Hotel	Apart .	Rural T.	Campsites
January	33.28	21.34	14.99	-	1st	40.81	28.77	21.66	-
February	43.14	29.03	22.83	-					
March	46.01	35.94	27.16	-					
April	50.57	33.98	37.66	-	2nd	64.39	47.31	46.03	16.33
May	66.01	48.55	46.29	19.83					
June	76.59	59.39	54.15	29.15					
July	77.53	64.65	55.43	46.74	3r	75.32	62.80	56.06	45.01
August	78.35	67.54	60.56	57.98					
September	70.07	56.22	52.18	30.31					
October	57.61	43.50	40.86	35.62	4th	45.67	35.57	27.32	11.87
November	42.76	31.51	22.26	-					
December	36.65	31.69	18.85	-					



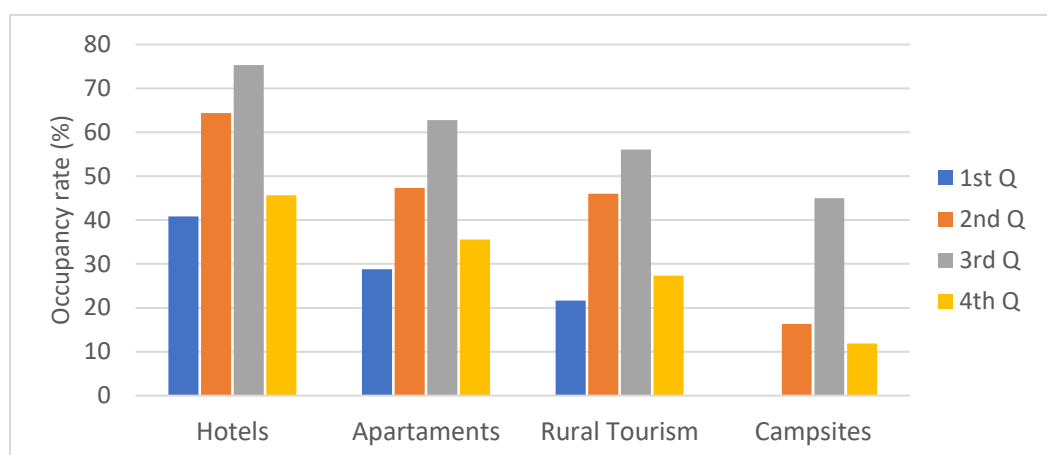


Figure 5.4. Occupancy rate of tourist accommodation for the different quarters of the year (source: own based on IBESTAT).

## 5.2. Reinforcement of the mid and low tourist season and low season tourism

Although it does not have specific data on the part of the budget that the tourist authority allocates to promoting the medium and low tourism seasons, the PIAT of Mallorca proposes a series of actions to rationalize the seasonal distribution of tourist activity and diversify it:

- Promotion of sports and sustainable tourism through cycle routes, hiking path...
- Promotion of cultural tourism in relation to places of interest for culture in general, cinema, artistic and historical heritage or consolidated cultural activity (specifically the cultural route based on Ramon Llull). Tourism related to gastronomy and local agri-food products, nature or environmental features of Mallorca.
- Regulation of complementary (tourist) facilities (golf courses, racing circuits, sports tracks, water parks, roadside museums, etc.). These complementary tourist facilities will have to prove their capacity as an instrument for diversifying and qualifying the tourist offer.
- Endowments at the service of nautical tourism.

There is also no specific information on facilities that offer activities in mid and low season. In any case, with regard to cultural events and activities of a very diverse nature, you can consult the Catalogue of Cultural Activities of the Council of Mallorca<sup>8</sup>. Also depending on the Council, the annual agenda of the website <http://www.infomallorca.net>, includes many of the scheduled events, dividing them into three types: traditional fairs; main popular and traditional festivals; and main cultural events. Figure 5.5 shows the number of each of the types of events throughout the year where it is seen that the traditional fairs are concentrated in autumn (8) and spring (5); the main popular and traditional festivals are concentrated in summer (9); and the main cultural events are concentrated in summer (22) and autumn (20).

<sup>8</sup> [web.conselldemallorca.cat/es/catalogo](http://web.conselldemallorca.cat/es/catalogo).

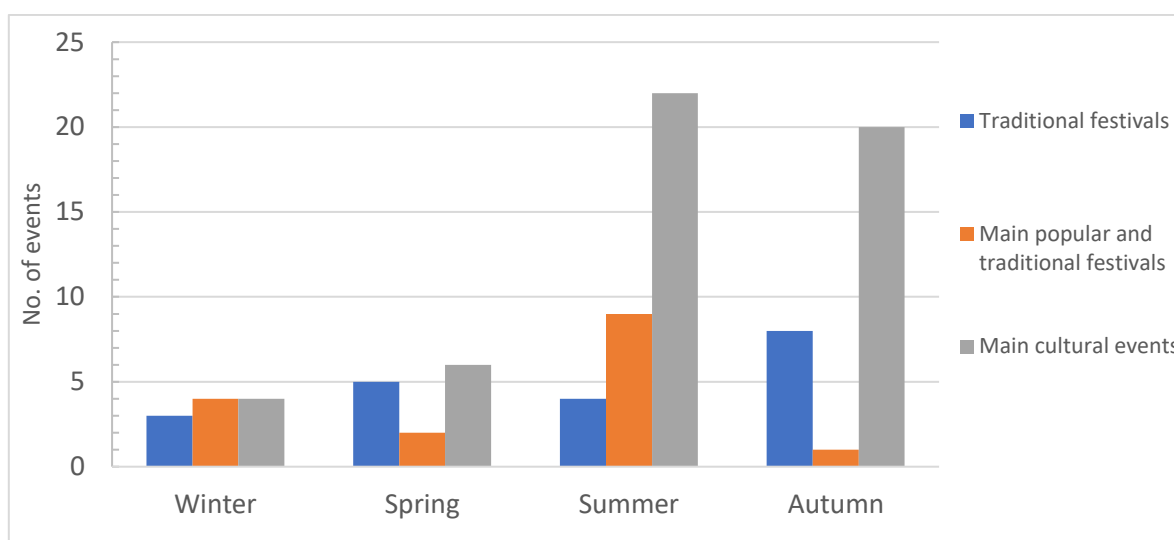


Figure 5.5. Main cultural events on the island of Mallorca scheduled for the year 2022 (source: own from the infomallorca.net web portal).

### 5.3. Provision of sufficient infrastructure, services and products throughout the year

Regarding information on accommodation and services related to tourism open all year round, partial information was found regarding the number of accommodations by type and months of the year in which they remain open. Table 5.4 shows this information for the period January-2016 to November-2021 based on the monthly average of the period.

Table 5.4. Average of tourist accommodation open month by month for the period from January 2016 to November 2021 (source: own based on IBESTAT).

	Month	hotel	Apart .	Rural T.	Campsites
Half	January	89	17	113	0
	February	142	twenty	147	0
	March	217	27	190	0
	April	336	72	248	0
	May	744	240	3. 4. 5	7
	June	824	266	364	8
	July	784	255	364	8
	August	803	258	370	8
	September	766	243	356	7
	October	642	197	322	3
	November	133	twenty	144	0
	December	99	19	125	0

In addition, figure 5.6 shows the average monthly trend for each type of accommodation and shows that the annual minimum number of open companies is in January: 89 hotels; 17 apartments; and 113 rural lodgings. This is equivalent to the fact that in January only 10.8%, 6.3% and 30.9% of establishments of each type were open, respectively <sup>9</sup>.

<sup>9</sup> For unknown reasons, the campsites (a modality not very present on the island) are closed all year round.

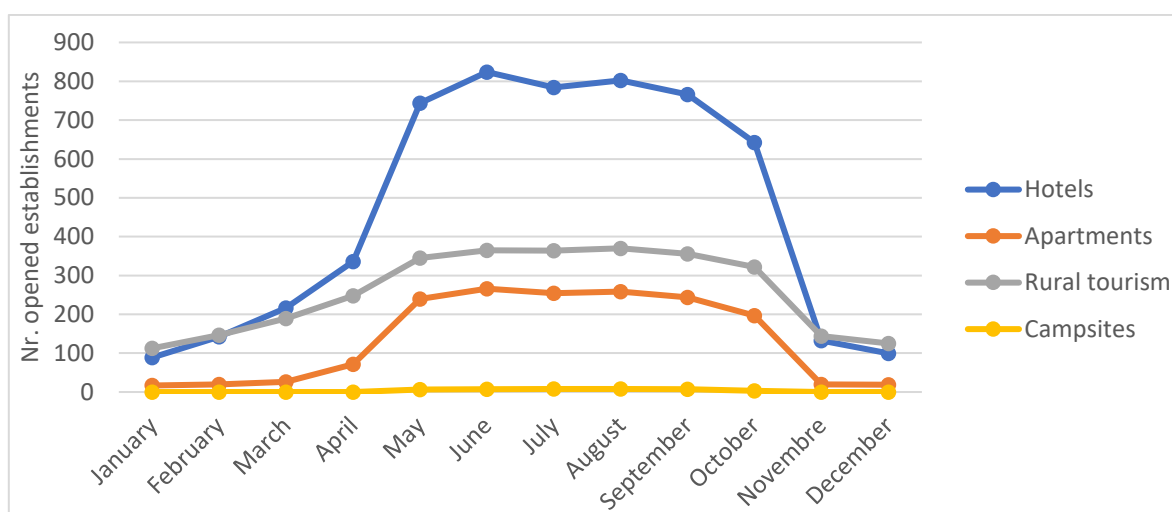


Figure 5. 6. Annual distribution of the number of open establishments by type of accommodation (source: own based on IBESTAT).

#### 5.4. Seasonality and employment

The data on social security affiliates for the total economy and for tourism in Mallorca and the data for employed persons both for the total economy and for tourism for all the Balearic Islands show a similar interannual variation. However, there is a divergent peak: in Mallorca the 2nd quarter is the one with the highest number of affiliates and the 4th the lowest, while in the Balearic Islands as a whole the peak of employment occurs in the 3rd quarter, the first being the one with the least amount of employed individuals.

Table 5.5. Summary of data on social security affiliates and those employed in tourism with respect to the total economy (source: own based on IBESTAT).

Period (year and quarter)		Affiliated to social security - Mallorca			Employed – Balearic Islands		
		Total economy (n)	Total tourism (n)	% tourism vs total	Total economy (n)	Total tourism (n)	% tourism vs total
Average 2016-2021	T1	361,979	81,285	22.46	498,400	106,283	21.32
	T2	422,911	130,726	30.91	554,833	147,850	26.65
	T3	417,359	126,906	30.41	597,300	179,667	30.08
	T4	340,076	61,186	17.99	536,380	129,380	24.12

Figure 5.7 compares the percentage of affiliates in tourism social security and the employed. The figure shows that the percentage of affiliates to the tourism social security is higher than that of employed persons for the first three quarters, but in the fourth quarter the percentage of employed in tourism is higher.

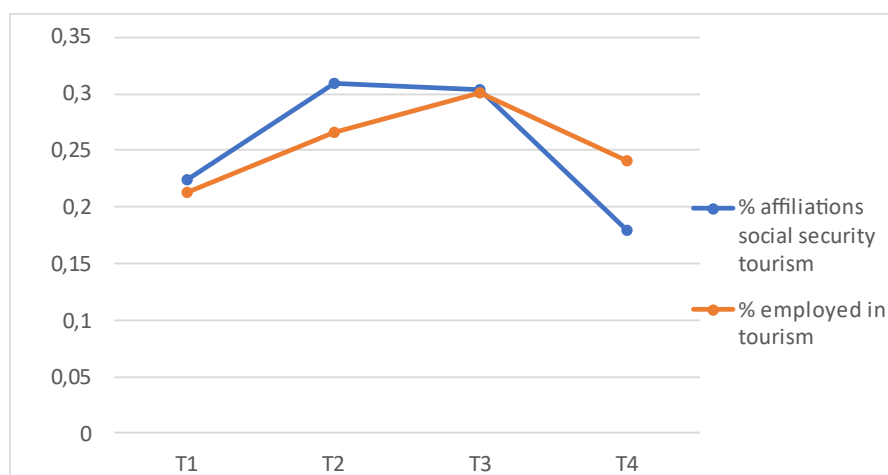


Figure 5. 7. Comparison between the % of social security tourism affiliates and % of employed in tourism (source: own based on IBESTAT).

Lastly, the rate of unemployed in the tourism sector must be taken into account, but, depending on the time of year. Since there are no specific data for Mallorca, data for all the Balearic Islands have been used, which are those available in IBESTAT. Clearly, the quarter with the highest rate of unemployed in the tourism sector, is the first quarter of the year with an average of 41.75%. In contrast, the third quarter registers the lowest value, a rate of 9.63%, coinciding with the high season.

Table 5.6. Calculation of the percentage of unemployed in the tourism sector for the period 2016-2021 in the Balearic Islands (source: own based on IBESTAT).

Trimester	Percentage of unemployed (%)
1Q	41.75
2T	20.62
3T	9.63
4T	23.46

The analysis focuses also on how the unemployed rate is changing for each quarter throughout the 2016-2021 period. As observed, there is a similar dynamic, with maximum rates for the first quarter and minimum for the third. Likewise, it can be seen how these differences between maximum and minimum are greater over time and highlights the distorting effect of COVID-19 from the second quarter of 2020.

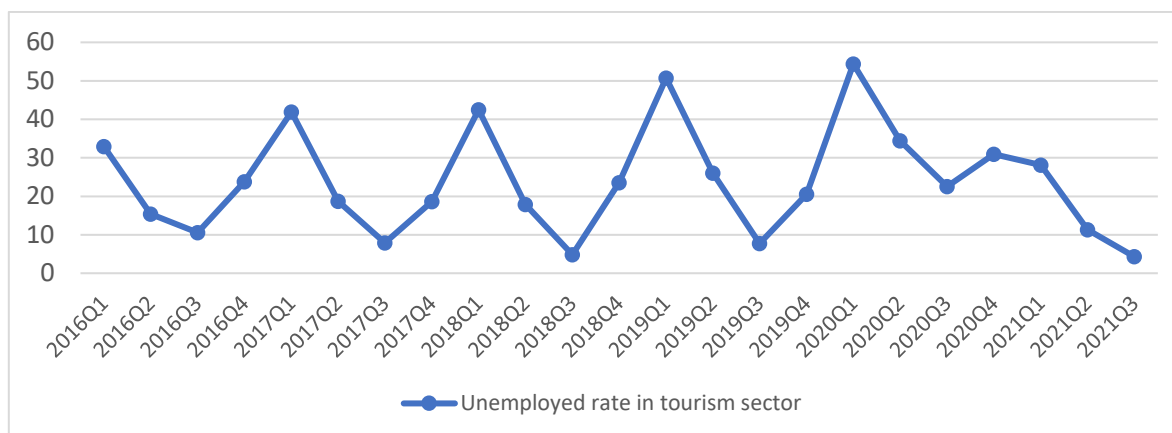


Figure 5.8. Quarterly evolution of the unemployed rate in tourism for the period 2016-2021 (source: own based on IBESTAT).

## 6. EMPLOYMENT

### 6.1. Employment: quantity and quality

Occupation in the tourism sector is a basic vector for understanding the true dimension of this activity within the economic and social configuration of Mallorca. To evaluate the quantity and quality of employment, it is necessary to know the number and percentage of employees in the different tourism sectors with respect to the total number of employed individuals in the Balearic Islands.

The following table shows the collection of data on social security affiliates in Mallorca for the period 2016-2021, differentiating between the tourism sector with its different subsectors and with respect to the total economy.

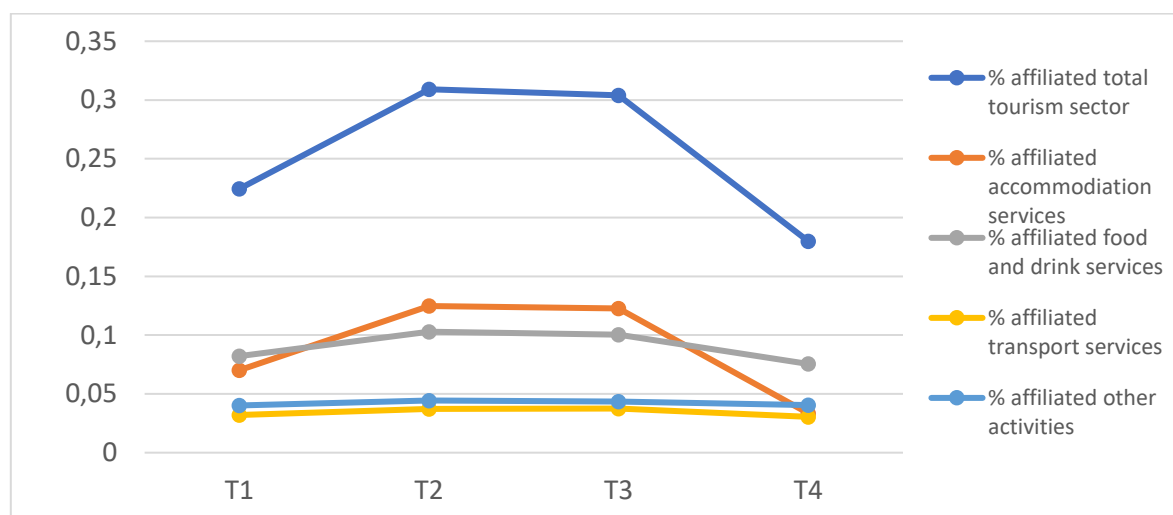
*Table 6.1. Compilation of data on affiliation to social security in Mallorca for the period 2016-2021 for the total economy and the tourism sector for each subsector (source: own based on IBESTAT).*

Year and quarter		Total economy	Tourism sector					
			Total		accommodation	Food and beverage services	passenger transport	Other tourist activities
2016	T1	342,081	82,317	24,1%	26,629	30,695	11,228	13,765
	T2	405,227	132,595	32,7%	53,865	44,965	15,563	18,202
	T3	395,496	125,133	31,6%	50,459	42,158	15,207	17,309
	T4	322,600	59,565	18,5%	10,901	25,829	9,748	13,087
2017	T1	359,801	85,863	23,9%	28,555	30,960	11,772	14,576
	T2	428,128	141,419	33,0%	58,292	47,244	16,152	19,371
	T3	424,128	137,585	32,4%	56,759	45,705	16,304	18,817
	T4	337,190	62,304	18,5%	11,970	26,477	10,181	13,676
2018	T1	378,877	92,733	24,5%	31,747	33,482	11,961	15,543
	T2	445,289	145,800	32,7%	59,448	48,500	16,754	21,098
	T3	436,774	140,639	32,2%	57,647	46,092	16,591	20,309
	T4	347,480	64,043	18,4%	12,111	26,626	10,809	14,497
2019	T1	383,803	90,260	23,5%	29,569	32,293	12,313	16,085
	T2	453,416	146,579	32,3%	59,468	48,354	17,215	21,542
	T3	438,670	137,921	31,4%	56,111	44,745	16,799	20,266
	T4	353,390	65,085	18,4%	12,294	27,068	11,065	14,658
2020	T1	363,632	78,096	21,5%	23,783	27,809	12,019	14,485
	T2	393,128	105,511	26,8%	40,729	35,046	13,701	16,035
	T3	392,605	103,119	26,3%	39,709	34,117	13,836	15,457
	T4	339,720	54,934	16,2%	9,726	22,358	10,038	12,812
2021	T1	343,677	58,440	17,0%	12,203	22,936	10,530	12,771
	T2	412,278	112,454	27,3%	44,712	36,988	14,361	16,393
	T3	416,253	117,041	28,1%	46,236	38,860	15,262	16,683

On the other hand, the following table shows a summary of the affiliation data shown in the previous table, but with the percentage represented by each subsector and the total of the tourism sector with respect to the total of the economy. The figures are also shown graphically in the figure that follows the table.

*Table 6.2. Compilation of the average number of affiliates per quarter and sector of the economy and percentage of each subsector over the total economy for the period 2016-2021 (source: own based on IBESTAT).*

Year and quarter		Total economy	Tourism sector				
			Total	accommodation	Food - beverage services	passenger transport	Other tourist activities
Half	T1	361,979	81,285	25,414	29,696	11,637	14,538
	T2	422,911	130,726	52,752	43,516	15,684	18,774
	T3	417,359	126,906	51,154	41,946	15,667	18,140
	T4	340,076	61,186	11,400	25,672	10,368	13,746
Percentage	T1	100%	22.5%	7.0%	8.20%	3.2%	4.0%
	T2	100%	30.9%	12.5%	10.29%	3.7%	4.4%
	T3	100%	30.4%	12.3%	10.05%	3.7%	4.3%
	T4	100%	18.0%	3.3%	7.55%	3.0%	4.0%



*Figure 6.1. Contribution of each subsector to the total number of affiliates in the tourism sector throughout the year (source: own based on IBESTAT).*

As can be seen, the tourism sector represents between 18 and 31% of social security affiliation throughout the year. Analyzing each tourism subsector, it is observed that accommodation services and those related to food and drink are the ones that contribute the most to the number of affiliates for the tourism sector. In terms of the accommodation sector it accounts for between 3.4% and 12.5% for the total of the economy and between 7.5% and 10.3% when it comes to the food and beverage services sector. The figure also shows the high influence of accommodation

services, presenting a high variation throughout the year and being the one that has the greatest effect on the number of affiliates to social security.

## 6.2. Temporality of employment

Regarding the temporary nature of employment, that is, how the number of employed individuals varies throughout the year, the variation rate of employed per quarter is analysed. The analysis has been carried out with the available data on employment and quarterly variation in the period from 2016 to 2021 in all the Balearic Islands, since they do not appear specifically for Mallorca.

Both the table and the figure clearly show that in the first and fourth quarter of each year there is a negative variation employment rate in the tourism sector, which means that there are more individuals unemployed. On the other hand, by the second and in the third quarter the variation is positive, which means that the number of employed individuals increases. The variation rate is higher in the second quarter, which coincides with the start of the tourist season. The distortion caused by COVID is also perceived, due to the change in the rate of greatest variation from the second to the third quarter.

Table 6.3. Quarterly variation in employment for the period 2016-2021 (source: own based on IBESTAT).

year and quarter	Quarterly variation		year and quarter	Quarterly variation
2016 Q1	-11.81		2019 Q2	55.12
2016 Q2	33.41		2019 Q3	19.42
2016 Q3	16.03		2019 Q4	-25.16
2016 Q4	-27.64		2020 Q1	-29.72
2017 Q1	-20.15		2020 Q2	11.59
2017 Q2	46.75		2020 Q3	33.27
2017 Q3	19.78		2020 Q4	-27.26
2017 Q4	-29.37		2021 Q1	0.38
2018 Q1	-18.09		2021 Q2	29.53
2018 Q2	57.45		2021 Q3	27.13
2018 Q3	18.09		Average 1T	-17.57
2018 Q4	-31.53		2Q average	38.98
2019 Q1	-26.02		3T mean	22.29
			4T average	-28.19



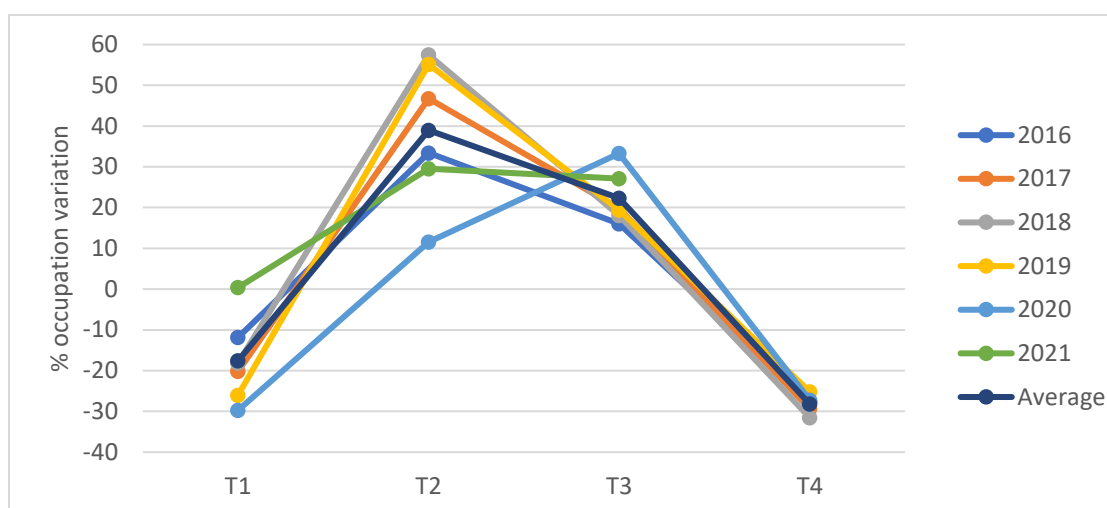


Figure 6.2. Annual occupancy variation for the period 2016 to 2021 (source: IBESTAT).

Temporary employment can also be analyzed using the temporary employment rate of social security affiliations. In this case, specific data is available for Mallorca for the period 2016-2021. Thus, in the following table and graph, it can be seen that it increases significantly in the second quarter of the year, when the tourist season starts, presenting the lowest rate in the first and fourth quarters. It can also be seen how, as of 2018, the temporary rate has a tendency to decrease year after year.

Table 6.4. Quarterly temporary employment rate in Mallorca (by number of social security affiliations) for the period 2016-2021 (source: own based on IBESTAT).

Year and quarter	Temporary rate	Year and quarter	Temporary rate
2016 Q1	27.51	2019 Q2	35.80
2016 Q2	41.24	2019 Q3	31.73
2016 Q3	36.31	2019 Q4	23.54
2016 Q4	28.82	2020 Q1	16.40
2017 Q1	27.94	2020 Q2	12.25
2017 Q2	41.53	2020 Q3	11.58
2017 Q3	38.12	2020 Q4	15.74
2017 Q4	27.51	2021 Q1	13.76
2018 Q1	25.95	2021 Q2	18.37
2018 Q2	37.27	2021 Q3	22.12
2018 Q3	34.49	Average 1T	22.63
2018 Q4	25.00	2Q average	31.08
2019 Q1	24.21	3T mean	29.06
		4T average	24.12

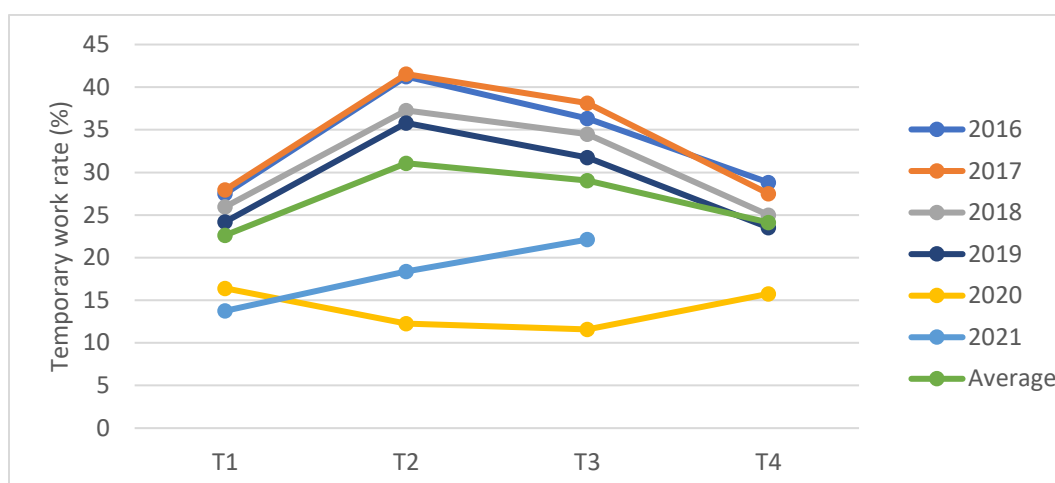


Figure 6.3. Annual temporary employment rate for the period 2016-2021 (source: own based on IBESTAT).

### 6.3. Nature of employment contracts

Another important aspect related to employment is the nature of the contracts. Observing the following table and figure, it can be seen that both the percentage of full-time and part-time contracts follow a similar pattern, with the percentage of both decreasing in the second and third quarters before rising significantly in the fourth. This is due to a contract figure not included in the data, the discontinuous fixed contract. It is a type of permanent contract, but it does not imply working all year round, but only during the high season. Employees with this type of contract represent a high percentage of those employed in the second and third quarters and decrease notably in the fourth.

Table 6.5. Compilation of the partiality rate for the period 2016-2021 and a half (source: own from IBESTAT).

year and quarter	% full time	% part time	year and quarter	% full time	% part time
2016 Q1	47.49	18.74	2019 Q2	48.42	12.87
2016 Q2	48.36	16.33	2019 Q3	46.57	12.36
2016 Q3	46.50	14.93	2019 Q4	65.99	21.71
2016 Q4	64.65	24.71	2020 Q1	51.10	15.14
2017 Q1	49.94	17.58	2020 Q2	36.45	11.16
2017 Q2	50.14	14.90	2020 Q3	36.26	11.08
2017 Q3	48.45	14.15	2020 Q4	70.46	20.96
2017 Q4	64.82	23.53	2021 Q1	63.46	19.04
2018 Q1	49.21	15.78	2021 Q2	38.45	11.66
2018 Q2	48.62	13.15	2021 Q3	40.40	12.16
2018 Q3	47.59	12.55	Average 1T	51.95	17.09
2018 Q4	65.89	22.42	2Q average	45.08	13.35
2019 Q1	50.51	16.26	3T mean	44.30	12.87
			4T average	66.36	22.67

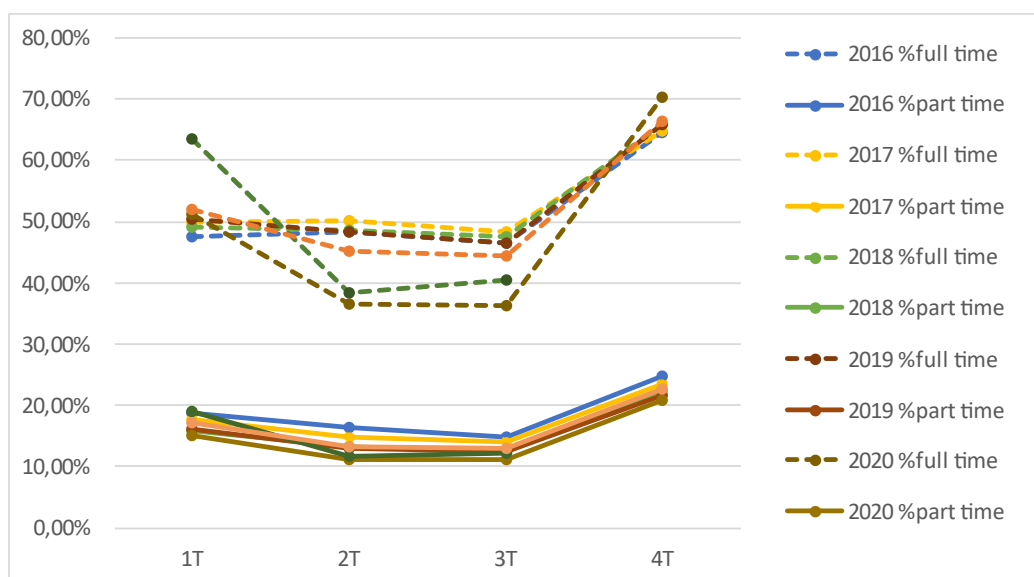


Figure 6.4. Annual evolution % of full-time and part-time contracts of those employed in the tourism sector in Mallorca for the period 2016 to 2021 and the average for this period (source: IBESTAT).

The analysis of employment in the tourism sector also requires knowing the number and evolution of permanent contracts. In the table and the figure below, it can be seen that the percentage of indefinite contracts of those affiliated to social security for the 2016-2021 period decreases in the second and third quarters because part of the increase in new contracts during this period corresponds to temporary contracts. This does not happen for 2020 since, due to COVID, hiring dropped significantly.

Table 6.6. Percentage of indefinite contracts in the tourism sector of those affiliated with social security for the period 2016 to 2021 and the average (source: own based on IBESTAT).

year and quarter	% permanent contracts		year and quarter	% permanent contracts
2016 Q1	72.04		2019 Q2	64.02
2016 Q2	58.47		2019 Q3	68.11
2016 Q3	63.40		2019 Q4	76.17
2016 Q4	70.63		2020 Q1	83.47
2017 Q1	71.71		2020 Q2	87.64
2017 Q2	58.25		2020 Q3	88.33
2017 Q3	61.64		2020 Q4	84.06
2017 Q4	71.98		2021 Q1	86.04
2018 Q1	73.72		2021 Q2	81.55
2018 Q2	62.51		2021 Q3	77.79
2018 Q3	65.31		Average 1T	77.09
2018 Q4	74.63		2Q average	68.74
2019 Q1	75.54		3T mean	70.76
			4T average	75.49

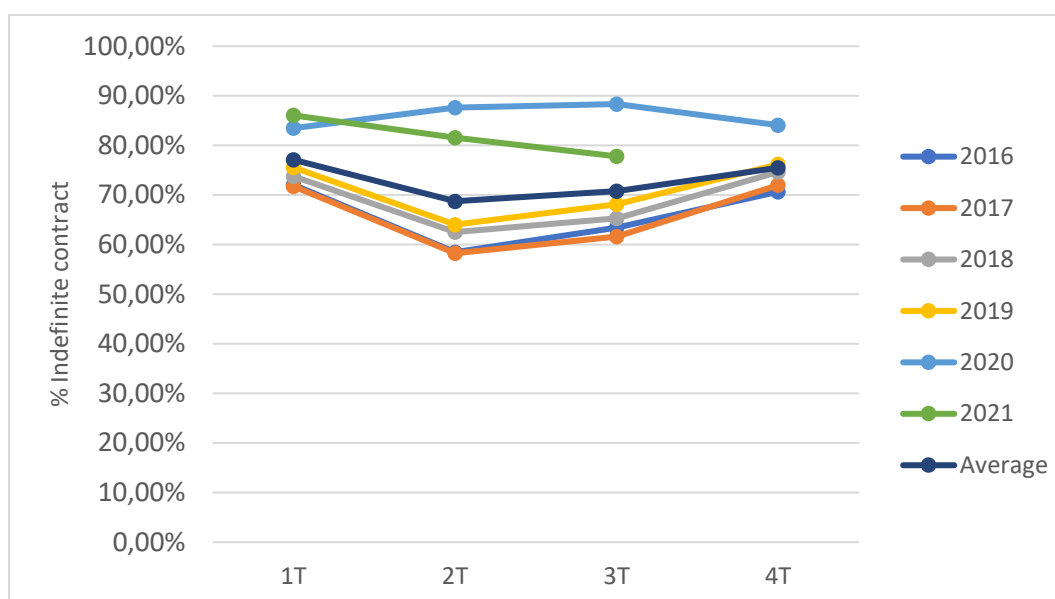


Figure 6.5. Evolution of the percentage of permanent contracts throughout the year for the period 2016-2021 (source: own based on IBESTAT).

Regarding the annual earnings of workers in the tourism sector, there is no specific information available for the tourism sector. Consequently, reference is made to the information available for the tertiary sector for the period 2014-2019 wherein the tourism sector is included. According to the table, compared to the other sectors of the economy, the tertiary sector has, on average, higher wages than those of construction, and lower than industry, and would be close to the average earnings. It can also be seen that throughout the period there has been a gradual annual increase of between 0.37% and 3.7% in the services sector.

Table 6.7. Annual earnings by workers by the most important economic sectors for the period 2014-2019 (source: own based on IBESTAT).

	Industry	Construction	Services
2014	24,644.63	19,838.65	21,203.15
2015	23,081.06	19,243.68	21,465.08
2016	23,353.73	19,221.36	21,544.21
2017	23,479.03	20,555.24	22,083.15
2018	24,374.91	20,715.50	22,909.95
2019	23,964.08	21,202.57	23,504.81

#### 6.4. Origin of the employed

In relation to the origin of the employed individuals, when it comes to workers born in the autonomous community of the Balearic Islands, the average is around 40% with a maximum of 50% and 37%. For workers born in the rest of the autonomous communities, the average is around 20%, varying between 27% and 17%. Finally, for those born in the rest of the world the average is around 35% for those born in other countries, with a variation between 26% and 41%. As can be seen in the following table and figure, there are no major variations throughout the year

Table 6.8. Average percentage of Spanish workers or workers with dual nationality and Spanish for the period 2016-2021 (source: own based on IBESTAT).

year and quarter	% Balearic Islands	% Rest of Spain	% Other countries
Average quarter 1	42.45	21.09	36.46
Quarter 2 average	40.39	22.52	37.09
Average quarter 3	40.75	21.36	37.88
Average trimester 4	41.40	20.76	37.83

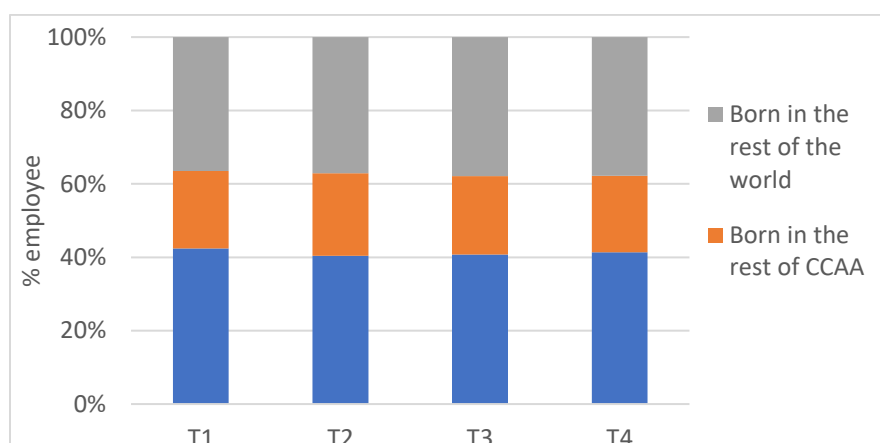


Figure 6.6. Percentage of workers in the tourism sector according to place of birth for the period 2016-2021 (source: own based on IBESTAT).

## 6.5. Gender equality in tourism

Regarding gender equality in those employed in the tourism sector, analyzing the percentage of employment by sex according to the IBESTAT in the period 2016-2021, it is observed that, in general, the percentage of employed men is higher than that of women except for specific moments (fourth quarter of 2016 and second quarter of 2018, with a percentage of employment between 48.6% and 49.85% in the case of men).

Table 6.9. Percentage distribution of employees between men and women in the period 2016-2021 (source: own based on IBESTAT).

year and quarter	% men	% women	year and quarter	% men	% women
2016 Q1	52.33	47.67	2019 Q2	51.50	48.50
2016 Q2	54.29	45.71	2019 Q3	50.13	49.87
2016 Q3	52.24	47.70	2019 Q4	52.14	47.86
2016 Q4	48.60	51.32	2020 Q1	58.58	41.42
2017 Q1	56.16	43.84	2020 Q2	57.27	42.73
2017 Q2	50.19	49.81	2020 Q3	51.33	48.67
2017 Q3	50.32	49.68	2020 Q4	59.57	40.43
2017 Q4	51.79	48.21	2021 Q1	54.02	45.89
2018 Q1	53.17	46.83	2021 Q2	57.65	42.35
2018 Q2	49.85	50.15	2021 Q3	56.47	43.53

2018 Q3	52.00	48.05		Average 1T	55.47	44.52
2018 Q4	53.91	46.09		2Q average	53.46	46.54
2019 Q1	58.56	41.44		3T mean	52.08	47.92
				4T average	53.20	46.78

In the following figure it can also be seen that regardless of the quarter, the percentage of men working in the tourism sector is always somewhat higher than that of women, but always around 50%.

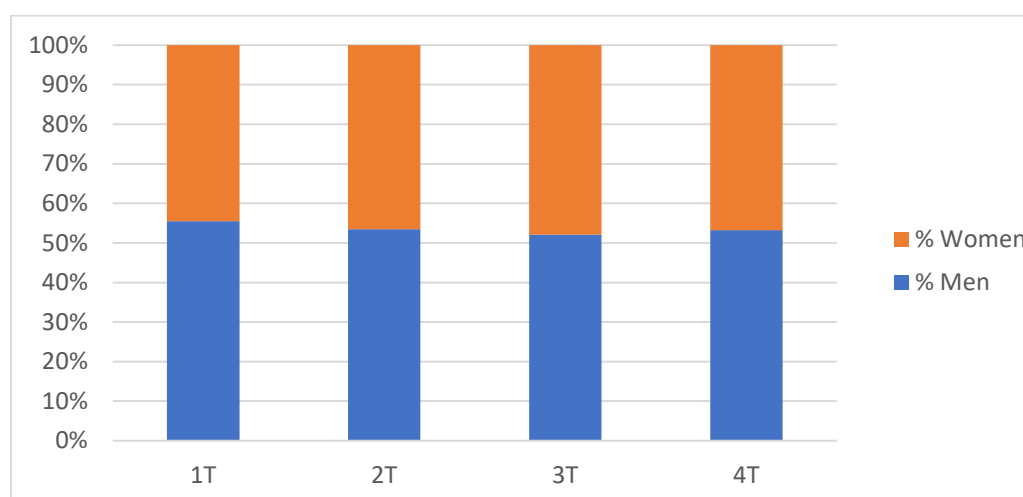


Figure 6.7. Percentage distribution between men and women of the total employed in the tourism sector in the period 2016-2021 (source: own based on IBESTAT).

In addition, analytical focus is also given to the wage gap. The analysis has been carried out using data available for the period 2014-2019 for the earnings of workers in the services sector for the whole of the Balearic Islands, since specific data for Mallorca has not been available. As can be seen in the table and figure, although women have increased earnings throughout this period, they are always lower than men with a difference that varies between 21.1% and 13.8 % lower earnings. However, in general terms, the difference has been narrowing.

Table 6.10. Annual earnings for men and women in the services sector and percentage difference in the period 2014-2019 (source: own based on IBESTAT).

	Men	Women	Difference (%)
2014	24054.02	18978.47	21.10
2015	23986.84	19565.05	18.43
2016	23655.98	19852.53	16.08
2017	23862.91	20564.98	13.82
2018	24896.08	21216.18	14.78
2019	25557.16	21746.14	14.91

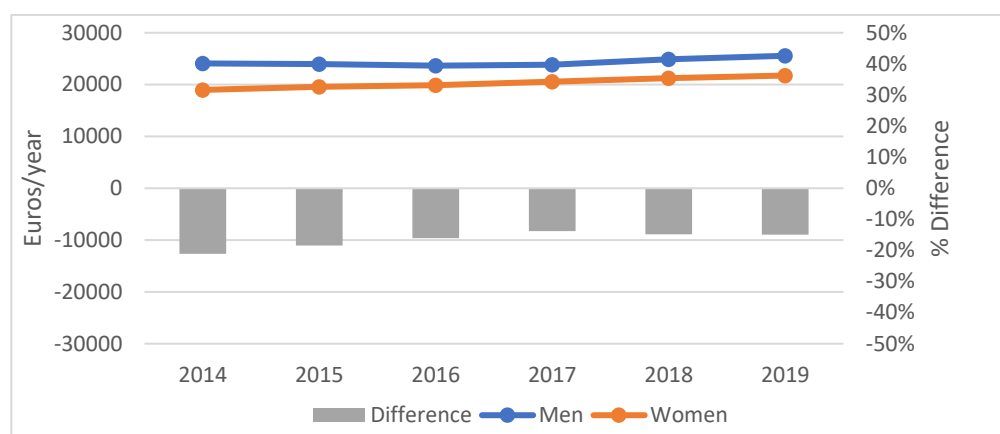


Figure 6.8. Difference between annual earnings of men, women and percentage difference in the period 2014-2019 (source: own based on IBESTAT).

## 6.6. Education, training, capacity building in tourism

Regarding the degree of training of those employed in the tourism sector, data relating to all the Balearic Islands had to be used for the period 2015-2020 since there is no specific information for the island of Mallorca. As shown in the following table and graph, the educational level of the majority of the employed is 1st stage secondary education, which represents 36% of the employed, followed by those with 2nd stage secondary education (30% of the employed). Finally, with 6% of the employed, there are those with primary education or less.

Table 6.11. Compilation of data on employed persons in the tourism sector for the period from 2015 to 2020 and the average according to level of education (source: own based on IBESTAT).

	Total	Primary education or less	Secondary education-1 <sup>st</sup> stage	Secondary education- 2 <sup>nd</sup> stage	Higher education
2015	115,400	3%	35%	32%	30%
2016	146,400	5%	37%	28%	30%
2017	153,200	6%	36%	31%	27%
2018	144,300	6%	37%	29%	28%
2019	147,600	7%	35%	32%	26%
2020	139,100	9%	36%	30%	25%
Half	141,000	6%	41%	30%	28%

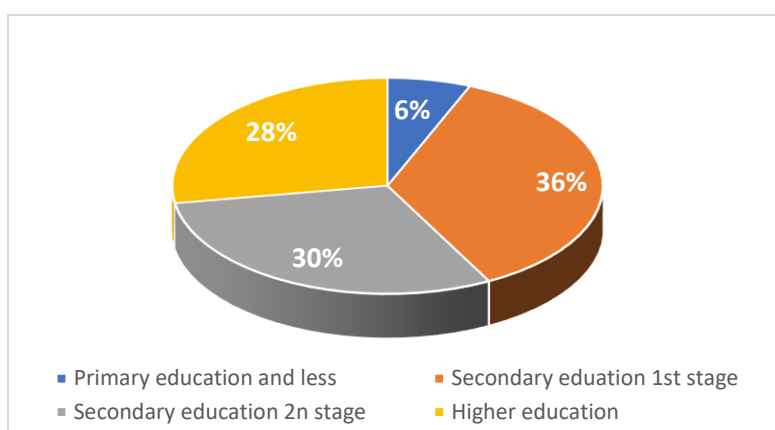


Figure 6.9. Level of education of the employed by each sex (source: own based on IBESTAT).

To finish, it is also interesting to analyze the employed according to age group, also based on data relating to all the Balearic Islands, for the period 2015-2020. As can be seen in the table and in the figure, the majority of those employed in the tourism sector correspond to the middle age group, from 35 to 54 years old, which concentrates 54% of those employed in the tourism sector. In second place comes the group from 16 to 34, which accounts for 32% of the total employed population, and only a 14% are over 55 years old.

Table 6.12. Compilation of data on those employed in tourism by the different age groups for the period from 2015 to 2020 and the average for the period (source: own based on IBESTAT).

	Total	From 16 to 34 years old	From 35 to 54 years	55 and over
2015	115,400	33%	53%	15%
2016	146,400	32%	52%	16%
2017	153,200	34%	52%	14%
2018	144,300	34%	53%	13%
2019	147,600	31%	56%	13%
2020	139,100	29%	57%	14%
Average	141,000	32%	54%	14%

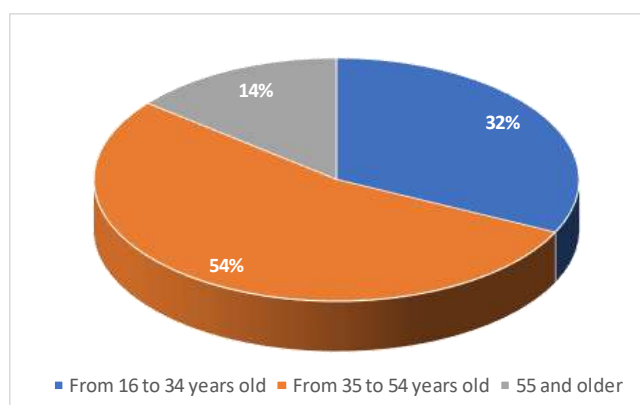


Figure 6.10. Age ranges of those employed in the tourism sector in the Balearic Islands (source: own based on IBESTAT).



## 7. ENERGY MANAGEMENT

### 7.1. Introduction

Energy efficiency refers to the capacity to obtain the best results in any activity using the least possible amount of energy resources. Thus, energy management includes the set of actions to improve energy efficiency, with the aim of achieving the same services or products with less energy consumption.

In terms of general data, according to the 2017 Survey of water and energy consumption in tourist establishments in the Balearic Islands, the average consumption of electricity from the grid was 13.03 kWh per stay in the establishments surveyed in the Islands. In parallel, the average consumption per resident/day in 2017 was 13.6 kWh (source: DG for energy and climate change).

### 7.2. Energy and environmental management systems implemented in companies and organizations

There are Energy Management Systems (SGE) that are part of the management system of a company or organization dedicated to developing and implementing its energy policy, and managing those elements of its activities, products or services that interact with its use of energy.

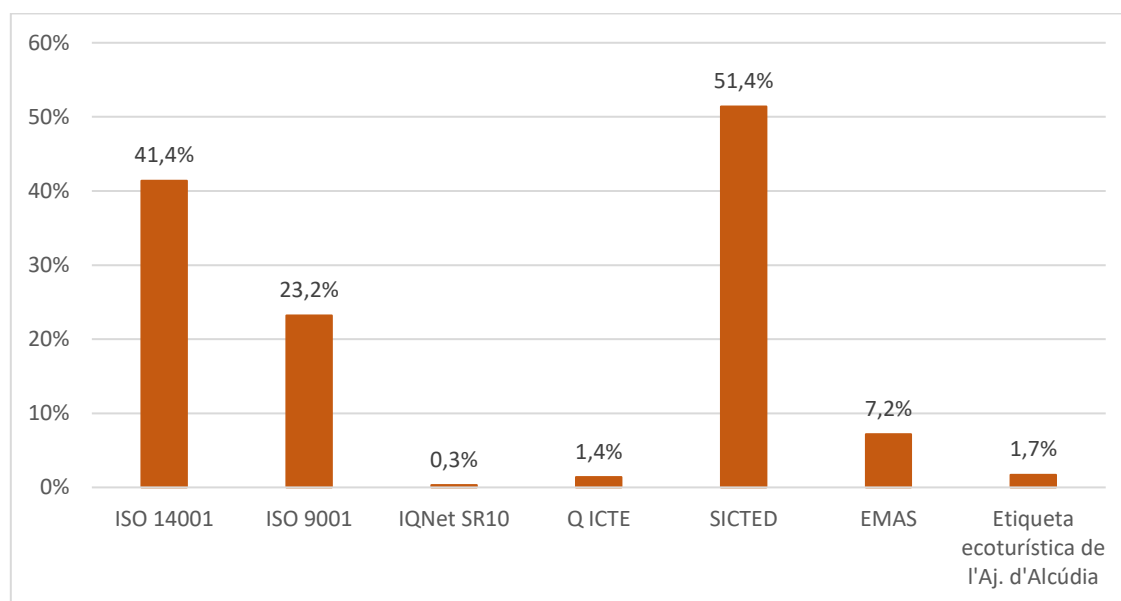


Figure 7.1: distribution of the Energy Management Systems (SGE) implemented in the companies of the Balearic Islands (source: DG for energy and climate change).

According to the 2017 Survey of water and energy consumption in tourist establishments in the Balearic Islands<sup>10</sup>, 27.6% of the establishments surveyed are certified by an official SGE<sup>11</sup> or an environmental management system (SGA), voluntary systems that allow organizations to evaluate and improve their energy or environmental performance and disseminate timely information to

<sup>10</sup> It must be taken into account that the survey was carried out at the level of the Balearic Islands and through a representative sample of 394 establishments, 226 of them in Mallorca.

<sup>11</sup> The UNE-EN ISO 50001:2011 standard establishes the requirements that an SGE must have.

the public and others. Specifically, certified establishments are distributed as follows: half are SICTED (51.4%); followed by ISO 14001 (41.4%) and ISO 9001 (23.2%). On a smaller scale, there are 7.2% certified with the demanding EMAS; 1.7% with the ecotourism label of the Alcudia City Council; 1.4% Q ICTO; and 0.3% IQNet SR10. On the other hand, according to [The EU Ecolabel Tourist Accommodation Catalog](#) two ECOLABEL establishments have been renovated.

It must be said that there is the [Network of Sustainable Hotels of the Balearic Islands](#), a group of companies in the hotel sector committed to protecting the environment. The Network of Sustainable Hotels has 160 affiliated establishments (hotels, apart-hotels or apartments), 120 in Mallorca, 34 in Menorca and 6 in Ibiza. It is estimated that 19% of establishments in the Balearic Islands are members of the network, a similar figure for the island of Mallorca (18%). To join the network, it is necessary to have an environmental management system implemented in daily activities, be it ISO 14001:2004 standards, the European Regulation EMAS II, or the European Ecolabel. According to sources from the same organization, 70 establishments in the network (57 in Mallorca) carry out self-monitoring of environmental behavior by regularly filling in a table of indicators online on the entity's website. This is the tool that allows them to compare themselves and have a vision of the environmental position in relative terms.

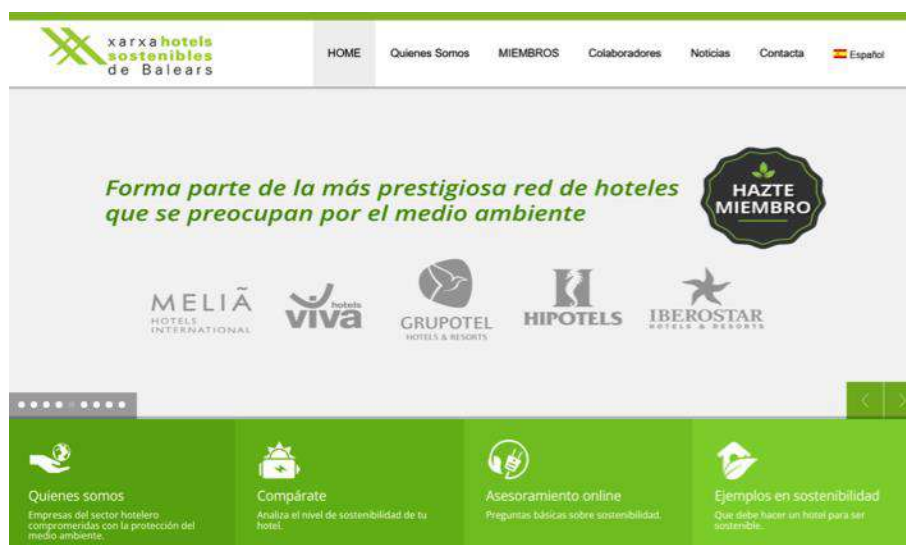


Figure 7.2. Homepage of the website of the Network of Sustainable Hotels of the Balearic Islands.

It is worth mentioning the website <https://www.bookdifferent.com/en/>, a search engine for tourist establishments based on their environmental and sustainable certificates and carbon footprint.

Finally, it should be said that in 2019 the tool with which large and medium-sized companies can calculate and record their carbon footprint, and present and execute reduction plans with linked minimum objectives, was created. It must be said that this Balearic Registry is not yet available. However, according to the state register, in the Balearic Islands, 5 hotel activities and 1 other services (spa) are registered.

### 7.3. Use of renewable energy sources in tourism companies

According to the 2017 Survey of water and energy consumption in tourist establishments in the Balearic Islands<sup>12</sup>, 12.6% of establishments have renewable energy or cogeneration facilities. Among those, 71.2% hold a solar-thermal installation, 11.9% hold a photovoltaic installation, and 5.7% hold a cogeneration installation.

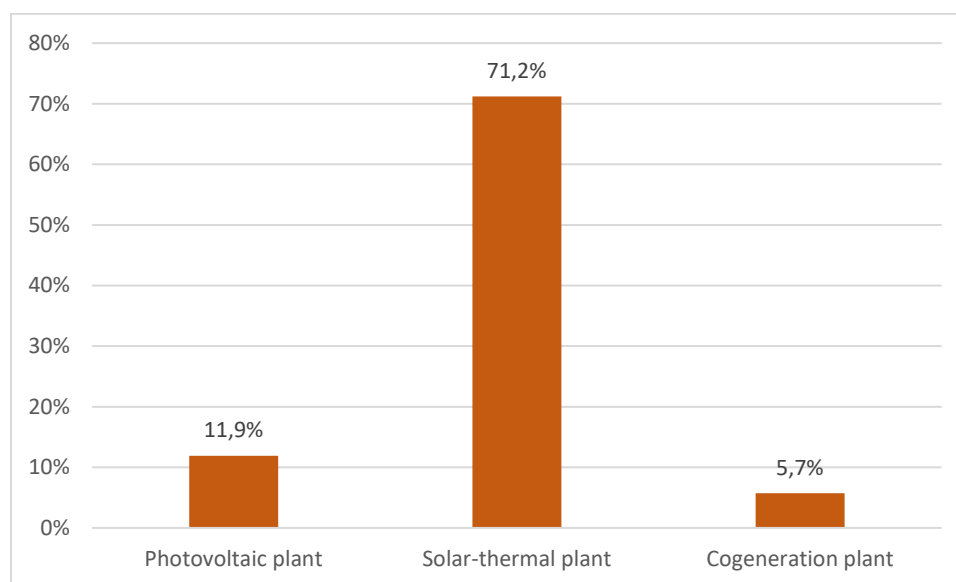


Figure 7.3: distribution according to installed system of tourist establishments in the Balearic Islands that have renewable energy or cogeneration facilities, 2017 (source: own based on the Survey of water and energy consumption in tourist establishments in the Balearic Islands).

Regarding photovoltaic solar energy, with the approval of *Royal Decree 244/2019, of April 5, which regulates the administrative, technical and economic conditions of self-consumption of electrical energy*, self-consumption has become an option for establishments located in certain areas. In any case, it allows the monthly compensation of surpluses or the possibility of shared self-consumption with other properties, exporting part of the energy produced by hotels to other consumers, or important nearby buildings.

<sup>12</sup> It must be taken into account that the survey was carried out at the level of the Balearic Islands and through a representative sample of 394 establishments, 226 of them in Mallorca.

## 8. CLIMATE CHANGE AND DESTINATION CAPACITY

### 8.1. Introduction

Mediterranean tourist destinations, according to the UNWTO 2007, are considered points of maximum vulnerability to the repercussions of climate change. Indeed, warmer summers, water scarcity, loss of terrestrial biological diversity, loss of marine biological diversity and increased number of disease outbreaks are contemplated.

The tourist system in the Balearic Islands, taking into account its shaping features and the marked influence that climatic aspects have exerted on its development, can be directly or indirectly altered by the phenomenon of climate change. For this reason, and given the weight of tourism in the Balearic economy, the issue of impacts and possible adaptive measures must become a priority object of attention. Likewise, it should not be forgotten that tourism acts as a vector to induce climate change: current tourism development responds to the model of energy consumption inherited from the Industrial Revolution, intensive in emissions of large amounts of carbon. This fact has increased since the end of the 1990s with air liberalization and the expansion of low-cost airlines, to the point that it is estimated that air transport is responsible – on a planetary scale – for 4-5% of greenhouse gas emissions. In this sense, the sector must incorporate adequate mitigation measures in its development policies.

It should be noted that the Balearic Islands did pass the Law 10/2019, of February 22, on climate change and energy transition, which establishes measures to combat climate change and sets the path to make the clean energy transition effective.

### 8.2. Frequency of extreme weather events and future projections

Climate change involves changes in the frequency and intensity of extreme events or episodes such as heat waves, droughts, torrential rains and floods, strong winds or sea pounding. Therefore, the reduction of risks associated with weather and climate is associated with adaptation to climate change.

The increase in the number and intensity of heat waves has effects on health. The risk of increased heat waves is associated with the estimated number of days in which the maximum temperatures considered thresholds for health are exceeded, given that an increase in mortality and health problems for people is verified.

*Table 8.1. Risk due to heat waves in Mallorca (source: National Plan for Preventive Actions of the Effects of Excessive Temperatures on Health).*

	Value
Days on which T max thresholds are exceeded.	9 days (Palma)

Projections of atmospheric GHG emissions forecast a widespread reduction in precipitation and runoff as the 21st century progresses. The set of projections in the most unfavorable emissions scenario estimates decreases in average precipitation in Spain and Mallorca during the periods studied (2011-2040, 2040-2070 and 2070-2100).

*Table 8.2. Risk due to droughts in Mallorca according to unfavorable emissions scenarios (source: Evaluation of the impact of climate change on water resources and droughts in Spain, 2017).*

Indicator	Period	Average reduction of rainfall in Spain	Average reduction in rainfall in Mallorca
<b>Precipitation</b>	2011-2040	-5%	-6%
	2040-2070	-9%	-8%
	2070-2100	-17%	-16%
<b>runoff</b>	2011-2040	-8%	-5%
	2040-2070	-16%	-18%
	2070-2100	-28%	-28%

In the case of extreme episodes, the maximum daily rainfall frequency laws estimated from the emission scenarios selected by the AEMET within the set of greenhouse gas emission scenarios established in 2000 by the IPCC have been analyzed. The study presents the frequency distributions obtained from regionally mediated maximum daily rainfall quantile series for each scenario, zone and period, in which it is verified that, contrary to what might be expected, a clear sign of the evident increase in the magnitude or frequency of maximum rainfall (extreme episodes). On the other hand, with regard to the variation in the volume of precipitation, most models predict a reduction (positive values are only obtained on two occasions). The reduction values fluctuate between 1% and 26%.

Currently, these works are being updated, promoted by the Spanish Office for Climate Change, which uses the climate change scenarios generated by global models for the Fifth Assessment Report (AR5) of the IPCC. These scenarios, conveniently regionalized using statistical techniques, make up the input for the CEDEX hydrological models that assess the impacts of climate change on water resources in the natural regime.

*Table 8.3. Risk due to torrential rains and floods (source: Flood Risk Management Plan 2016-2020. Hydrographic Demarcation of the Balearic Islands).*

Indicator	Value
Torrential rains	The available studies do not allow to identify a monotonous growth of the maximum daily precipitations

However, in general, throughout the planet and especially in Europe, it is observed that the damage caused by floods increases over time, as can be seen in the following graph from the European Environment Agency:

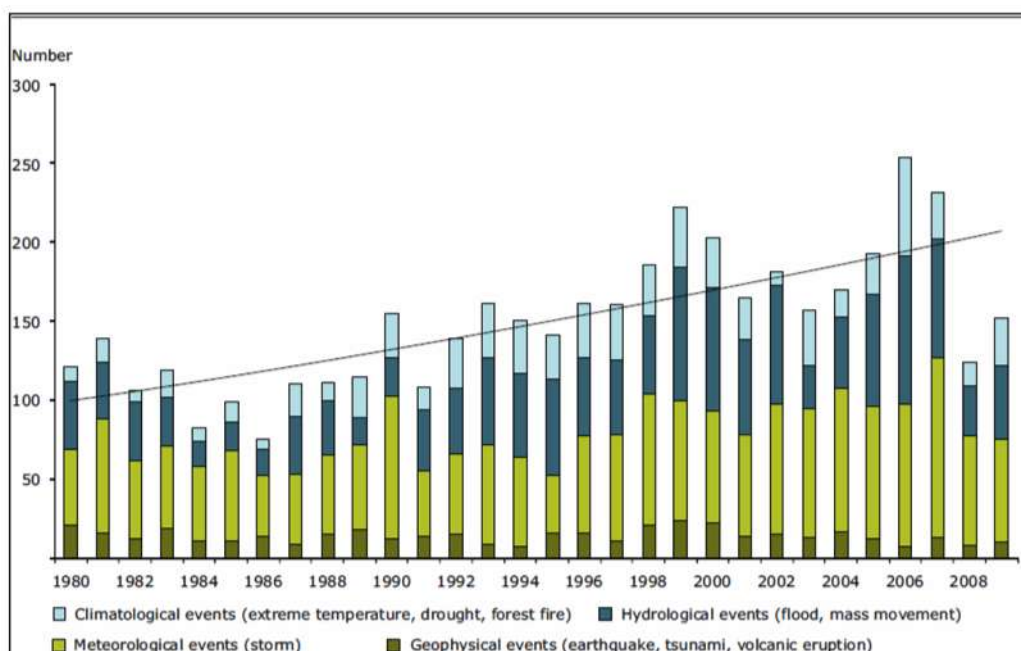


Figure 8.1: Natural disasters in EU states in the period 1980-2009 (Source: EEA Technical report No 13/2020).

### 8.3. Economic damage from climate change

One of the most recurrent consequences of climate change is flooding, this being the natural catastrophe that generates the most damage in Spain.

According to the Insurance Compensation Consortium and the Geological and Mining Institute of Spain, the total damage caused by floods is estimated at an average of 800 million euros per year. As an example, according to the statistics of the Insurance Compensation Consortium, only in insured goods, in the period 1971-2012, 42.9% of the files processed were due to flood damage, which accounted for 60.3% of total compensation, which on average amounts to more than 130 million euros per year.

### 8.4. Tourism companies involved in mitigating climate change

The number of companies aware of the need to adopt measures against climate change is growing everywhere and in particular in the Balearic Islands. In this sense, it is worth mentioning the Network of Sustainable Hotels of the Balearic Islands, a non-profit organization that brings together companies in the tourism sector committed to protecting the environment. The Network of Sustainable Hotels has 160 affiliated establishments (hotels, aparthotels or apartments), 120 in Mallorca, 34 in Menorca and 6 in Ibiza. To join the network, it is necessary to have an environmental management system implemented in daily activities, be it ISO 14001:2004 standards, the European Regulation EMAS II or the European Ecolabel. According to sources from the same organization, 70 establishments in the network (57 in Mallorca) carry out self-monitoring of environmental behavior by periodically completing a table of indicators available on the entity's website (<https://indicadoressostenibles.com/index.php>). This is the tool that allows them to compare themselves and have a vision of the environmental position in relative terms.

### 8.5. Contingency or emergency planning in tourist areas

The Island Territorial Plan of Mallorca (PTIM) constitutes the general instrument for the organization of the territory of the island of Mallorca. It was approved by the Plenary Session of the Island Council of Mallorca in 2004 (BOIB no. 188 Ext. of December 31, 2004) and entered into force on January 1, 2005. Subsequently, it has been subject to modifications.

Among other aspects, the PTIM defines the Risk Prevention Areas (floods, fires, erosion and landslides), in relation to urban areas, urbanizable and suitable for urbanization and non-urbanizable land. In summary, it can be said that 100% of the surface of Mallorca is covered by territorial planning in the face of contingencies or emergencies.

### 8.6. Evolution and main responsible for CO<sub>2</sub> emissions

Pollutant emission inventories in the atmosphere are a fundamental tool when compiling the necessary information to establish pollution prevention and correction policies. In 2019, total CO<sub>2</sub> emissions were 8,619.4 ktn of CO<sub>2</sub> equivalent, which corresponds to the emission levels of 1999. The following graph shows the evolution of GHG emissions in the Balearic Islands in the period 1990-2019.

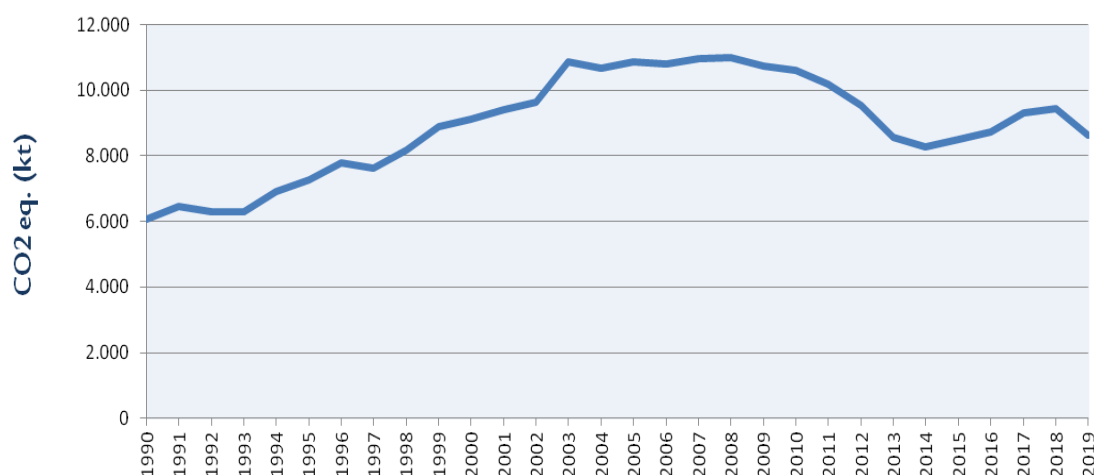


Figure 8.2. Evolution of greenhouse gas emissions in the Balearic Islands in the period 1990-2019 (CO<sub>2</sub> eq.)  
(Source: Inventories of pollutant emissions into the atmosphere of the Balearic Islands).

By sectors, "processed energy" stands out, which includes transport and industries in the energy sector and represents more than 90% of emissions. It should be noted that in 2019 the emissions related to transport were 3,655 ktn of CO<sub>2</sub> equivalent and emissions related to industries in the energy sector 3,445 ktn of CO<sub>2</sub> equivalent.

*Table 8.4. Evolution of GHG emissions by sector in the Balearic Islands (CO2 eq.) in the period 2015-2019  
(source: Inventories of pollutant emissions into the atmosphere of the Balearic Islands).*

Year	1. Energy processing	2. Industrial processes and use of products	3. Agriculture	4. Waste treatment and disposal	Total
<b>2015</b>	7.558,40	402,8	203,2	349,4	<b>8.513,8</b>
	88,8%	4,7%	2,4%	4,1%	
<b>2016</b>	7.804,80	394,6	201,2	326,1	<b>8.726,6</b>
	89,4%	4,5%	2,3%	3,7%	
<b>2017</b>	8.421,50	352,7	202,8	342,1	<b>9.319,1</b>
	90,4%	3,8%	2,2%	3,7%	
<b>2018</b>	8.594,50	310,2	201,1	324,3	<b>9.430,2</b>
	91,1%	3,3%	2,1%	3,4%	
<b>2019</b>	7.910,20	190,2	200,8	318,2	<b>8.619,4</b>
	91,8%	2,2%	2,3%	3,7%	



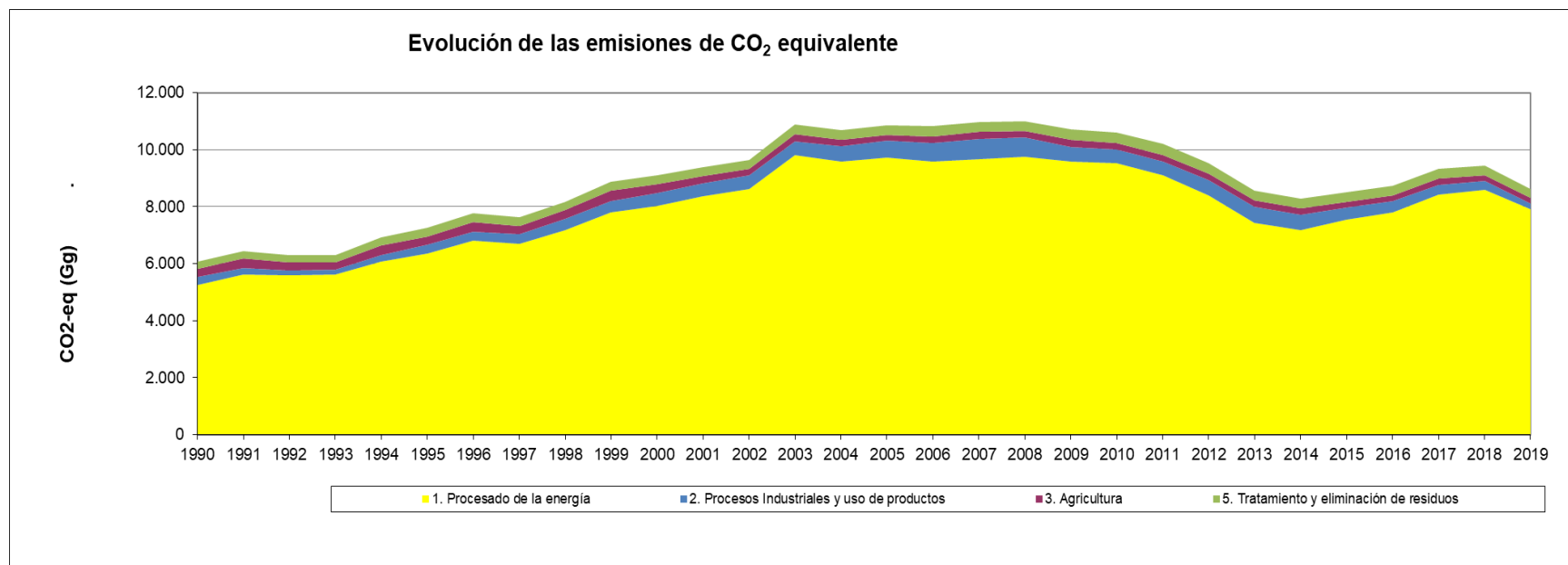


Figure 8.3. Evolution of GHG emissions by sectors in the Balearic Islands (CO<sub>2</sub> eq.) (Source: Inventories of emissions of pollutants in the atmosphere of the Balearic Islands).

For Mallorca, in 2018, SNAP (Selected Nomenclature for Air Pollution) emissions totaled 8,933 kilotons of CO<sub>2</sub>, as shown in the following table and graph:

Table 8.5. CO<sub>2</sub> emissions by sector according to SNAP in Mallorca (source: Inventory of pollutant emissions in the atmosphere of the Balearic Islands, 2018).

Sector	CO <sub>2</sub> (kt)
1. Combustion energy production	2,722.15
2. Non-industrial combustion	392.68
3. Industrial combustion	105.25
4. Industrial processes	120.91
5. Fossil fuel management	0.00
6. Use of solvents and paints	8.72
7. Road transport	1,976.13
8. Other vehicles	3,097.98
9. Waste management	508.17
10. Agriculture	1.28
11. Other sources and sinks	0.00
<b>Total</b>	<b>8,933.27</b>

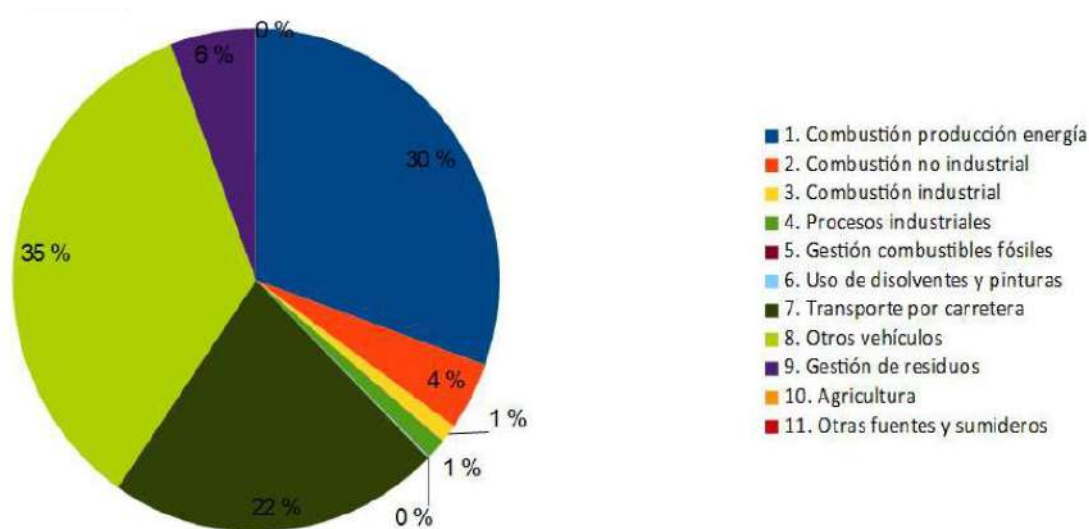


Figure 8.4: CO<sub>2</sub> emissions by sector, according to SNAP, in Mallorca (source: Inventory of pollutant emissions in the atmosphere of the Balearic Islands, 2018).

### 8.7. Fossil fuel consumption attributable to the tourism and transport sector

In general, the final energy consumption of the territories is calculated by differentiating the major sectors of activity: industry, transport (land and aviation), primary, tertiary sector, residential and public services. In the absence of data, it is estimated that, in the case of Mallorca, not all of it, but a majority of the tertiary sector corresponds to the tourism sector. From the energy balance of Mallorca, it can be established that the consumption of fossil fuels by the services sector is 75,801 Toe, of which a high percentage, certainly above 75%, corresponds to the tourism sector.

Table 8.6. Final consumption of fossil fuels in the services sector in TOE (source: own based on the Energy Balance of Mallorca, 2018).

	Tonne of oil equivalent (TOE)	Percentage (%)
Natural gas and biogas	38,969	51.41
LPG	18,916	24.96
Light petroleum products	17,887	23.60
Heavy petroleum products	29	0.04
Total final consumption of fossil fuels	75,801	100

With regard to the transport sector, from the final fuel consumption of Mallorca, the total consumption of fossil fuel can be obtained, differentiating land and aviation transport. With this data we also obtain the per capita consumption of fuel. It must be said that there are no data related to consumption by maritime transport, which would further increase the footprint.

Table 8.7. Fossil fuel consumption for total transport and per capita in TOE (source: own based on the Energy Balance of Mallorca, 2018).

	Land	Aviation	Total
Total fossil fuel consumption for transportation (Toe)	526,628	521,373	1,048,000
Total per capita consumption of fossil fuel for transportation (Toe /inhabitant)	0.598	0.592	1,191

TOE: tonne of oil equivalent; total population of Mallorca (2018): 880,113

## 8.8. Damage due to forest fires

The climate crisis causes increasingly extreme phenomena with an increased risk of forest fires. Thus, it is paramount to have an impact in self-protection and risk awareness in urban-forest interface areas.

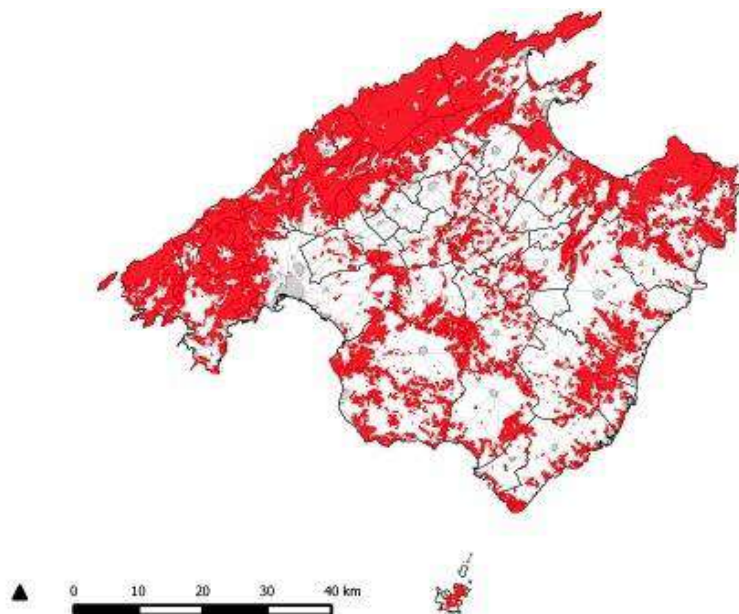


Figure 8.5: Areas at high risk of forest fires in Mallorca (source: IDE Mallorca).

The data on the evolution of the number of fires in Mallorca show that they occur every year, at least in the last two decades. As for the typology, a difference is made between an outbreak

of fire, that is to say that it does not get to be consumed, or a fire itself developed with greater or lesser intensity.

The following graph shows the number of outbreaks and fires in the last decade together with the area burned. The effect of the most important fire in the history of Mallorca (2013) that occurred in Andratx, with the result of 2,335 ha burned, is clearly observed. However, since 2013, the number of fires only exceeded ten in 2016 (16 fires) and since 2014 the area burned has remained below 150 ha, except for 2020 (457 ha), due to the S' Albufera fire.

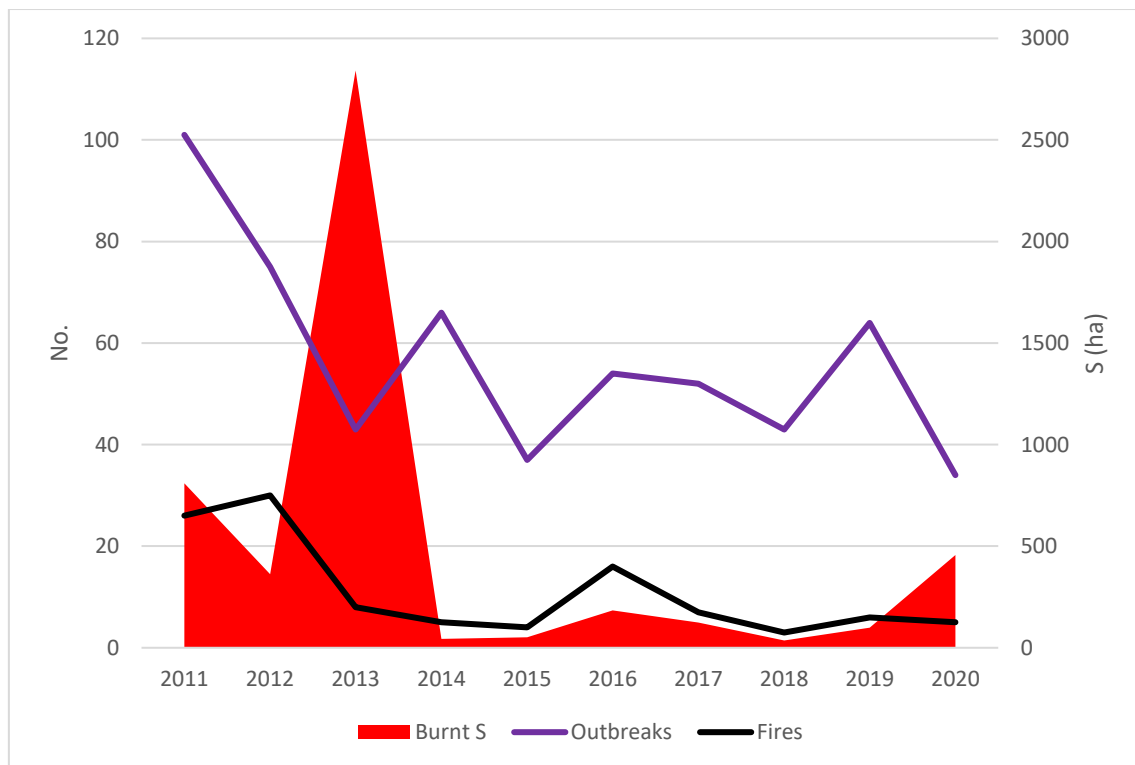


Figure 8.6. Evolution of the area burned by fires, near misses and number of fires in the period 2011-2020 in Mallorca (source: own from IBESTAT).

## 9. UNIVERSAL ACCESSIBILITY AND INCLUSIVITY

### 9.1. Introduction

Taking into account the attraction of visitors that characterizes the tourist vocation of Mallorca, it is essential to ensure access for people with disabilities, on equal terms with others, in the physical environment, transport, information and communications, including systems and information and communication technologies, and in other services and facilities open to the public or for public use, both in urban and rural areas.

### 9.2. Accessibility regulations, policies and programs

Accessibility and inclusivity are regulated, apart from state regulations and legislation, by a set of laws and decrees of the Government, the Council of Mallorca and the Palma City Council, either with specific accessibility texts or texts that are linked to one or another sense:

*Table 9.1. Compilation of regulations in force in Mallorca regarding accessibility and inclusivity (source: own).*

Organism	Scope	Publication	Date	Provision
GOIB	Accessibility. architectural barriers	BOIB 62	05/20/1993	Law 3/1993, of May 4, for the improvement of accessibility and the removal of architectural barriers
Palma City Council	minor work Consider accessibility in portals	BOIB 138	11/16/2002	Municipal Ordinance of February 27, 2002, which approves the regime of minor and simple minor works
GOIB	museums Consider accessibility	BOIB 44	04/03/2003	Law 4/2003, of March 26, on museums in the Balearic Islands
Palma City Council	markets Consider accessibility	BOIB 103	07/19/2003	Amendments to the Regulations on Consumer Services and Municipal Retail Markets
Palma City Council	phone booths Consider accessibility	BOIB 169	11/27/2004	Definitive approval of the municipal Ordinance regulating telephone booth establishments
Council of Mallorca	Town planning Consider accessibility	BOIB 171	02/12/2004	Agreement of the Plenary of the Insular Council of Mallorca in relation to compliance with the prescriptions of the final approval of the urban regulations of the municipality of Palma
GOIB	Beaches Consider accessibility	BOIB 8	01/15/2005	Decree 2/2005, of January 14, regulating the minimum safety and protection measures that the beaches and bathing areas of the autonomous community of the Balearic Islands must comply with
GOIB	Activity licenses Consider accessibility	BOIB 152	10/28/2006	Law 16/2006, of October 17, on the legal regime for integrated activity licenses in the Balearic Islands
Council of Mallorca	Town planning Consider accessibility	BOIB 170	11/30/2006	Agreement of the Plenary Session of the Insular Council of Mallorca in relation to compliance with the prescriptions of the punctual modification related to the urban regulations, consolidated text, of the PGOU of Palma

Organism	Scope	Publication	Date	Provision
Palma City Council	Activities Consider accessibility	BOIB 45	04/03/2008	Municipal Activities Ordinance. Published in the Urban Planning and Housing Area. I ran . of errors. BOIB no. 29, of February 28, edict no. 2986.
GOIB	Neighborhoods Consider accessibility	BOIB 44	03/26/2009	Law 2/2009, of March 19, on rehabilitation and improvement of neighborhoods in the municipalities of the Balearic Islands.
Palma City Council	Town planning Consider accessibility	BOIB 166	11/14/2009	Definitive approval agreement with prescriptions, of the punctual modification of article 47 of the urban regulations of the General Plan of Urban Planning of Palma
GOIB	Accessibility. architectural barriers	BOIB 157 EXT	10/29/2010	Decree 110/2010, of October 15, which approves the Regulation for the improvement of accessibility and the removal of architectural barriers
GOIB	Accessibility. architectural barriers	BOIB 142	09/22/2011	Decree 94/2011, of September 16, which modifies Decree 110/2010, of October 15, which approves the Regulation for the improvement of accessibility and the removal of architectural barriers
GOIB	Disabled rights. assistance dogs		03/01/2014	Law 1/2014, of February 21, on assistance dogs
Palma City Council		BOIB 73	05/16/2015	Municipal ordinance regulating the building evaluation report
GOIB	Promotion of accessibility and removal of architectural barriers	BOIB 96	05/08/2017	<a href="#">Law 8/2017, of August 3, on universal accessibility of the Balearic Islands</a>
Council of Mallorca		BOIB 86	07/12/2018	Comprehensive care service and promotion of autonomy for people with hearing disabilities
Palma City Council		BOIB 109	04/11/2018	Municipal ordinance of occupation of public roads
GOIB	Regulation of universal accessibility		07/20/2020	<a href="#">Project of decree of regulation of the universal accessibility in the spaces of public use of the Balearic Islands<sup>13</sup></a>

<sup>13</sup> Pending the opinion of the Economic and Social Council of the Balearic Islands.

### **9.3. Services and programs for disabled people managed by the Council of Mallorca**

Different administrations operating in Mallorca promote and manage services and programs for disabled people, especially the Council of Mallorca, which, for this purpose, has different tools and organizations:

#### Majorcan Institute of Social Affairs (IMAS)

The IMAS is an autonomous body dependent on the Department of Social Welfare of the Council of Mallorca and the reference institution in Mallorca to manage social services, the protection of minors and assistance resources. It has an "Accessibility Section" that ensures compliance with current regulations on accessibility and works to make effective the universal right of people to live and enjoy the environment without barriers and especially for people with reduced mobility, alterations or disabilities that affect communication. Specifically, it offers:

- Advice and guidance in the application of regulations on accessibility to administrations, organizations, companies and individuals.
- Cooperation with the municipalities of Mallorca to carry out the diagnosis of accessibility and the application of the reference regulations.
- Participation in information and awareness campaigns.
- Management of universal accessibility awards.
- Coordination of the Mallorca Table for universal accessibility.
- Participation in the Advisory Council for the improvement of accessibility and removal of architectural barriers, attached to the Ministry of Agriculture, Environment and Territory.

On its web portal <https://www.imasmallorca.net/ca/accessibilitat>, it offers the Informative Guide "Accessibility works and actions in communities of owners", a Palma City Council document for workers "General guidelines for caring for people users with disabilities", and the information leaflet "How to talk to the person with hearing problems".

#### Mallorca Roundtable for Universal Accessibility

In 2000, the Mallorca Roundtable for Universal Accessibility was created, made up of entities and organizations defending and promoting universal accessibility. Specifically, the table is made up of the following citizen entities: ONCE, PREDIF, ASPAYM, ASPROM, ASPACE, COORDINADORA, APAS, FSIB; and the following institutions: Palma City Council, Calvià City Council, General Directorate of Architecture and Housing (CAIB), Department of Architecture of the IMAS, Department of Territory of the Council of Mallorca and Department of Culture and Heritage of the Council of Mallorca. It should be said that the table was recognized in 2013 with the ONCE Solidarity Awards.

#### Individual aid for people with disabilities

Grants that are convened each year on an individual basis to achieve the physical, mental and sensory recovery of people with disabilities, as well as supply or complete their limitations and functional deficiencies and facilitate the development of daily life, to increase their quality of life and social welfare.

### Occupational center

Through the Majorcan Institute of Social Affairs (IMAS) support is given to disabled people in the La Purísima Occupational Center. The center works to achieve maximum personal development and social inclusion with therapeutic occupational or wellness activities, learning for autonomy and social and labor insertion.

### Sign interpretation service

The Consell de Mallorca offers a sign interpretation service aimed at people with hearing disabilities.

## **9.4. Public transport suitable for mobility problems**

Accessibility is a quality factor of the public transport service that guarantees the universal right to mobility. According to an [IB3 news item from April 2018](#), public transport in Mallorca did not correctly incorporate the necessary elements for good accessibility. Specifically, users with reduced mobility reported deficiencies in the TIB (Transportes de las Islas Baleares) buses, the EMT, the train and even on the boats. On the other hand, the Government stated that it was aware of the shortcomings and that it would take action.

In fact, already in 2008, the Council of Mallorca had published the guide "Tourist information on accessibility in Mallorca- Towards a Mallorca for all" where the services related to the accessibility of each means of transport offered were indicated and the following was indicated:

*Table 9.2. Resources on accessibility and inclusiveness in public transport in Mallorca, 2008 (source: own from the Council of Mallorca).*

<b>EMT buses</b>	Low floor vehicles. Access via ramp and lateral incline. Interior space reserved for people in wheelchairs or baby strollers. There is a stop bell at a low height. There may be difficulties getting off at some stops, as the bus cannot parallel and approach the curb. Acoustic and visual information at stoppages.
<b>TIB buses</b>	Low-floor vehicles (with a ramp and lateral tilt) or high-floor vehicles (with a lifting platform). You must call the bus company to confirm if the bus is adapted.
<b>Train (CTM)</b>	Level access, there is interior space for people in wheelchairs or pushchairs. Guide dog access is allowed. Access to Palma stations is by lift, escalator or stairs with handrails. There is a route with differentiated tactile paving to help people with visual difficulties. There are accessible toilets with sufficient transfer space from right to left and folding bars on both sides of the toilet. Access to the rest of the stations in Mallorca is via ramp or level.
<b>Sóller train</b>	Access via high steps. The door and the corridors are narrow. Access to Sóller station is via stairs with handrails. There is a sink indicated as accessible that has a transfer space from right to left and a folding support bar, however, access to the sinks is via 3 steps. Access to Palma station is via a step.



<b>Airport</b>	Access is at level or via ramps. The interior tour is done by elevator, with escalators or stairs with handrails. There are also mechanical bands to walk. Each company has a wheelchair or buggy escort service to the plane. Washbasins with transfer space and folding support bars on 2 sides of the WC.
<b>Boat</b>	Station 1. Access on foot from station no. 2 or access by car. Washbasins available with fixed bars on both sides of the WC. Station 2. Access from the car park by means of a ramp and interior route by elevator or escalator. A car park reserved for the disabled. Sinks with transfer space and folding support bars. Station 3. Access by ramp from the car park. Travel with escalators or elevator. A car park reserved for the disabled. Washbasin with transfer space and folding bar. Station 4. Access on foot from station no. 2 or access by car. Restrooms available. There is a toilet with a fixed bar. Station 5. Access via stairs. Restrooms available. Station 6. Level access. There is a toilet with transfer space and folding bars on both sides of the WC.
<b>Cab</b>	Access via rear ramp or lifting platform. The maximum capacity is one person in a wheelchair and 4 people seated plus the driver. The number of places varies according to the amount of luggage.

In turn, according to a [TIB news from November 2020](#), new TIB lines have been introduced, which "complied with the Universal Accessibility Law", in this case, a double ramp.

Lastly, and related to accessibility to public transport, the City Council of Palma definitively approved, in accordance with the plenary session on December 21, 2006, the [Regulations for the urban collective transport service of Palma de Mallorca](#), published in BOIB no. 14 of January 27, 2007. In section 3 of art. 24. General regulations" it is indicated that, as a general rule: "That the requirements on promotion of accessibility and removal of architectural barriers are complied with".

It should also be noted that the MobiPalma application, designed by public transport users, is accessible to blind people.

### 9.5. Attractions with alternative access for people with mobility problems

It is worth mentioning the accessible tourism web portal and application "[Spain is accessible](#)" that includes accommodation, restaurants, cultural elements, beaches and transport with universal accessibility. In the case of the Island of Mallorca, the following offer is registered:

*Table 9.3. Accommodation, restaurants, cultural elements, beaches and transport with universal accessibility in Mallorca (source: own from the Spain website is accessible).*

Type	.	Accessibility
Accommodation	4	People with reduced mobility
Restaurant	3	People with reduced mobility
Culture	2	People with reduced mobility and in the case of Bellver Castle also by people with total or partial loss of vision and/or hearing
Experiences	9	People with reduced mobility, people with total or partial loss of vision and/or hearing and people with intellectual disabilities.
Beaches	12	People with reduced mobility and people with limitations in understanding

Type	.	Accessibility
		and/or expression.
Transport	8	People with reduced mobility

As for the travel agencies specializing in establishments with universal accessibility, of the 7 existing in the State, none is in the Balearic Islands.

It should be noted that the Council of Mallorca collaborates with the Vodafone Spain Foundation and the State Representative Platform for People with Physical Disabilities (PREDIF) to promote accessible tourism on the island through the "Mallorca: TUR4all destination" project. Through a [website](#) similar to the former, which facilitates the search for accommodation, activities and others for people with disabilities.

Handisport Foundation, a private non-profit entity whose objective is to promote the real integration of people with disabilities into society, ought also be mentioned. This foundation organizes sports, educational, training activities... The aforementioned has a brand and a web portal for accessible tourism [Handitur](#), which includes the support of the AETIB, the Spanish Network of Accessible Tourism, the Calvià City Council and Sports Destino Mallorca.

#### 9.6. Accessibility to hospitals and health centers

Mallorca is divided into four health sectors: Llevant, Migjorn, Ponent and Tramuntana. Each sector has several types of public facilities linked to health: Basic Health Areas (ZBS), Hospitals, Intermediate Care Centers, Health Centers (CS)/Continuous Care Points (PAC) and Basic Health Units (UBS). which are distributed by sectors as follows:

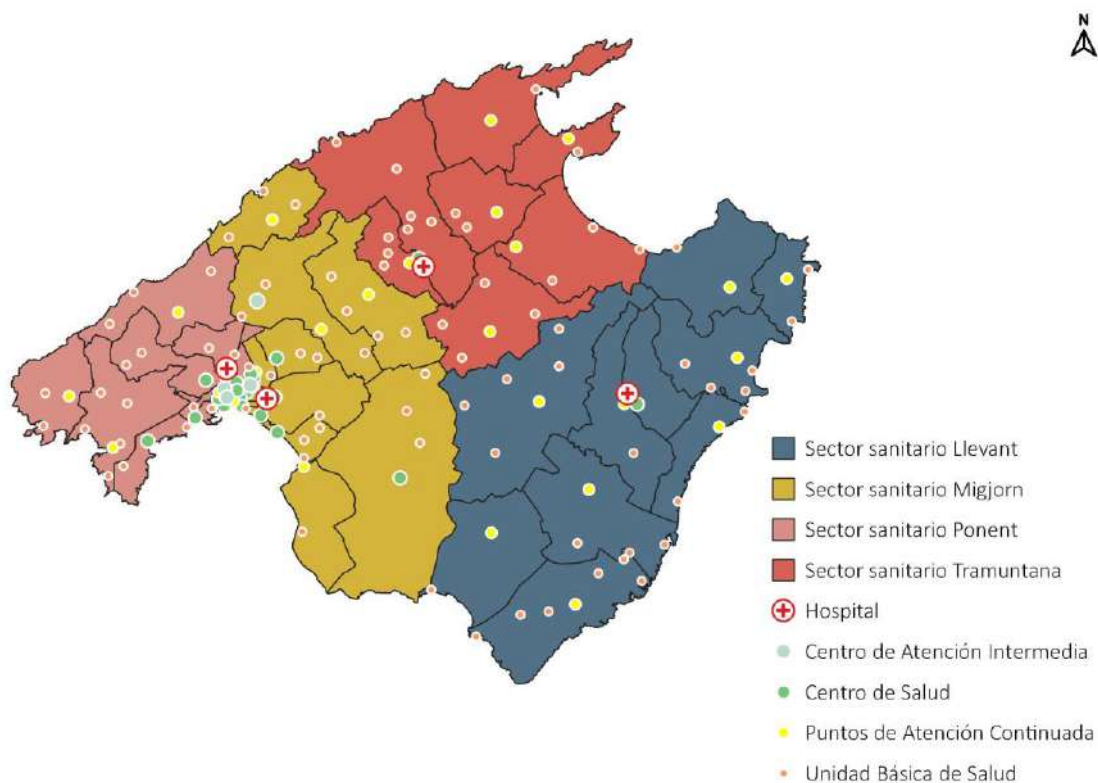


Figure 9.1. Health sectors and facilities on the island of Mallorca (Source: [IB-SALUT](#)).

As can be seen in the figure, the distribution of health facilities on the island responds to the number of inhabitants/users in each sector. A greater concentration of facilities is observed in Palma. Also, the maximum distance between hospitals does not exceed 50 km.

*Table 9.4. Health area division of Mallorca and distribution of facilities (source: own).*

Zone	Basic health zones	hospitals	Health center / continuing care point	Basic health unit
carry	10	one	10	25
Midday	14	one	14	22
Speaker	17	one	17	19
Tramontana	7	one	7	19
TOTAL	48	4	48	85

The following table provides data on the resources of the health system of the Balearic Islands in relation to those of Spain as a whole:

*Table 0.1. Resources of the health system at regional and national level (source: own, based on "key indicators of the National Health System").*

	Balearic I.	Spain
Specialised Medical staff per 1000 inhab.	2	1,97
Medical staff in primary care per 1000 assigned persons	0,62	0,78
Specialised nurses per 1000 inhab.	3,91	3,5
Nurses in primary care per 1000 assigned persons	0,5	0,67
Working hospital beds per 1000 inhab.	2,88	2,95
Seats in day hospital per 1000 inhab.	0,38	0,47

### 9.7. Degree of satisfaction of tourists with disabilities

In 2004, the State Representative Platform for the Physically Handicapped (PREDIF) published a results report on “[Habits and Attitudes towards Tourism of People with Physical Disabilities](#)”. To carry out this report, telephone surveys were carried out with a sample of 7,440 people from the state (14 from the Balearic Islands). The study concluded that the level of satisfaction of the participants was very positive, exceeding 8 points out of 10 in hospitality, customer service, quality of accommodation, conservation of the environment and gastronomy. The worst results were obtained by the price of the trip and the infrastructure of the destination. In the case of the group of people with disabilities surveyed, in general, they also expressed satisfaction with the trips made, with accommodation being the tourist service that provided the greatest degree of satisfaction, with a great difference compared to the other services. However, it must be taken into account that the positive satisfaction of passengers with disabilities is often conditional on the fact that the trips have been made with entities that have organized the trip in a way that makes it more accessible. For its part, a large percentage of travelers dissatisfied with tourist services is detected. On the other hand, 72% of those surveyed with a high level of physical disability said that the tourist services staff knew little or nothing about the specific needs that their physical disability entails.

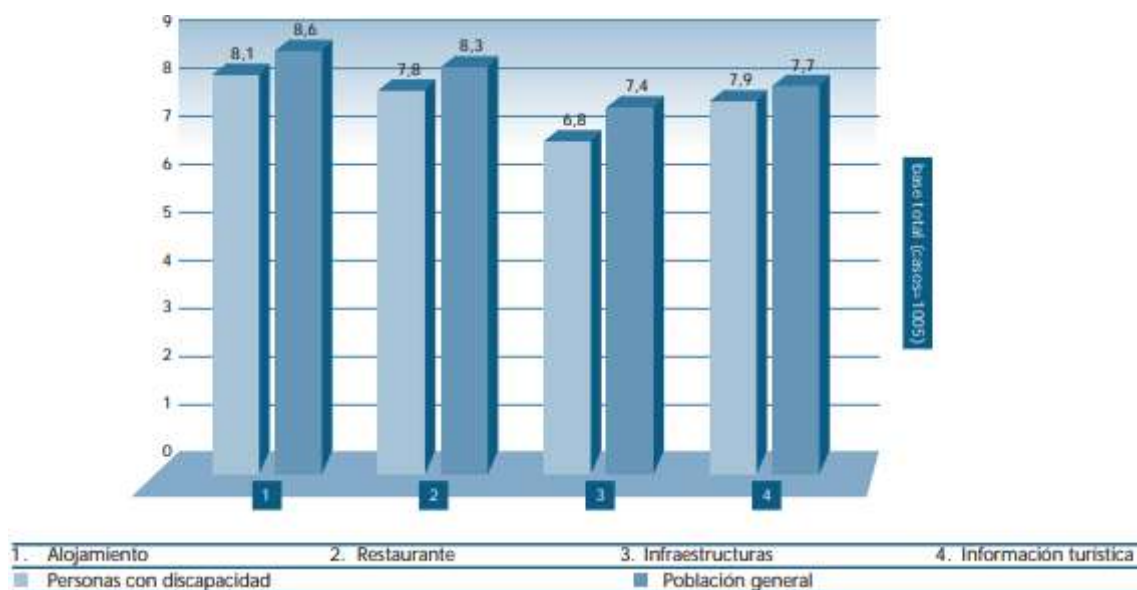


Figure 9.2. Satisfaction with the tourist services of the general population and population with disabilities (1 to 10) (Source: Habits and Attitudes towards Tourism of People with Physical Disabilities).

## 10. LOCAL SATISFACTION

### 10.1. Perception of tourism among the resident population

To assess the degree of local satisfaction with tourism, the results of the 2018 and 2020 “Resident Opinion Survey on Tourism in the Balearic Islands” carried out by AETIB have been used. This survey provides data on three factors: satisfaction, quality of life and identity and heritage<sup>14</sup>:

#### A. Satisfaction

- 71.4% of the interviewed residents agree or strongly agree with the statement "I am very satisfied with tourism in the Balearic Islands" and 20.2% disagree or strongly disagree.
- The percentage of favorable responses rises when asked about tourism in the Balearic Islands in spring (81.1%) or in autumn (79.5%), while in summer a lower result is recorded (60.3%).
- By place of birth of the interviewees, those born in another Autonomous Community answer favorably in 79.4% of the cases, in those born in the Balearic Islands it drops to 68.6% and for foreign residents decreases to 65.5%.
- 78.2% of those surveyed who are or have been related to the tourism sector at a work level have a more favorable opinion than those who have not worked or have anyone in their household who has worked in the sector, with 65.4%.
- In Mallorca, the percentage of satisfied interviewees reaches the lowest percentage of the four islands, with 69%.

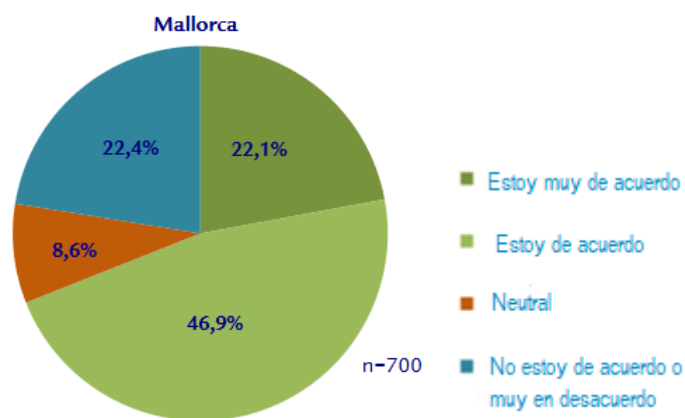


Figure 10.1. "I am very satisfied with tourism in the Balearic Islands" (source: AETIB).

#### B. Quality of life

- 37.5% of respondents consider that tourism helps to maintain their quality of life and 33.3% agree that helps to improve it. On the contrary, 12.7% answered that it has no influence and 16.4% that it harms them.
- 83.1% of respondents with an employment relationship in the tourism sector (or a resident in their household) consider that tourism helps to improve or maintain their quality of life.

<sup>14</sup> The resident population on the Island of Mallorca represents 35.9%, which represents 251 people from the total sample, carried out with 700 surveys.

In the case of respondents with no employment relationship with the tourism sector, the percentage drops to 60%.

- 68.8% of residents born on the Islands answer that tourism helps to improve or maintain quality of life, for residents born in another Autonomous Community the percentage rises to 74.8% and for foreign residents up to 79%.
- In Mallorca, 68% of residents believe that tourism helps maintain or improve their quality of life, this being the lowest percentage of the four islands.

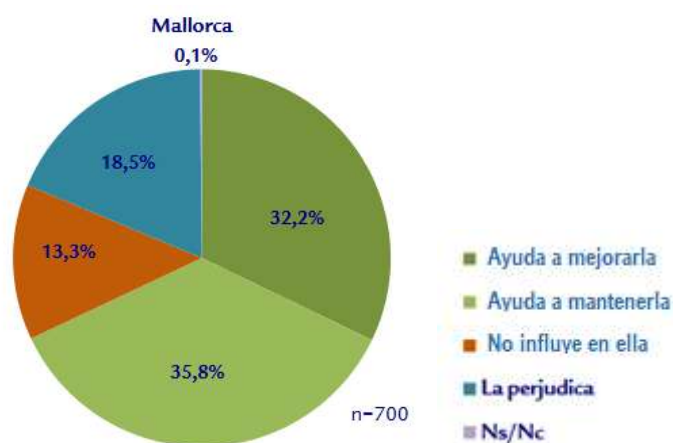


Figure 10.2. "What kind of effect does tourism have on your quality of life?" (source: AETIB).

### C. Community attitude towards tourism: cultural identity and heritage

Regarding the influence that tourism has on the local distinctive character, identity, culture and heritage, opinion polls from 2018 to 2020 show that people who believe that it helps to improve it went from 31% to 39%. On the contrary, the percentage of people who believe that it helps to maintain it went from 46% to 35%. Finally, it remains the same, 23%, individuals who believe that it does not influence or harms them. It should be noted that it is observed that as the studies increase, the percentage that responds affirmatively decreases slightly<sup>15</sup>.

In Mallorca, the percentage of people who do not have a negative view of tourism regarding the cultural and heritage features of the island (helps to improve it/helps maintain it) went from 77% in 2018 to 74% in 2020<sup>16</sup>.

<sup>15</sup> 2018: does tourism help maintain or improve these aspects? They answer affirmatively: 84.5% of respondents with primary studies; 78.2% with secondary education; 74.2% with higher education.

<sup>16</sup> It should be noted that, in the 2018 survey, when asking about cultural heritage in particular, 46.7% considered that tourism helps maintain it, but if asked about natural heritage, a percentage up to 30.6%, believed that tourism is detrimental.

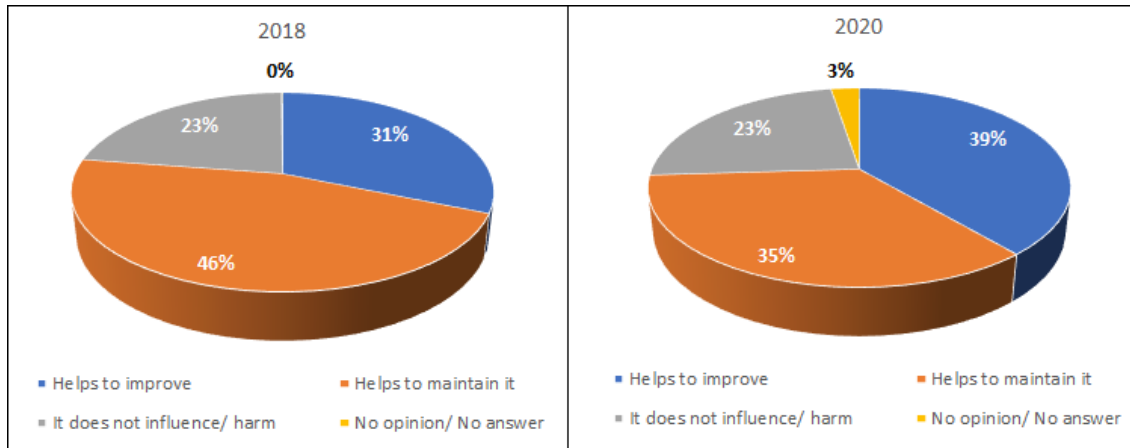


Figure 10.3. "In general, how would you say that tourism influences the distinctive character and identity, culture and heritage of the Balearic Islands?" (source: AETIB).

## 10.2. Ratio between residents and visitors

The local population's perception of tourism also depends to a large extent on the proportion of the number of visitors in relation to the local population. According to the register of residents in Mallorca and the total accumulated number of visitors for 2019 (in 2020 has not been considered a suitable year due to the effect of the pandemic) the ratio was 896,038 people and 11,866,513 tourists.

According to visitor data for 2021 (IBESTAT), at the peak of the maximum number of visitors (August), they would exceed residents, registering a rate of 130 visitors per 100 inhabitants. At the density level, this high point represents a deployment of 326 visitors/tourists per km<sup>2</sup>.

## 10.3. Main residence, secondary residence and tourist accommodation

To a not insignificant degree, the availability and nature of housing, the evolution of prices and the impact of tourist rentals also influence the perception of tourism among residents.

In this sense, the proportion of secondary dwellings with respect to the main dwelling, according to the 2011 census, there were 13 secondary dwellings for every 100 main dwellings. In 2011, 60,990 homes were registered as second residences and 335,878 as main residences, that is, 0.1816 second homes for each main residence.

Regarding the number of tourist accommodation places with respect to the population of Mallorca according to IBESTAT data, based on the number of residents in Mallorca and the maximum number of places available for hotels, apartments and rural tourism in 2019, there are 29.91 places hotel for every 100 inhabitants, 4.23 apartment beds for every 100 inhabitants and 0.99 rural tourism beds.

Table 10.1. Population, places by type of accommodation and rate of places per 100 inhabitants in Mallorca, 2019 (Source: own based on IBESTAT data).

Residents	Type of accommodation	Maximum number of seats	Plus	Rate of places per 100 inhabitants
896,038	Hotels	268,031	June	29.91
	Apartments	37,909	June	4.23
	rural tourism	8,877	September	0.99
<b>Total</b>				<b>35.31</b>

On the other hand, these 35.31 places for every 100 residents of tourist accommodation are distributed 85% of hotel places, 12% of apartment places and 3% of rural tourism.

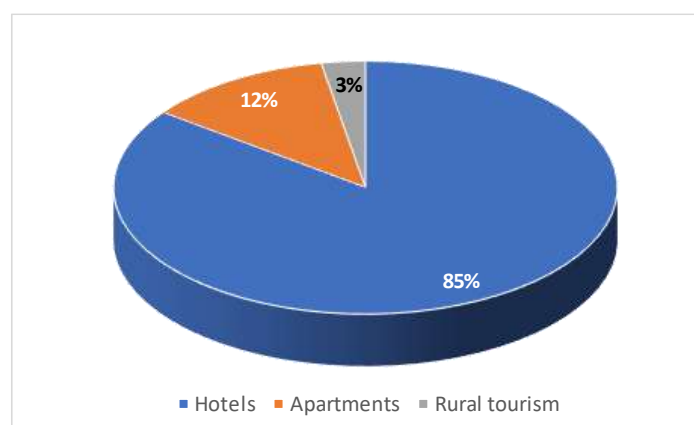


Figure 10.4 Distribution between types of accommodation of available beds per 100 inhabitants (source: own, based on IBESTAT data).

#### 10.4. Land price, housing price and tourist rental

Regarding the evolution of the price of land, a growing trend is observed at all levels of size of municipalities, but mainly in those with more than 50,000 inhabitants (figure 10.5). Different sources attribute part of the price increase to the explosion of tourist rentals, which has become a factor with a negative impact on access to housing. In 2020, the average price was 280.85 euros/m<sup>2</sup>, according to IBESTAT. Figure 10.6 shows the evolution of the price in euros/m<sup>2</sup> in the 2016-2021 period, where it can be seen that, despite certain variations, the trend is increasing at a rate of 2.42 euros/m<sup>2</sup> per quarter.

Another indicator in reference to the price of housing can be the IPV (house price index) that analyses the evolution of prices. Figure 10.7 shows the evolution of the IPV and the quarterly variation rate for the period 2016-2021 added to the quarterly average. It is also seen that the IPV has been increasing despite some negative variation, at a rate of 1.85 points per quarter.



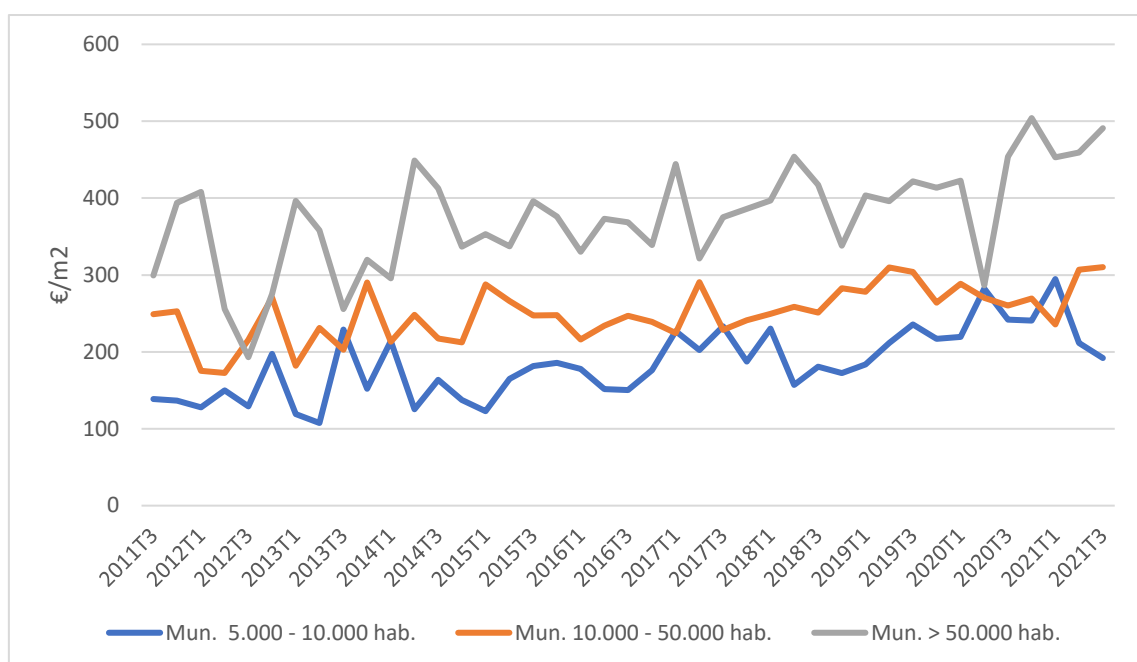


Figure 10.5. Average price per m<sup>2</sup> of urban land in the Balearic Islands by size of municipality (Source: own based on IBESTAT).

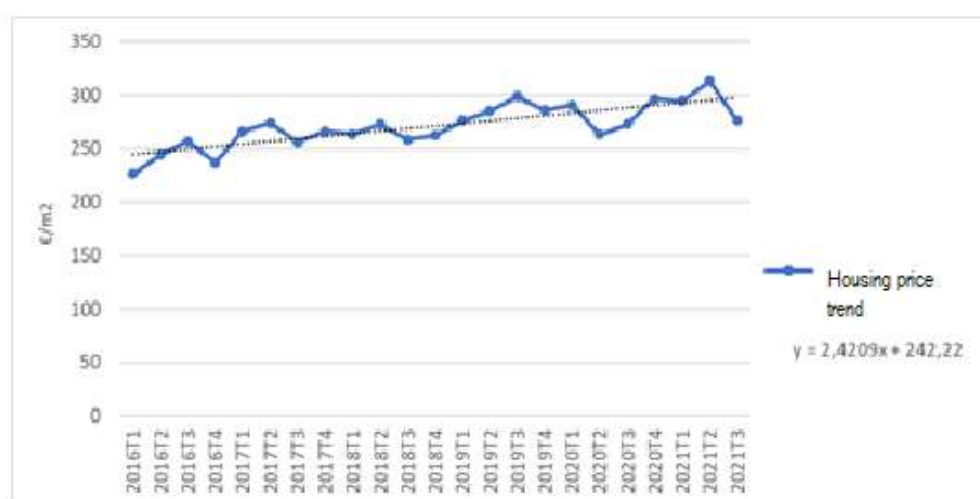


Figure 10.6. Evolution of the average price per m<sup>2</sup> of urban land in the Balearic Islands in the period 2016-2021 (source: own based on IBESTAT).

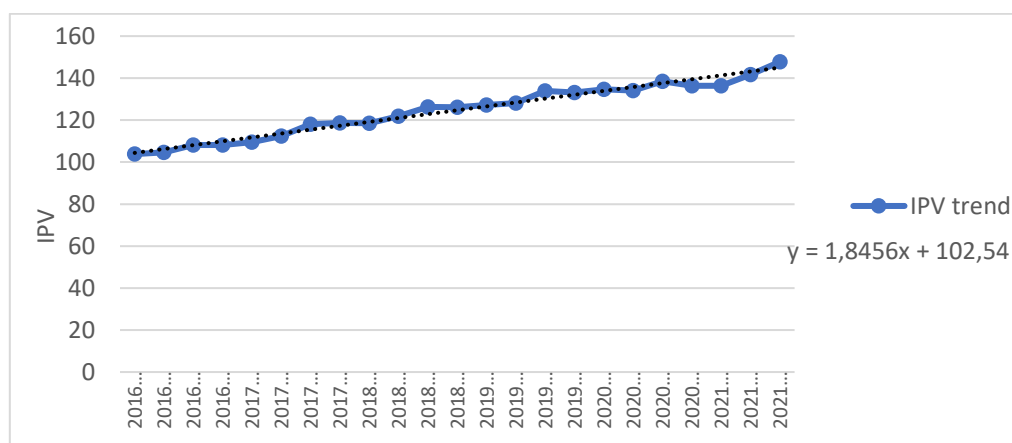


Figure 10.7. Evolution of the quarterly IPV for the period 2016 to 2021 (source: own based on IBESTAT).

Regarding tourist rental, according to data from the Terraferida website, in 2016 more than 78,000 tourist rental places were registered on the AirBnB platform. In 2018 this figure already amounted to 92,500, surely being currently higher. In this sense, in 2017 the city council of Palma implemented a ban on holiday rentals in multi-family buildings.

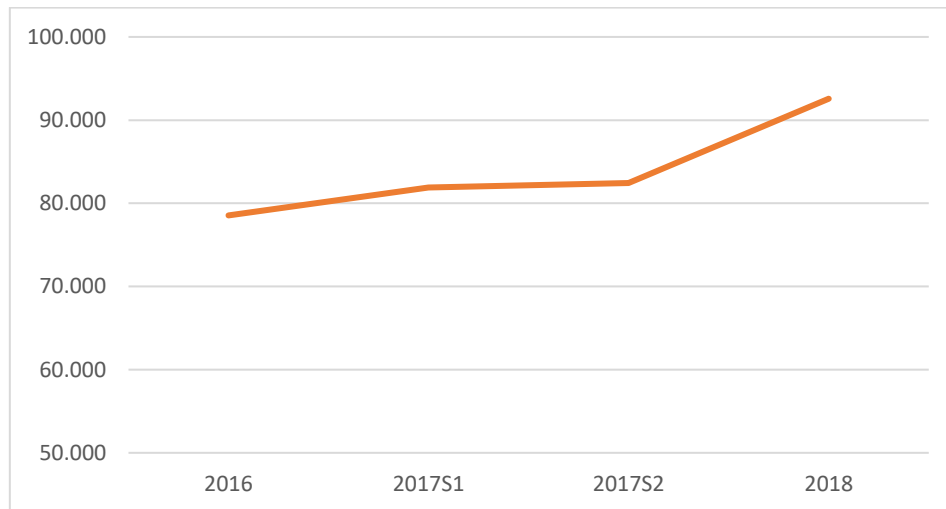


Figure 10.8. Tourist beds on the AirBnB platform in Mallorca (source: own, from Terraferida).

### 10.5. Perception of saturation and overcrowding

According to the end-of-degree project by Serra Llambias (2017)<sup>17</sup>, in his analysis of the perception of saturation, 94.2% of the participants stated that they had a perception of tourist saturation in Mallorca at some point in the year. Among the problems in which this saturation manifests itself, the respondents identify the crowding of people on the beaches as the main problem.

### 10.6. General perception of tourism

By way of conclusion, it can be said that in general terms tourism has a positive majority acceptance as shown by the data from the AETIB survey. However, in recent years, due to some collateral negative impacts of tourist activity (increase in housing prices, overcrowding of spaces, job insecurity...) a critical view has proliferated among part of the resident population, based on the demand for a review of the tourism model and a cap on its growth. This view is perceived in the AETIB survey itself.

<sup>17</sup>Serra Llambias, A. Tourist saturation in Mallorca. Memory of the End of Degree Project. UIB, academic year 2016-2017.

## 11. TOURISM GOVERNANCE, DESTINATION MANAGEMENT

### 11.1. Tourism Strategy Agency of the Balearic Islands (AETIB)

The Balearic Islands Tourism Strategy Agency (AETIB) was created in 2010, although the existence of a public entity with the aim of promoting and managing the destination began in 1987 with the Balearic Tourism Institute (IBATUR). Today, the AETIB is the entity in charge of the general planning and promotion of the economic activity of the Balearic Islands that affects the tourism sector in coordination with the four island councils. It is also in charge of the tourist coordination between public institutions and private entities for the elaboration of the bases of the general planning of the tourist policy. It has 40 technical staff, 10 administrative staff, 1 management secretary and 2 senior managers, in addition to the forecast of 6 temporary positions for 2022.

Among other tasks of the AETIB, the following stand out:

- Management and promotion of tourism quality: training and advising personnel who, directly or indirectly, carry out functions related to tourism quality processes.
- Awarding and management of quality labels.
- Within the improvement of the environment/tourism sector:
  - Carry out projects, activities and actions aimed at improving the tourist environment and in particular, the remodeling and rehabilitation of tourist areas, and all those related to projects financed with funds to promote sustainable tourism.
  - Carry out the projection, construction, conservation, operation and promotion, by itself or through third parties, of infrastructures aimed at improving the tourist environment.
  - Develop and execute actions, among others, of modernization, reconversion and expansion of tourist areas, through the instruments established in the current regulations on land use planning.
  - Acquire natural and patrimonial assets by any means established by law.

The AETIB annually prepares its Action Plan in which it outlines the lines of action. In the Action Plan for the year 2022, it has a sustainability strategy organized through the **Commission for the Promotion of Sustainable Tourism**, which evaluates the projects received that are eligible for financing and controls and monitors them.

Within the lines of action of the Action Plan-2022, in the field of sustainability, line no. 2, along with four of the specific actions planned ought to be mentioned. They read as follows:

2. Strengthen the position of the Balearic Islands as a leading destination in **sustainable tourism** and the development of a circular tourism strategy.

*2.2 Promote the complementary offer through the positioning of destination brands in strategic and sustainable actions.*

*2.3 Development of a circular tourism strategy.*

*2.5 Collaborate with sustainable tourism development programs and policies, improving the effectiveness and coherence of joint action with political and social actors.*

*2.6 Implement the AETIB Carbon Footprint compensation plan.*

In parallel, one of the main instruments of the AETIB, are the Strategic Tourism Segments (SET) consisting of work groups specialized in a tourism product that promote and facilitate the possibilities of meeting between professionals in the sector. Its main goal is to take advantage of the synergies of the public-private cooperation. In short, these are public-private partnerships to develop a higher value-added tourism product with better guarantees. Within the SET, the Ecotourism SET stands out with 9 actions to "improve the tourist destination following the sustainable development objectives (SDG)".

### **11.2. Sustainable Tourism Strategy of the Balearic Islands 2017-2020**

The Sustainable Tourism Strategy (ETS) for the Balearic Islands 2017-2020 establishes among its general objectives some proposals for tourism development in accordance with the established principles of sustainability and environmental conservation.

Apart from the general objectives, the strategy formulates 11 lines of tourism development and elaborates them in 57 specific programs. It can be affirmed that it places the emphasis on promoting quality and excellence, but above all on seasonal adjustment and diversification of supply (Terraferida, 2019)<sup>18</sup>. As indicated by the Terraferida entity, the consequence is an increase in the arrival of visitors in the months of the year outside the summer season and a greater presence in different areas of the island, in other words, "an expansion of the tourist frontier in time and space" (ibid., p. 19). On the other hand, the Social Observatory of the Balearic Islands also criticizes the strategy (2020, p.24)<sup>19</sup>:

*"Despite the intention of making tourism on the islands sustainable, the ETS for the Balearic Islands (2017-2020) does not speak at any time [...] about air, light, and noise pollution; of CO2 emissions; the treatment of hazardous and non-hazardous waste; of tourist saturation; of the hotel sites; of water and air quality; of disposable plastics; of the reduction of cruises in the Balearic ports; it does not even talk about ecotourism or agrotourism (...)."*

### **11.3. Sustainable Tourism Tax (ITS)**

The sustainable tourism tax (ITS) has been created in order to finance, totally or partially, expenses and investments derived from the projects approved by the Governing Council, at the proposal of the Commission for the Promotion of Sustainable Tourism, in order to promote a sustainable, responsible and quality tourism in the archipelago of the Balearic Islands. The management of the tax is based on the setting of priority annual objectives, but considering also a territorial balance among the Balearic Islands. According to the website *illessostenibles.travel*, in the period 2016-2019, after ITS implementation, 13 projects worth 9,120,397.15 euros have been financed in relation to sustainable tourism in Mallorca.

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<sup>18</sup> Terraferida (2019). #BETTERINWINTER or #FULALLYERAROUND? Pissarra magazine no. 154 (pp. 17-19).

<sup>19</sup> VV.AA. (2020). First impacts of covid -19 on the society of the Balearic Islands. Social Observatory of the Balearic Islands.

## 12. INNOVATION

### 12.1. Introduction

Innovation is the introduction of a new product, a new production method or a new form of organization, among other definitions. In short, it is the set of activities that transform an idea or concept into a marketable product or service and that supposes an improvement of the existing offer.

If we stick strictly to innovation, the Balearic Islands have several institutions linked to innovation, practically all of them located in Mallorca, and specifically, in Palma or nearby: the [Institute of Business Innovation](#) (IDI), the [Balearic Foundation for innovation and technology](#) (FundaciónBit), the [Balearic Technological Innovation Park](#) (ParcBit), the Center for Training, Innovation and Development of Vocational Training of the Balearic Islands (CINFP-IB), [the Balearic Islands Business University Foundation](#) (FUEIB) and [the Institute Foundation Health Research Illes Balears](#) (IdISBa).

### 12.2. R+D spending

According to IBESTAT, in 2018 <sup>20</sup>in the Balearic Islands there was a total internal expenditure on R&D of 128,558 k€: 33,950 k€ by the public administration; 50,522 k€ by universities; 43,502 k€ from companies; and 285 k€ for private non-profit institutions. In the 2008-2019 period, spending on R&D has tended to increase.

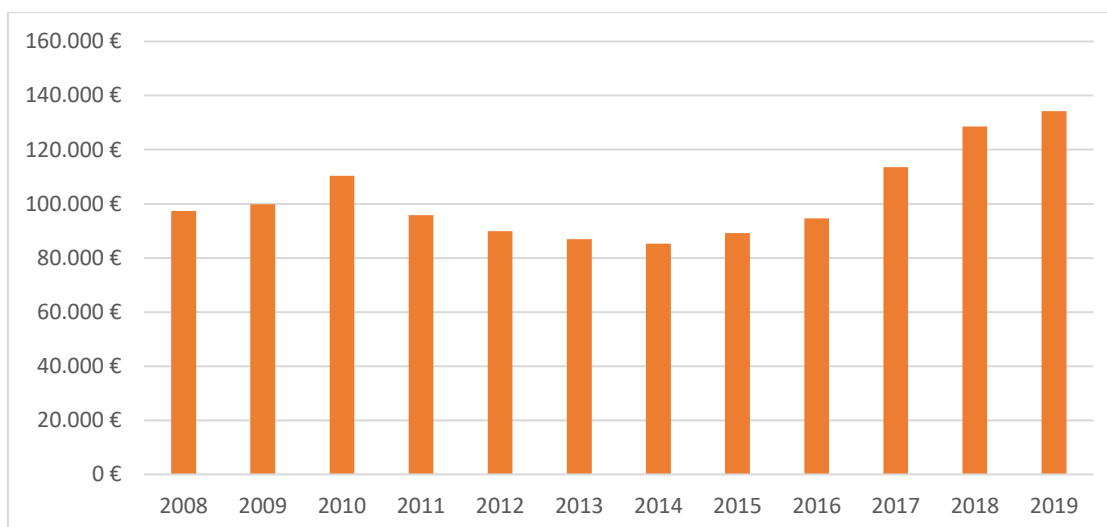


Figure 12.1: Expenditure on R&D in the Balearic Islands in the period 2008-2019 in k€ (source: own based on IBESTAT).

### 12.3. Human resources linked to science and technology, knowledge-intensive sectors and tourism technology

According to IBESTAT, in 2018 <sup>21</sup>there were 2,685 people with full-time R&D-related jobs (511 in public administration, 1,485 in university centers, 682 in companies and 8 in private non-profit institutions). In summary, a clear trend of increasing workers in this sector is observed.

<sup>20</sup> The data for 2018 is presented, since for 2019 it is not broken down.

<sup>21</sup> The data for 2018 is presented, since for 2019 it is not broken down.

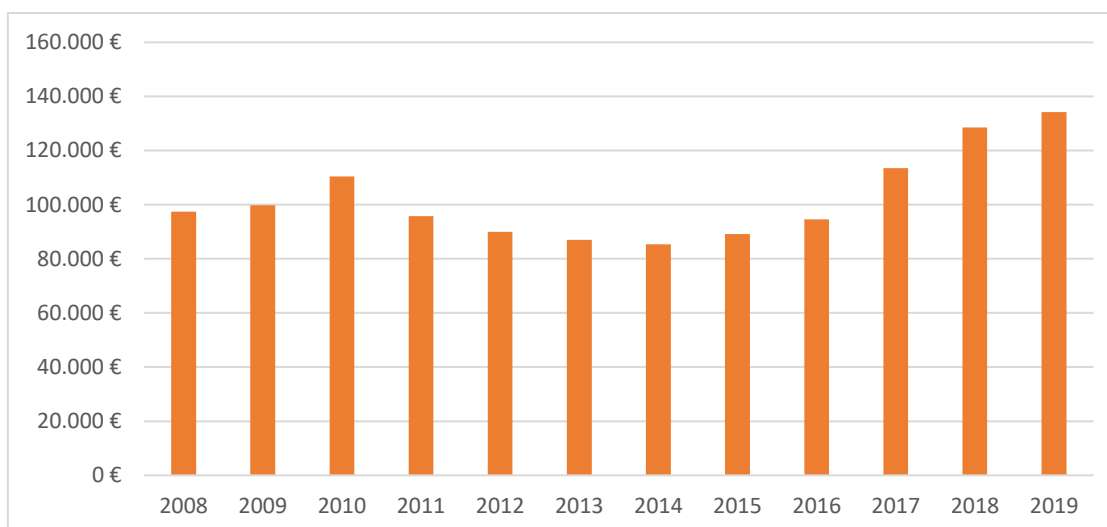


Figure 12.2. Individuals with jobs linked to R&D in the Balearic Islands in the period 2008-2019 (source: own based on IBESTAT).

The Plan for Science, Technology and Innovation of the Balearic Islands 2018-2022, based on a study on the economy of knowledge in the Balearic Islands” states that in the Balearic Islands there are 22,500 companies dedicated to knowledge activities and that the high and medium technology industry is not very important (200 companies and 2,500 affiliations to Social Security). The number of first-class knowledge industrial companies amounts to 2.39% of the companies in the Balearic Islands and 3% of the total number of Social Security affiliations, which is quite close to the number of people with employment linked to the I+D according to IBESTAT.

On the other hand, in terms of research staff, there were 1,902 people (355 in the public administration, 1,274 in university centers, 268 in companies and 6 in private non-profit institutions) in 2018 <sup>22</sup>.

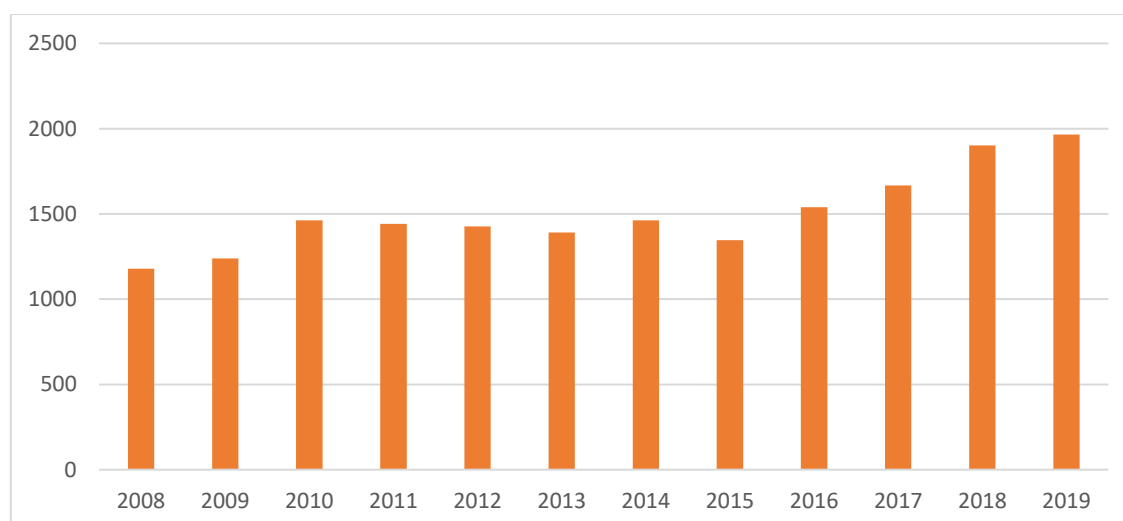


Figure 12.3. Individuals employed in research in the Balearic Islands for the period 2008-2019 (source: own based on IBESTAT).

<sup>22</sup> The data for 2018 is presented, since for 2019 it is not broken down.

According to [Turistec](#), an international cluster dedicated to Information and Communication Technologies applied to Tourism, in 2020 there were 1,242 people employed in tourism technology sectors.

#### 12.4. Patent applications

According to the statistics of the [Spanish Patent and Trademark Office](#) (OEPM), in 2021, 14 patent applications were made in the Balearic Islands. The graph below shows patent applications registered in the Balearic Islands in the period 2012-2021.

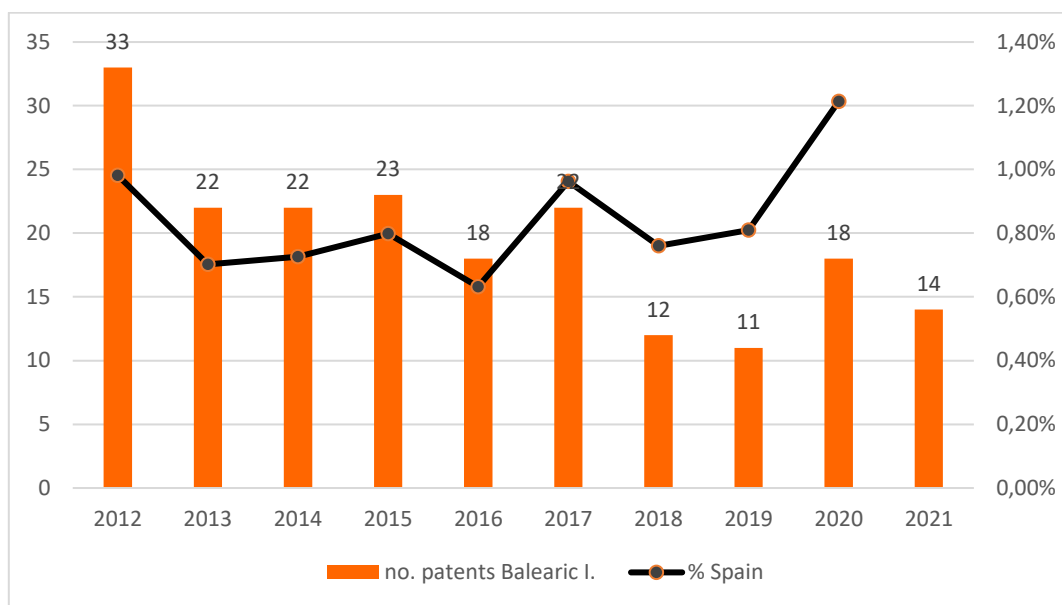


Figure 12.4. No of patent applications in the Balearic Islands in the period 2012-2021 (source: own from the SPTO).

In turn, the SPTO provides data on national patent applications filed by Universities in the period 2007-2020. The University of the Balearic Islands (UIB) has presented 48, which corresponds to 0.7% of the patent applications from Universities in this period.

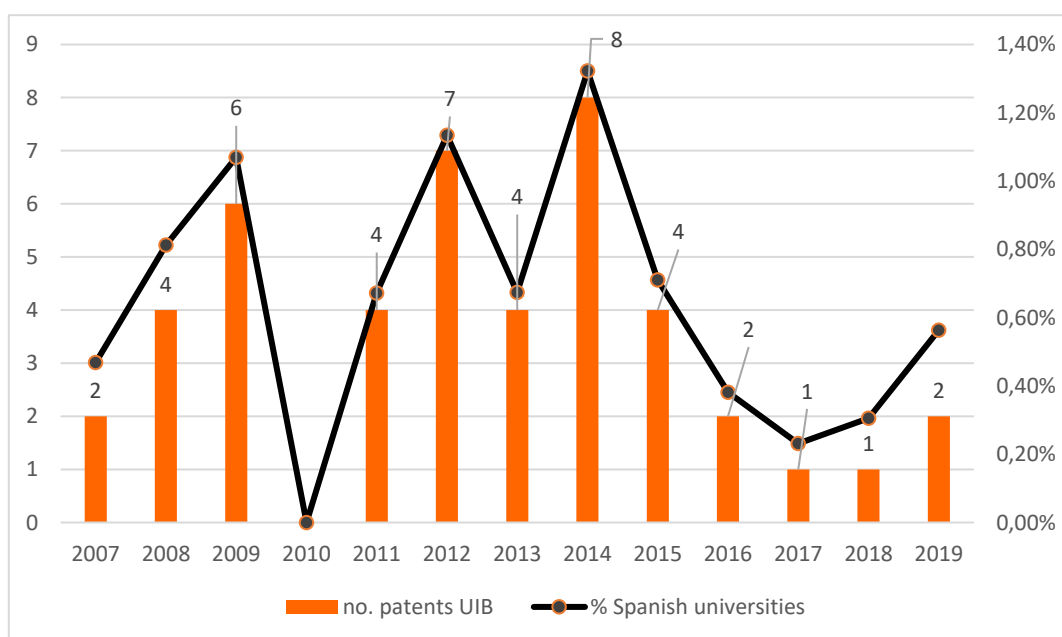


Figure 12.5: No. of patent applications of the UIB in the period 2007-2019 (source: own from the SPTO).





## 12.5. Technology transfer and foreign direct investment

In March 2019, the GOIB approved the [Science, Technology and Innovation Plan for the Balearic Islands 2018-2022](#), which includes knowledge-generating entities, scientific study centers, technological environments and advanced services, interface centers and clusters based on knowledge of the Balearic Islands:

*Table 12.1. Knowledge-generating entities (source: Science, Technology and Innovation Plan of the Balearic Islands 2018-2022).*

<b>University of the Balearic Islands (UIB)</b>	The main body executing R&D activities in the Balearic Islands, with 45.7% of the total expenditure on R&D in 2016 and 68.8% of researchers in the Balearic Islands, according to the survey of R&D activities (2017) of the INE.  In turn, the UIB has 4 institutes of its own: IAC3 (Institute for Computer Applications of Community Code), IUNICS (University Institute for Research in Health Sciences), IEHM (Institute for Hispanic Studies in Modernity) and IRIE (Institute for Research and Educational Innovation).
<b>Mediterranean Institute for Advanced Studies (IMEDEA)</b>	Joint institute with the CSIC that focuses on research in the area of natural resources and with special emphasis on interdisciplinary research in the Mediterranean area.
<b>Institute for Interdisciplinary Physics and Complex Systems (IFISC)</b>	Joint institute with the CSIC focused on research in the field of complex systems. It has been accredited by the State Research Agency as a María de Maeztu unit of excellence.
<b>Institute of Agro-environmental Research and Water Economy (INAGEA)</b>	Joint Institute with the CAIB and the National Institute of Agricultural and Food Research and Technology (INIA). The main lines of research: efficiency in the use of water for plants, food production, soil sciences and plant physiology, fish production in fish farms and animal and plant health and production.
<b>Balearic Oceanographic Center (COB)</b>	New coastal center of the Spanish Institute of Oceanography (IEO). The activity focuses on the multidisciplinary study of the marine environment, ecosystems and living resources, and goes into the knowledge of the oceanographic processes that take place in the western Mediterranean, and particularly in the sea that surrounds the Balearic Islands and the knowledge of the ecology and population dynamics of species subject to exploitation.
<b>Geological and Mining Institute of Spain (IGME)</b>	It has an office in Palma, called the IGME Projects Office, which provides scientific-technical support, coordination and assistance, linked to the development of projects in certain areas, such as everything related to groundwater and seawater.
<b>Balearic Islands Health Research Institute Foundation (IdISBa)</b>	IdISBa works in seven scientific areas of interest, which encompass 46 research groups and more than 550 researchers. It has recently been accredited by the Carlos III Health Institute as a health research center.
<b>Marine Research and Aquaculture Laboratory (LIMIA)</b>	It focuses its research on the development of farming and fattening techniques for marine organisms and support for the fishing sector to diversify its production. The activity of the center has been diversifying and has opened up to other fields of research, always in the world of marine biology

<b>Agricultural and Fisheries Research and Training Institute (IRFAP)</b>	It promotes, develops and coordinates agricultural and fishing research, training and experimentation activities carried out on the island of Mallorca, as well as the transfer of results to the agricultural and fishing sector.
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*Table 12.2. Scientific study centers (source: Science, Technology and Innovation Plan of the Balearic Islands 2018-2022).*

The Menorcan Institute of Studies (IME)
The Institute of Balearic Studies
Sóller Botanical Garden Foundation
Balearic Museum of Natural Sciences in Sóller
Museum of Mallorca, the Museum of Menorca and the Archaeological Museum of Ibiza and Formentera
Balearic Islands Natural History Society (SHNB)

*Table 12.3. Technological environment and advanced services (source: Science, Technology and Innovation Plan of the Balearic Islands 2018-2022).*

Balearic Islands Coastal Observation and Prediction System (SOCIB)	Singular scientific-technological infrastructure (ICTS) managed through a consortium in which the Government of the Balearic Islands (50%), the Ministry of Science, Innovation and Universities (50%) participate to promote R&D in marine sciences, especially in the coastal zone.
Balearic Foundation for Innovation and Technology (Bit Foundation)	The Bit Foundation has three divisions: innovation, technology and communications, and management and support. In the innovation division, it is subdivided into five project-oriented departments: health, electronic administration, tourism, cybersociety, and entrepreneurship; and a last horizontal department of projects and communication of R+D+i.
Animation and Audiovisual Technologies Unit (LADAT)	A benchmark in 3D animation at an international level, both in training in computer animation techniques and technological audiovisual creation in general, as well as in the production of products using these techniques. The areas in which they carry out activities are 3D computer animation, traditional 2D computer-assisted animation, animation motion technique, digital cinematography, visual and special effects for film and television, scripts for film and television, documentaries, audiovisual pre-production and modeling of models.
Technological Institute of Footwear and Related Industries (INESCOP)	National organization that provides scientific and technical services to the footwear, related and auxiliary industries. It has a network of laboratories throughout the national territory, INESCOP Baleares is one of the delegations located in Inca. It is registered as a center of innovation and technology with number 2 in the public registry of the Ministry of Science, Innovation and Universities, created by royal decree that regulates technology centers and support centers for state-level technological innovation.
Territorial Meteorological Center in the Balearic Islands	Delegation of the State Meteorological Agency (AEMET) depending on the Ministry for the Ecological Transition. The actions focus primarily on meteorology and climatology. Projects on weather forecasting make up most of the R&D&i activities to ensure that the evolution of the forecasting service is based on scientific progress and on the maximum use of technological developments.

Balearic Wood Technological Center (CETEBAL)	It is a non-profit association in the Balearic Islands, created with the aim of contributing to increasing the competitiveness of the wood sector in the Balearic Islands, fundamentally in aspects related to quality, technological innovation, training and information.
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Table 12.4. Interface centers (source: Balearic Islands Science, Technology and Innovation Plan 2018-2022).

<b>Scientific interface centers</b>
The Research Support Office (OSR)
University-Business Foundation of the Balearic Islands (FUEIB)
<b>Technology Interface Center</b>
Bit Foundation Innovation Unit
Balearic Technological Innovation Park (ParcBit)
<b>Productive interface center</b>
Institute of Business Innovation of the Balearic Islands (IDI)
Balearic Europe Center (CBE)
Business Federations and Chambers of Commerce

Table 12.5. Knowledge-based clusters (source: Balearic Islands Science, Technology and Innovation Plan 2018-2022).

Biotechnological and Biomedical Cluster of the Balearic Islands (BIOIB)
Cluster of Technological Innovation in Tourism of the Balearic Islands (Baleares.t)
Cluster of Information and Communication Technology companies of the Balearic Islands Applied to Tourism (Turistec)
Cluster of the Chemical Industry of the Balearic Islands (CliQIB)

## 13. SUSTAINABLE CONSUMPTION AND PRODUCTION

### 13.1. Introduction

The Sustainable Development Goal (SDG) no. 12 for the 2030 Agenda focuses on promoting the sustainable management and efficient use of natural resources, the reduction of waste generation and food waste, and the promotion of the environmentally sound management of chemical products in production and consumption practices.

A tourism sector that adopts sustainable consumption and production practices can play a significant role in the transition towards sustainability. For this reason, as stated in goal 12.b of objective 12, it is essential to "Develop and apply instruments to monitor the effects on sustainable development, to achieve sustainable tourism that creates jobs and promotes local culture and products". The Sustainable Tourism Program of the 10-Year Framework of Programs on Sustainable Consumption and Production (10YFP) aims to build on these sustainable development agenda practices, which will include resource-efficient initiatives that will lead to better economic, social and environmental outcomes.

It must be said that, in any case, the Balearic Islands have a high dependence on agri-food products from the continent. According to some sources (Ivan Murray, UIB) around 70-80% of the agri-food products consumed in the Balearic Islands come from abroad. According to the *Farmers Union of Mallorca*, the percentage of agri-food products produced locally (in tourist destinations), is very low and in no case would local production cover enough to feed the population residing in the archipelago, and to a much lesser extent, tourists. In this sense, an entity directly oriented to promoting local and sustainable production, the Association of Organic Farming Producers of Mallorca (APAEMA) calls on the administration to create new infrastructures to improve production and marketing, to promote the public purchase of local products and that, likewise, they are promoted in the hotel sector.

### 13.2. Programs to promote local goods and services among tourism companies

Currently, different programs are being carried out aimed at promoting and encouraging the consumption of local-type goods and services, popularly called "Km 0", among tourist companies in Mallorca. Four programs stand out:

#### A. The strategic tourism plan for Mallorca 2020-2023 (PETM)

The PETM promoted by the Council of Mallorca foresees at least two objectives in the line of promoting collaboration and cooperation between tourism companies and agents that offer local products and services:

- O4. Strengthen and diversify the tourist offer by promoting the value chain of the destination.
- O7. Emphasize the importance of maintaining and conserving the quality of life within the destination, always seeking mutual benefit for tourists and visitors as well as for the resident population.

These objectives are aligned in strategies and lines of work such as the promotion and marketing of the destination through "Improving the offer through initiatives that

enhance ethnographic values and the rationalization of resources." Likewise, in the axis of sustainability, actions are planned to:

- Promote the circular economy in the hotel sector.
- Manage the carbon footprint in the hotel sector.

### **B. Campaigns to promote the consumption of local products**

Majorcan institutions and private agents have been implementing collaboration agreements to promote the consumption of goods and services at the local level. An example is the continuation of the 'Local 100%' campaign with the recent 'Local product is future' promoted jointly by the Council of Mallorca and the Federation of Small and Medium Enterprises of Mallorca (PIMEM). The campaign is intended to transmit, through a series of products presented by boys and girls, the potential of local consumption over Majorcan industry.



Figure 13.1: "Local product is future" campaign (source: PIMEM).

### **C. Platform to promote the circular economy in hotels: FINHAVA**

The Council of Mallorca, TIRME and companies from the hotel and primary sector promote FINHAVA, a technological platform to promote the circular economy, local agriculture and sustainable tourism. It counts on the participation of five of the main hotel chains, six companies for the production and distribution of agricultural products and two technological companies.

FINHAVA makes it possible to trace the route of the food consumed in the hotels participating in the project, calculate the carbon footprint and the reduction of greenhouse gases (GHG), measure the energy they produce, evaluate the volume of food waste they generate and transform it into an organic fertiliser to dedicate it again to cultivation.

The FINHAVA project is an example of public-private collaboration in which administrations, hotels, farmers, waste managers and technology companies have come together to close the production cycle and promote the circular economy in Mallorca. The platform facilitates interaction between all agents in the chain. Thus, the origin of the raw material is guaranteed throughout the process, sustainable, local and ecological agriculture is promoted, and its economic and environmental effects are measured.



Figure 13.2: FINHAVA platform for the promotion of the circular economy in hotels in Mallorca (source: <http://finhava.com>). Informative video: <https://www.youtube.com/watch?v=FKqXYybThxg>

#### D. Others

On the regional broadcast tv IB3-Radiotelevisió de les Illes Balears, there is the program “Uep com Anam ” on the air for 10 years aimed at discovering and promoting the primary sector of the Balearic Islands. Although in an informal and non-systematic way, this program brings closer and helps to popularize the local product among the entire population and, by extension, also tourist services in their widest range.

It is also worth mentioning Hiper Centro, one of the most important department store chains in Mallorca, for years, involved in the sale of products of Balearic origin and support for professionals from the Balearic countryside and sea. According to company sources, the sale of seasonal fruits and vegetables with a local seal rises to 80%, meat to 70% and fish to 50%.



Figure 13.3: Other initiatives that promote the consumption of local products: the IB3 program “Uep com Anam” and the supermarket chain “Hypercentro”.

The Council of Mallorca has one of the Register of companies and tourist establishments of Mallorca that includes 31,737 establishments. The registry classifies tourist establishments into 48 groups or categories, including tourism agencies, hotels, campsites, restaurants, inland tourism, rural tourism, agrotourism, etc. No specific category has been explicitly established for establishments that promote sustainable or ecological experiences. However, there is the category "Agritourism" that has 288 establishments in Mallorca.

#### 13.3. Public programs to promote sustainable local production among local companies

The Department of Agriculture of the Government of the Balearic Islands announced in 2021 a line of aid worth 1,000K€ for projects to transform organic farming. This aid is aimed at promoting organic farming through agri-food transformation projects that promote the



organic sector of the Balearic Islands. (*Resolution of the president of the Agricultural and Fisheries Guarantee Fund of the Balearic Islands (FOGAIBA) calling, for the year 2021, subsidies for investments in the transformation and marketing of organic agricultural products*)<sup>23</sup>.

### 13.4. Bodies of regulation and evaluation of producers of sustainable local production

#### A. Balearic Council for Sustainable Agricultural Production

The Balearic Council for Organic Agricultural Production (CBPAE) is the body in charge of certifying organic agri-food products in the territory of the Autonomous Community of the Balearic Islands. The main objectives of the CBPAE are: the certification of organic food products in the Balearic Islands and the promotion and dissemination of organic farming.

It should be said that organic farming in the Balearic Islands is experiencing almost continuous growth. According to data from the CBPAE itself for 2021, for the whole of the Islands there are 1,020 operators and 37,834 hectares that represent 16% of the useful agricultural area (SAU). This places the Balearic Islands among the leading regions on a national and European scale, being the fourth community with the largest useful agricultural area registered as organic, with 16.4%, behind Catalonia, Andalusia and Murcia.

As for the island of Mallorca, in 2019 it had more than 700 operators and some 29,400 hectares destined for organic agricultural production (16% of the agricultural area).

As for the typology of products, they are classified into 16 categories that range from processed foods, to meats, fruits, sausages, cheeses and others.

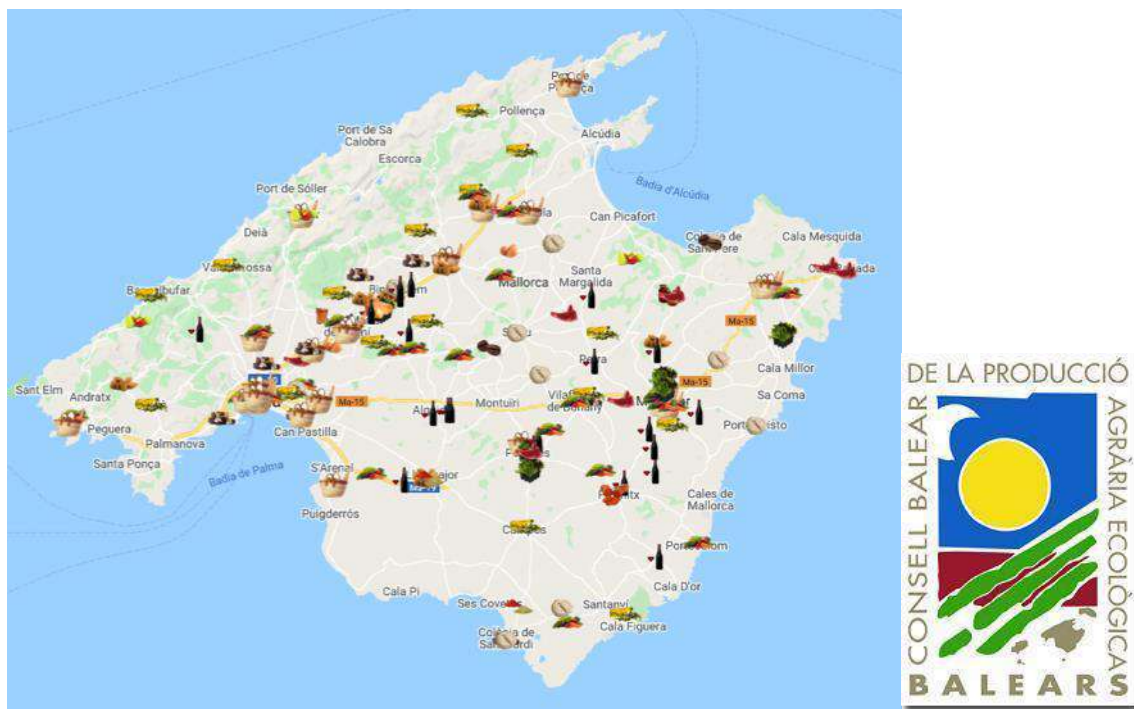


Figure 13.4. Ecological operators in Mallorca registered with the CPAEB (Source: CBPAE. <http://www.cbpaeb.org>).

<sup>23</sup> <https://www.caib.es/govern/sac/fitxa.do?codi=4875393&lang=ca>

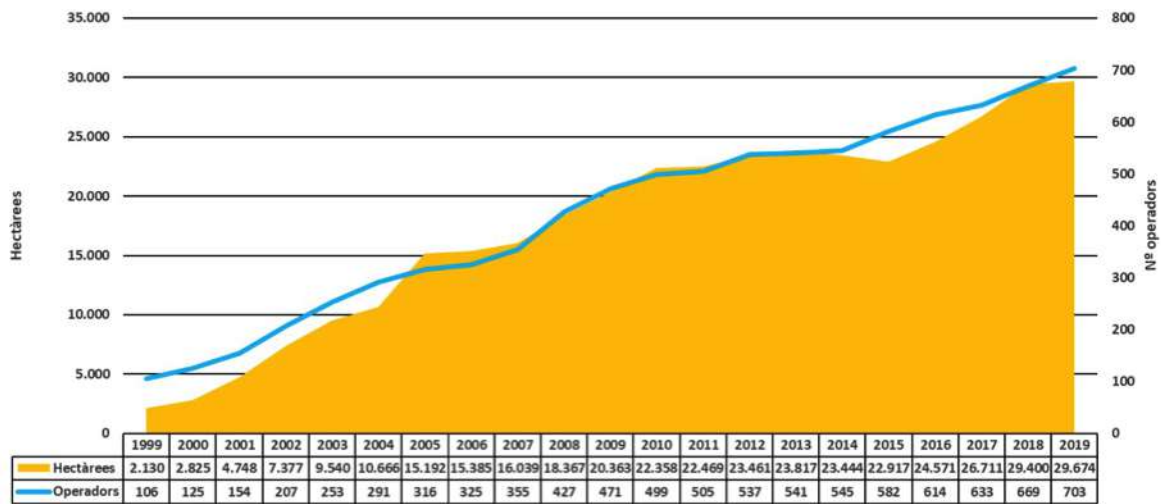


Figure 13.5: Evolution of organic agricultural production in Mallorca in the period 1999-2019 (in hectares of surface area and in number of operators) (Source: CBPAE).

## B. Regulatory council of the generic denomination of integrated agriculture of the Balearic Islands

Integrated production is a system that guarantees a balance between the farmer, the environment and the consumer. It is based on the reduction of the use of chemical products, the rational use of natural resources, the elaboration of high-quality and healthy products, the increase in added value of agricultural products, labeling and guarantee of control. The CRDGAi certifies producers and processors that comply with regulations, crops and registered products. All products that have an integrated production technical standard in the Balearic Islands can be labeled. Currently 45 types of crops fall into the integrated productions regulation.

## C. Association of organic farming producers of Mallorca (APAEMA)

Despite not being a regulatory body, there is the Association of Organic Farming Producers of Mallorca (APAEMA) which brings together 63 organic producers and processors with a wide variety of products: fruit, vegetables, sausages, oil, wine, bread, honey, almonds, etc.

According to APAEMA, the destination of sale of the productions of associated producers and producer-processors is eminently local (85%). Not surprisingly, the "short" marketing channels are an essential part of the Balearic ecological agricultural sector, both in primary and processed products. Cooperatives play a primary role in the buying and selling of nuts and some distributors are entering the marketing of other products.

### 13.5. Certifications, eco-labels and CSR in companies and tourist establishments

A growing number of companies and tourist establishments in the Balearic Islands are certified by an Environmental Management System (EMS), voluntary systems that allow organizations to assess and improve their energy or environmental behavior and disseminate timely



information to the public and other stakeholders<sup>24</sup>. Among these certifications, the SICTED seal, the Q-ICTE seal and the European EMAS certification stand out.

### A. SICTED quality

The SICTED (Integral System of Spanish Tourist Quality in Destination) makes up a project to improve the quality of tourist destinations promoted by the Spanish Tourism Institute (TURESPAÑA), which works with tourist companies/services, with the aim of improving the experience and tourist satisfaction, a focus on continuous improvement and an attitude of recovery and enhancement of resources and space. The distinctive "Tourist Quality Commitment" credits and recognizes the effort and commitment to quality and continuous improvement made by the participating companies, while distinguishing the establishment from the competition.

The SICTED badge is awarded to tourist companies/services that have accredited compliance with the established requirements. It is valid every two years, although it is subject to an annual follow-up evaluation.

The first step is the adhesion of the destination to the SICTED system. Once this is done, the tourist companies/services of the destination can in turn join the system. Once the company/service has joined, the system is implemented through technical assistance visits by approved consultants. At the same time, they are offered training, collective workshops and working groups to improve the destination. Once the implementation has been carried out, an annual compliance evaluation is carried out and, once passed, the SICTED distinction for Tourism Quality Commitment is obtained. Today, in Mallorca there are 16 destinations with a SICTED label and 602 member companies.

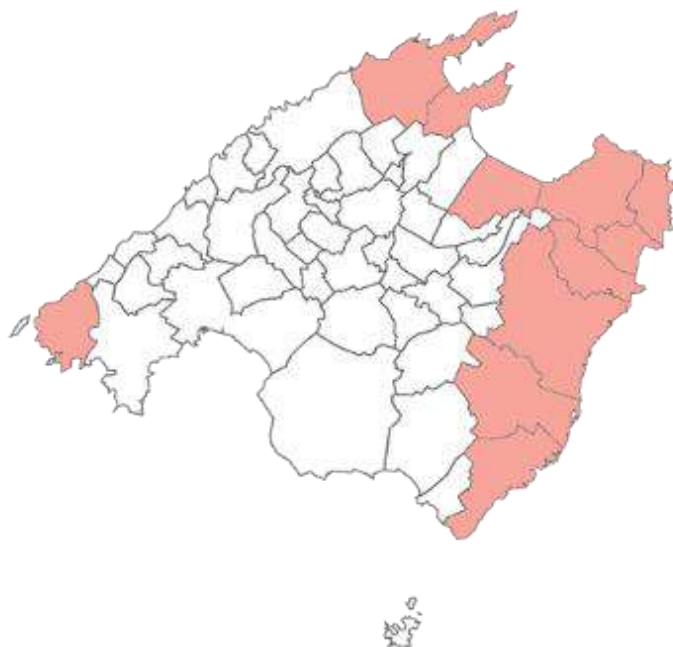


Figure 13.6: SICTED destinations in Mallorca (Source: AETIB).

<sup>24</sup> According to the Survey of water and energy consumption in tourist establishments in the Balearic Islands in 2017, 27.6% of the establishments surveyed have a WMS or an energy management system

## **B. Tourism quality Q-ICTE**

The "Q" seal is the most visible element of the Spanish Tourism Quality System. The "Q" is a recognition of the effort made by tourism companies in the implementation of Quality Systems. Establishments endorsed by the "Q for Quality" must pass audits that ensure that the provision of service is a guarantee of quality and safety.

The Q-ICTE Tourism Quality Seal is a Certification Entity for Quality Systems specially created for tourism companies, made up of different Spanish tourism associations, among others. It is a Spanish, private, independent, non-profit body, responsible for certifying, managing and ensuring the correct use of the "Q" Mark.

Currently, in Mallorca there are 34 tourist entities certified with this label, mostly beaches, but also hotels ports.

## **C. EMAS Certification**

The Community Environmental Management and Audit Scheme (*Eco-Management and Audit Scheme* -EMAS) is a voluntary environmental management system promoted by the EU. It allows organizations of any nature, including tourism, to evaluate and improve their environmental behavior and disseminate timely information to the public and other interested parties. In 2021 there were a total of 74 companies in the Balearic Islands with EMAS registration, of which 64 are in Mallorca, most of them being tourist companies or organisations.

### **13.6. Profile of tourists interested in local and sustainable products**

A survey is available based on data from the issuing markets prepared by *Criteo*<sup>25</sup> where the states are classified according to the degree of receptivity and awareness of environmental issues. The study concludes that the most sustainable tourists are those from Germany, France, the US and Spain, in that order. 22% of trips to Germany and 17% of trips to Spain are canceled or not made for reasons related to sustainability, specifically to reduce the carbon footprint.

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<sup>25</sup> French multinational company working in the field of online advertising.

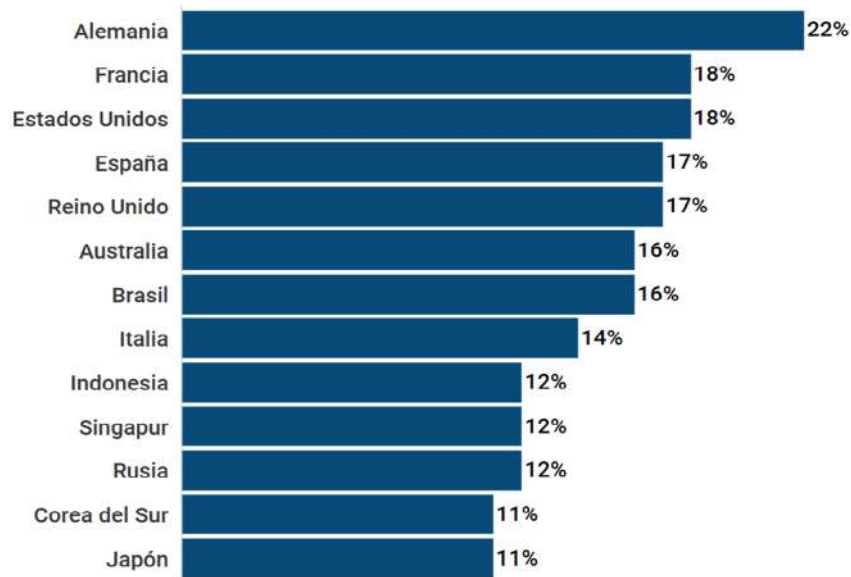


Figure 13.7: More sustainable tourists (Source: Criteo).

As for Spanish tourists, and in particular the youngest, they are increasingly aware of the environment and the conservation of the planet. Sustainable tourists are those who have given up traveling at least once in the last six months to reduce their carbon footprint. The type of sustainable tourist profile is younger than the average, 62% are the so-called *millennials* or belong to generation Z.

## 14. NATURAL HERITAGE and ENVIRONMENTAL MANAGEMENT

### 14.1. Protected areas and threatened species

Mallorca has a large number of protected natural spaces grouped into different categories. In the present analysis, in order to simplify and avoid overlaps, the focus is placed on those related to the Natura 2000 Network (SCI, ZEPA and ZEC) and those protected spaces in Law 5/2005, of May 26, for the conservation of spaces of environmental relevance (which includes, among others, natural parks and nature reserves), whose designations, in some cases, overlap.

In total, Mallorca has 103 protected natural spaces, many with shared protection figures. The protected area is 23.8% of the island, leaving out the Serra de Tramuntana Natural area, a laxer protection figure. If this large Natural Area is counted, the protected terrestrial surface amounts to 1,172 km<sup>2</sup>, equivalent to 32.24% of the island. Regarding the management of these spaces, it should be noted that 69 have an approved Management Plan and in another 15 spaces the management plan is in writing process.

Table 14.1. Types of protected areas in Mallorca and area (source: own from CAIB and xarxanatura.es).

space typology	number of spaces	Total area (Ha)
National Park	1	1,316.00
Natural Park	5	19,387.21
SCI (XN 2000)	84	71,168.50
SPA (XN 2000)	37	65,610.81
ZEC (XN2000)	66	42,452.40
Natural reserve	1	458.04
natural monument	2	496.00
Natural area	2	61,961.00

On the other hand, there is an important protected maritime area, specifically 1,310.23 km<sup>2</sup><sup>26</sup>.

At the level of flora and fauna species, the following table indicates the conservation status categories and the number of approved conservation plans.

Table 14.2. Species of flora and fauna of Mallorca according to conservation status category and plan (source: own from the Balearic Catalog of protected species).

Conservation status category	Group	Number of species	Number of management plans
In danger of extinction	Flora	15	10
	Fauna	13	9
Vulnerable	Flora	8	3
	Fauna	25	11
Special interest	Flora	4	-
	Fauna	2	-
Under special protection regime	Flora	16	3
	Fauna	206	5
Special protection	Flora	39	9
	Fauna	4	-
Total	Flora	82	25
	Fauna	250	25

<sup>26</sup> It includes the Cabrera Archipelago Maritime-Terrestrial National Park.

The following table shows the species with a recently approved plan and the conservation status or category given to them in the Balearic Catalog of protected species.

Table 14.3. Fauna species of Mallorca with an approved conservation plan (source: own from the Balearic Catalog of protected species).

Category	Common name	Scientific name	Plan Period
In danger of extinction	Majorcan midwife toad	<i>Alytes muletensis</i>	2021-2027
	Big footed bat	<i>Myotis capaccini</i>	2014-2020
vulnerable	Black tortoise	<i>testudo graeca</i>	2021-2027
Under special protection regime	Balearic lizard	<i>Podarcis lilfordi</i>	2021-2027
	Booted eagle	<i>Hieraaetus pennatus</i>	2009-2020
	Ladder bat	<i>Myotis ladder</i>	2014-2020
	Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	2014-2020

In the Balearic Islands there are approximately 1,750 species of native plants. Due to the geographic isolation, in all the islands, and logically in Mallorca, evolution has generated endemism, that is, species with a small geographical distribution area and only found in a specific place (stream, ravine, islet, etc.). In all the Balearic Islands there are a total of 173 endemic plants, of which 125 can be found in Mallorca.

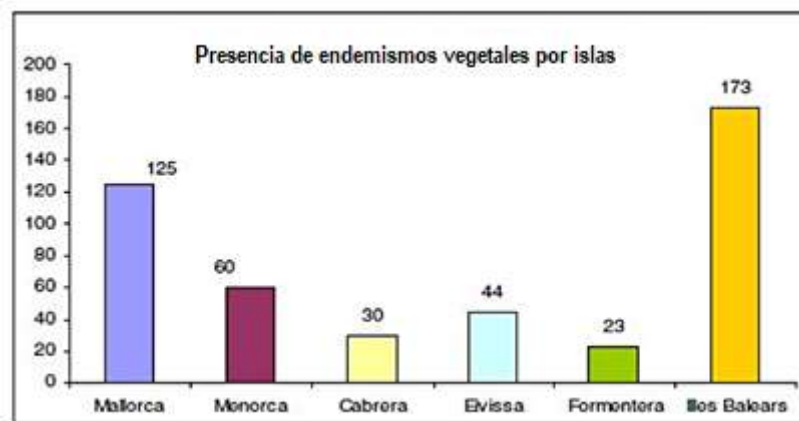


Figure 14.1: Endemic plant species in the Balearic Islands (source: <https://biodiversitatvegetal.wordpress.com>).

## 14.2. Beaches

Given the central role of the beaches in Balearic tourism, a specific analysis is made of the situation of these spaces, notorious by their tourist component but which are also the object of conservation policies.

According to the PIAT, there are, in Mallorca 244.37 ha of beaches distributed in 272 places<sup>27</sup>. The territorial system with the largest beach area is that of Bades de Pollença and Alcúdia. The calculation of the sitting space ratio shows that in two systems the resulting value is below 2 m<sup>2</sup>, which indicates an implicit risk of saturation. In fact, only two of the systems exceed 5 m<sup>2</sup> per space (Bades de Pollença and Alcúdia and Migjorn). In terms of occupancy, only two territorial systems (península de Llevant y litoral de Ponent) reach a 25% of beaches with high occupancy. None of the territorial systems reaches a 30%.

<sup>27</sup> It is likely that this figure does not include smaller coves. On the web portal gozalaplaya.com in Mallorca there are up to 326 beaches.

Table 14.4. Parameters of the beaches according to the territorial systems of Mallorca (source: own, from PIAT Mallorca, 2020).

Territorial system	S beaches (m2)	Total "seats"	m2/square ratio	Number of beaches	Highly used	% highly used
Bahías de Pollença y Alcúdia	896,211	166,507	5.38	54	9	16.67
Península de Llevant	371,176	168,886	2.19	4.5	12	26.67
Migjorn	331,045	33,542	9.87	22	4	18.18
Platja de Palma - Cap Blanc	238,141	118,994	2.0	10	2	20.00
Litoral de Ponent	323,680	181,408	1.78	57	16	28.07
Costa de Llevant-Sud	120,978	81,421	1.48	43	8	18.60
Sierra de Tramuntana	87,044	42,700	2.03	31	2	6.45
Área Metropolitana	75,453	37,727		10	2	20.00
Total	2,443,728	831,185	-	272	55	19.33

### 14.3. Land stewardship agreements

The Custody of the Territory of the Balearic Islands Initiative, ICTIB, is a non-profit organization established in 2007 that promotes land stewardship agreements. The latter is understood as the set of strategies and instruments that involve owners, managers and users of the territory in the conservation and proper use of natural, landscape and cultural values, and which materialize in voluntary and private agreements between owners, managers or users and what are called stewardship entities. The objectives and values that appear in the agreements connect the conservation of biodiversity with agricultural and forestry practices that respect the environment. Regarding the main objective of the agreements, the most widespread is the conservation of fauna species (41%), followed by the promotion of traditional land management (29%) and the conservation of flora species (14.5%). As for the main values that motivate the agreements, the most common are the species included in the Annexes of the Birds Directive (41%), local varieties and/or traditional agricultural practices (17%), habitats of community interest (16%), priority habitats (10%) and landscape value (9%). Most of the agreements are on land where the main use is cultivation (73%), being much lower pasture (15%) and forest use (6%).

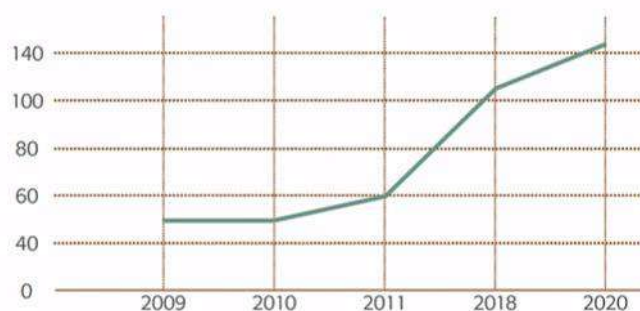


Figure 14.2: Evolution of custody agreements signed in the Balearic Islands (source: ICTIB).

The 2020 update shows an increase in both agreements and hectares in custody, as well as entities involved, with a total of 144 agreements in all the Balearic Islands, adding up to 11,304 hectares. Mallorca is the island with the most entities, agreements and area with a stewardship agreement, with 13 stewardship entities and 105 agreements, which cover 8,585.6 ha.

#### 14.4. Sustainable Tourism Tax

Since July 1, 2016, the Sustainable Tourism Tax is applied to all stays in tourist accommodation in the Balearic Islands. The monetary fund collected is used for investments aimed at offsetting the territorial and environmental impact of tourism. To date, the thematic area that has benefited the most, both in terms of the number of projects and the economic amount, is that of the environment, far from the rest.

Table 14.5. Projects financed by the ITS by thematic area and with associated amount (source: own from [illesostenibles.travel](http://illesostenibles.travel)).

thematic area	Number	Amount (€)
<b>Environment</b>	<b>66</b>	<b>17,210,555.70</b>
sustainable tourism	13	9,120,397.15
historical heritage	6	1,226,859.19
Training - Employment	8	5,480,000.00
Scientific investigation	15	356,000.00
Social Rent	12	
Total	120	33,393,812.04

Below, as an example, three environmental projects financed with the ITS are shown:

- Signposting the cycle path plan (€370,678).
- Acquisition of the state “es Canons” for the extension of the Llevant Natural Park (€6,770,000).
- Electrification of public water network vehicle fleet Manacor (€310,970) and Valldemossa (€36,905).

#### 14.5. Ecotourism resources and environmental labels linked to tourism activity

According to the official tourism website of the Balearic Islands, in Mallorca there are up to 55 resources linked to ecotourism and they are classified into the types indicated below:

Table 14.6. Ecotourism resources in Mallorca (source: own, from the official website [illesbalears.travel/ca/mallorca/](http://illesbalears.travel/ca/mallorca/)).

Type	Number
Natural Protected Areas	10
Public Estates	14
Marine Reserves	6
Bird watching (hides)	16
interpretation centers	9
Total	55

Regarding environmental labels for organizations and companies, two types stand out: on the one hand, recognitions at the municipal level and, on the other, companies linked to tourism activity.

In terms of municipalities, two of them can be highlighted: Alcúdia, declared an ecotourism municipality (1992), and Escorca, recognized with the *Biosphere distinction Responsible tourism* (2015).

As for companies, there are a dozen tourist establishments or service companies with eco - labels, which respond to three types and are indicated in the following table:

Table 14.7. Eco -distinctions or eco -stamps in Mallorca according to type and location (source: own).

Badge/ seal	Name	Type	Place/s
<i>Biosphere Responsible tourism</i>	Best House Best place	Tourist accommodation services	Alaró, Port de Pollença
	H10 Blue Mar (Boutique Hotel)	Hotel	Camp de Mar
	H10 Casa del Mar	Hotel	Santa Ponça
	H10 Punta Negra (Boutique Hotel)	Hotel	Costa d'en Blanes
EU Ecolabel	Es Rivetó Hotels, AIE/ Sunwing Resort Bouganvilla	Tourist accommodation services	Cala Bona, Son Servera
	Turysa/ es Bauló Petit Hotel	Tourist accommodation services	Can Picafort
<i>Travellife Sustainability Tourism</i>	BC Agency	Tour operator	Palma
	Intercruises Shoreside &Port Services	Tour operator	Varies localitats de Mallorca
	Heliexperiences	Helicopter departures	Marratxí
	Yachtexperiences	yacht outings	Palma
	LifeExperiences	event agency	Palma

#### 14.6. Natural hazards

Within the context of climate change (section 8), the main threats besetting Mallorca in terms of natural risks are forest fires and storms with the risk of flooding.

With regard to the risk of fire, the data has been presented in section 8.8 Damage due to forest fires.

As for storms and floods, section 8.5 has analyzed the existing planning in this regard. On the other hand, in the last 20 years there have been three episodes with fatalities:

- 2007. Puigpunyent. 1 fatality.
- 2018. Storm that affected east of Mallorca. The downpour caused 13 deaths and one disappearance as there were rains of more than 200 l/m<sup>2</sup> in the basin of the torrent de ca n'Amer, which caused it to overflow at various points.
- 2020. Glòria Storm. 1 fatality.



## 15. CULTURAL HERITAGE AND TRADITIONS

### 15.1. Autonomous legislative base in cultural matters

- Law 6/1994, of December 13, on the attribution of powers to the island councils in matters of historical heritage, sociocultural promotion, sociocultural animation, legal deposit of books and sports (BOCAIB no. 159, of 29/12 /1994).
- Decree 17/1997, of January 30, creating the Balearic Advisory Council for Culture (BOIB no. 21, of 02/18/1997).
- **Law 12/1998, of December 21, on the historical heritage of the Balearic Islands (BOCAIB no. 165, of 12/29/1998).**
- Law 4/2003, of March 26, on museums in the Balearic Islands (BOIB no. 44, of 04/03/2003).
- **Law 15/2006, of October 17, on archives and documentary heritage of the Balearic Islands (BOIB no. 152, of 10/28/2006).**
- Law 19/2006, of November 23, on the library system of the Balearic Islands (BOIB no. 170, of 11/30/2006).
- Decree 61/2007, of May 18, regulating the Single Registry of Foundations of the autonomous community of the Balearic Islands and organizing the exercise of the protectorate (BOIB no. 77 of 05/24/2007).
- **Decree 14/2011, of February 25, which approves the Regulation of archaeological and paleontological interventions of the Balearic Islands (BOIB no. 37, of 03/12/2011).**
- Decree 35/2011, of November 11, of the President of the Balearic Islands, conferring the exercise of the guardianship of foundations in the scope of the autonomous community of the Balearic Islands (BOIB no. 176, of 11/24/2011).
- Law 3/2015, of March 23, which regulates cultural, scientific and technological development patronage, and establishes tax measures (BOIB no. 44, of March 28, 2015).
- Decree 48/2018, of December 21, which approves the Statutes of the Institute of Balearic Studies.
- Decree 50/2018, of December 21, approving the Statutes of the Institute of Cultural Industries of the Balearic Islands.
- **Law 18/2019, of April 8, on the safeguarding of the intangible cultural heritage of the Balearic Islands (BOIB no. 43, of April 13)**
- Decree 38/2019, of May 17, which establishes the general principles and complementary regulations regarding museums and museum collections in the Balearic Islands.
- Law 2/2019, of January 31, on the delegation of powers to the Insular Council of Mallorca of the powers that, as managing administration, are now exercised by the Administration of the autonomous community of the Balearic Islands in relation to the Museum of Mallorca.

### 15.2. Material heritage

Material heritage in Mallorca is divided into Assets of Cultural Interest (BIC) and Cultural Assets (BC). According to the Heritage Law, Assets of Cultural Interest (BIC) is the figure of protection regulated by Law 16/1985, of June 25, on Spanish Historical Heritage. These are the most relevant assets they can correspond to any property or movable object of artistic, historical, paleontological, archaeological, ethnographic, scientific or technical interest, which has been declared as such by the competent administration. Documentary and bibliographic heritage,

archaeological sites and zones, as well as natural places, gardens and parks, with artistic, historical or anthropological value, classified in various categories can also be protected under one of the following: monument, historical complex, historical garden, historical site, site of ethnological interest, archaeological zone, paleontological zone. BCs are movable and immovable assets that -despite not having the relevance of BICs- have sufficient significance and value to constitute an asset to be uniquely protected. The Council de Mallorca has an online viewer where the BICs and BCs are located according to the aforementioned categories. Table 15.2 indicates that the municipalities with the most protected assets are Palma, Lluçmajor and Manacor.

Table 15.1. Types of BC and BIC (source: own)

Type of Assets of Cultural Interest (BIC)	Type of Cataloged Goods (BC)
Factory buildings	Residential buildings
Residential buildings	Commercial buildings
Commercial buildings	Public use buildings
Entertainment buildings	Factory buildings
Institutional buildings	Village
Religious buildings	Possessions
Defensive architecture	Religious buildings
Maritime signals	Ethnological constructions
Urban sets	Bridges
Ethnological constructions	
Roads	
Gardens	
Archeological sites	
Picturesque place	
Wayside crosses	

Table 15.2. Distribution by municipalities of the BIC and BC (Source: own from the Ministry of Culture and IDE Mallorca).

Municipality	Culture Ministry	%	IDE Mallorca	%
Alaró	36	1.81	20	1.29
Alcúdia	54	2.71	35	2.26
Algaida	37	1.86	29	1.87
Andratx	15	0.75	18	1.16
Ariany	3	0.15	16	1.03
Artà	66	3.32	47	3.04
Banyalbufar	13	0.65	10	0.65
Binissalem	3	0.15	10	0.65
Búger	8	0.40	19	1.23
Bunyola	4	0.20	16	1.03
Calvià	59	2.97	42	2.71
Campanet	14	0.70	7	0.45
Campos	102	5.13	88	5.69
Capdepera	65	3.27	28	1.81
Consell	3	0.15	3	0.19
Costitx	15	0.75	11	0.71

Municipality	Culture Ministry	%	IDE Mallorca	%
Deià	18	0.90	24	1.55
Escorca	46	2.31	33	2.13
Esporles	12	0.60	11	0.71
Estellencs	5	0.25	5	0.32
Felanitx	70	3.52	55	3.56
Fornalutx	7	0.35	7	0.45
Inca	29	1.46	22	1.42
Lloret	14	0.70	12	0.78
Lloseta	8	0.40	6	0.39
Llubí	27	1.36	20	1.29
Llucmajor	178	8.95	103	6.66
Manacor	159	7.99	90	5.82
Mancor de la Vall	6	0.30	6	0.39
Maria de la Salut	7	0.35	8	0.52
Marratxí	16	0.80	9	0.58
Montuïri	23	1.16	20	1.29
Muro	34	1.71	28	1.81
Palma	220	11.06	141	9.11
Petra	45	2.26	22	1.42
Pollença	81	4.07	65	4.20
Porreres	36	1.81	32	2.07
Puigpunyent	19	0.96	13	0.84
Sa Pobla	23	1.16	13	0.84
Sant Joan	10	0.50	10	0.65
Sant Llorenç	28	1.41	34	2.20
Santa Eugènia	16	0.80	12	0.78
Santa Margalida	50	2.51	33	2.13
Santa Maria	10	0.50	14	0.90
Santanyí	74	3.72	115	7.43
Selva	18	0.90	11	0.71
Sencelles	43	2.16	29	1.87
Ses Salines	24	1.21	17	1.10
Sineu	36	1.81	26	1.68
Sóller	44	2.21	36	2.33
Son Servera	24	1.21	21	1.36
Valldemossa	28	1.41	37	2.39
Vilafranca	4	0.20	8	0.52
<b>Total</b>	<b>1989</b>	<b>100.00</b>	<b>1547</b>	<b>100.00</b>

### 15.3. Incidence and potential of cultural tourism

Although it is not the most popular option in the Balearic Islands, cultural tourism has a certain incidence. Indeed, one may talk about the occasional cultural tourist, that is, those who do not have the culture, history or heritage of the Balearic Islands as their main motivation for their trip but that undertakes some cultural activity during the stay. According to some authors (Melis Gomila, L., 2021.) the profile of the tourist received by the islands is not far from the profile of the cultural tourist, so the conventional tourist who visits the islands can be

considered a "potentially cultural tourist". In this sense, the author points out: "in order to get them [potentially cultural tourists] interested in culture and heritage, mechanisms and actions must be put in place that are effective during the tourist's stay, since it is at this moment when he/she decides, normally on an improvised manner, to carry out a cultural activity" (p.145).

Table 15.3. Comparison between general characteristics of the cultural tourist and the generic tourist of the Balearic Islands (source: Melis Gomila, 2021 <sup>28</sup>).

Características			Equivalencia parámetros	
Parámetro	Turista cultural	Turista Baleares	Si	No
Edad	22-44	30-44		
Nivel educativo	Medio-alto	Alto		
Planificación viaje	Cuenta propia	Turoperador		
Noches estancia	4-7	6		
Como viaja	Con pareja	Con amigos		
Poder adquisitivo	Medio-alto	Medio-alto		
Motivo viaje	Cultura e/o historia	Clima, playas, paisaje y tranquilidad		

In response to the indicator "existence of a list of examples of cultural heritage of the destination and its most outstanding attractions", the Balearic Government website [www.illesbalears.travel](http://www.illesbalears.travel) has a search engine for heritage elements by category: island, municipality and type of element (contemplates about thirty categories). In total, a wide and varied repertoire of up to 178 heritage resources appear, with description, photographs, location (in the Google Maps application) and contact information, in four languages. In Mallorca, 16 resources are added in the "fiestas and traditions" section, and 24 resources in the "gastronomy" section.

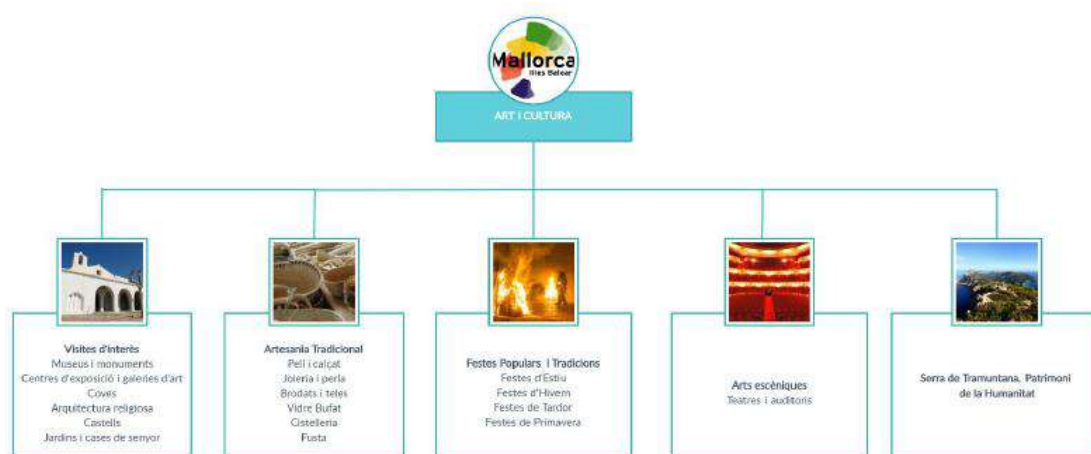


Figure 15.1. Diagram of cultural resources on the Council's tourism web portal (source: Melis Gomila, 2021)

On the other hand, the Council of Mallorca, within its catalog of cultural activities, offers the so-called "Cultural routes through Mallorca" with proposals of routes with external companies with the indicated prices. Up to 48 itineraries are offered (24 for the foreign part of Mallorca + 24 for Palma). They give a complete vision of the proposed topics together with an explanation at the foot of the monument. In the selection of proposals, the most emblematic heritage of

<sup>28</sup> Melis Gomila, L. (2021). Museums and cultural tourism in the Balearic Islands. Doctoral Thesis, UIB.

the island has been taken into account as well as the topics that may be of most interest to the Majorcan population.

#### 15.4. Archaeological heritage

Based on the archaeological heritage, an explanatory brochure called *archeosites* has been drawn up, which concentrates the most representative sites on each island. On the other hand, the Council of Mallorca, within its catalog of cultural activities, offers the so-called "Heritage Routes. Proximity Archaeology", bringing together the different archaeological sites and museums of Mallorca in a modern and stimulating way.

*Table 15.4. Heritage routes. Proximity archeology of Mallorca (source: own from the Council of Mallorca).*

Municipality	Route	Considerations
Artà and Santa Margalida	Route of the dolmens of the bay of Alcúdia	Visit of the only preserved dolmens in Mallorca: Dolmen de Son Bauló (Can Picafort) and Dolmen de s'Aigua Dolça (Bethlehem).
Manacor	A territory with history	Route through the most emblematic elements of the history of Manacor: the s'Hospitalet Vell site, the Son Peretó basilica complex and the Manacor History Museum.
Artà	Their countries. The wall of the colossi	One of the most monumental sites on the island determined by the presence of a great wall from the Balearic period, visit the Artà Museum where the history of the "foners" is told.
Llucmajor	Capocorb Vell. The talayotic village	The most important Talayotic settlement on the island and the most powerful nucleus.
Alcudia	Pollentia. The empire arrives in Mallorca	Route through the Roman city of Alcúdia, Pol·lèntia, with a visit to the treasure house, the forum and the Roman theatre.

#### 15.5. Intangible heritage: intangible assets declared by UNESCO and Law 18/2019

On November 16, 2010, the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage of UNESCO included "El cant de la Sibil·la " de Mallorca in its list.

Law 18/2019, of April 8, on the safeguarding of the intangible cultural heritage of the Balearic Islands established a triple category of the Balearic intangible heritage:

- a) *Manifestations common to all the islands*, representative of a shared identity that the Government of the Balearic Islands recognizes as Assets of Shared Intangible Cultural Interest (BICIMCO).
- b) *The most representative manifestations of the intangible cultural heritage of each of the islands* that the respective island councils declare Assets of Intangible Cultural Interest (BICIM).
- c) *Assets or manifestations that, despite not having the relevance that would allow them to be declared Assets of Intangible Cultural Interest, have sufficient significance and value*

to constitute an asset that must be uniquely protected, that the respective island councils<sup>29</sup> declare as Intangible Cataloged Assets (BCI).

The same Law, in its second additional provision, states that the manifestations declared Festivals of Cultural Interest through Law 1/2002, of March 19, on popular and traditional culture of the Balearic Islands, are now considered Assets of Cultural Interest Intangible (BICIM). In the case of the island of Mallorca, the following festivals appear:

*Table 15.5. Festivals of Cultural Interest in Mallorca declared BICOUNCIL OF MALLORCA (source: CAIB).*

BICYM	BOIB
Festa de Sant Antoni de sa Pobla	<u>(BOIB no. 165, 11/10/2015)</u>
Festa del Ball dels Cossiers d'Alaró	<u>(BOIB no. 165, 11/10/2015)</u>
Festa del Firó de Sóller	<u>(BOIB no. 165, 11/10/2015)</u>
Festa de Sant Joan Pelós de Felanitx	<u>(BOIB no. 165, 11/10/2015)</u>
Festa dels Cavallets de Felanitx	<u>(BOIB no. 165, 11/10/2015)</u>
Festa del Ball dels Cossiers de Manacor	<u>(BOIB no. 165, 11/10/2015)</u>
Festa del Sermó de l'Enganalla de Llucmajor	<u>(BOIB no. 86, 07/07/2016)</u>
Festa del Ball dels Cossiers de Montuïri	<u>(BOIB no. 131, 10/20/2018)</u>

At this time, the process of inventorying the intangible cultural heritage of Mallorca has begun with the files corresponding to the category of "productive activities, processes and techniques" with the geographical focus in the *Pla de Sant Jordi* area of Palma. On the other hand, in 2019 a line of mobility subsidies related to intangible heritage was opened.

## 15.6. Intangible heritage: fairs

Popular fairs are a unique event in Mallorca, both because of their roots and because of their wide distribution throughout the island. They are organised in half of the municipalities, concentrated in 5 months, in spring (from mid-April to early June) and in autumn (from early September to early December). They are shown in the following table:

*Table 15.6. Popular fairs in Mallorca (source: own based on the Calendar of fairs and markets in the Balearic Islands, drawn up annually by the DG for Trade and Business and <https://firesifestesdemallorca.com/>).*

	Town	Event	Dates <sup>30</sup>
1.	Porreres	Diada d'Agricultura Ecològica	04/14
2.	Sta. Maria del Camí	Sa Fira	04/28
3.	Costitx	Costitx en Flor	05/01
4.	Son Carrió	Fira Ramadera	05/12
5.	Puigpunyent	Fira ecològica artesana i pagesa	06/02
6.	Son Servera	Firó del medi ambient	06/02
7.	Selva	Fira de ses Herbes	09/06
8.	Vilafranca	Fira del Meló	09/03
9.	Lloret de Vistalegre	Fira des Sequer	07/09
10.	Artà	Fira agrícola i ramadera	09/09

<sup>29</sup>The island councils are entrusted with the task of regulating and promoting this safeguard, as well as making this heritage known, promoting it and investigating it.

<sup>30</sup>It refers to the date of 2019.

	Town	Event	Dates <sup>30</sup>
11.	Sóller	Fira de la Mar	09/15
12.	Lluc	Fira Serra de Tramuntana	12-13/10
13.	Llucmajor	Fira Darrera	10/13
14.	Felanitx	Fira del Pebre Bord	10/20
15.	Inca	Fira de la Terra	10/20
16.	Muro	Fira de la Carabassa	03/11
17.	Marratxí	Fira de Tardor	03/11
18.	Llubí	Fira de la Mel	10/11
19.	Pollença	Fira de tardor	16-17/11
20.	Caimari	Fira de s'Oлива	16-17/11
21.	Calvià	Fira de feines de tardor des Capdellà	11/17
22.	Sa Pobla	Fira de l'arròs pobler i sa marjal	23-24/11
23.	Manacor de la Vall	Fira de la Muntanya i dels Esclata-sang	24-25/11
24.	Montuïri	Fira de la Perdiu	01/12
25.	Sineu	Fira de Sant Tomàs	08/12



Figure 15.2. Mallorca fairs (source: own).

### 15.7. Sustainable tourism tax

In Mallorca there are six historical heritage projects funded by the sustainable tourism tax (ITS). These are the following:

- Dynamization, conservation and enhancement of unique markets and fairs (Mallorca and the Balearic Islands). 250,000 euros.

- New venue for the Balearic Islands Symphony Orchestra (Palma). 1,676,185 euros.
- Restoration project of the castle of Cabrera. 859,105 euros.
- Recovery of the hydraulic system of the Galatzó public estate (Calvià). 784,838 euros.
- Rehabilitation of sections of the walls of Alcúdia. 442,020 euros.
- Reorganization of the Velodrome Park (Palma). 80,000 euros.



## **16. MOBILITY**

### **16.1. Introduction**

Mobility in Mallorca has a double component, given the insular fact, that is, there is mobility or transport from the continent to the island (by plane or boat) and also, internal circulation. In relation to this second component, the academic geography of the last quarter of the 20th century has defined Mallorca as a single urban-metropolitan system. Within this group, the specific weight of Palma is usually highlighted (often described as macrocephaly), although in recent years there has been a tendency towards a greater dispersion of urbanisation to configure what could be defined as a large urban area with a main centre and several secondary centres.

Within this context, the effect of tourism gives mobility a much greater weight than would correspond to it in terms of population.

Moving on to specific data, the island of Mallorca has a high rate of motorization, to which the rental vehicle segment contributes decisively. In 2020, there were 788,506 motor vehicles in the Balearic Islands (according to IBESTAT and the General Directorate of Traffic, DGT), which represents 895.9 vehicles per 1,000 inhabitants. This is still much more than the 684,714 vehicles that there were in 2016. Then, according to the DGT and based on the registers by province, in the Balearic Islands there were 618.4 cars for every 1,000 inhabitants, a much higher figure compared to Spain's average, 499.3 cars for every 1,000 inhabitants. In fact, it is the province with the highest number of cars per capita. With the strong increase experienced in the 2016-2020 period, the motorization rate in the Balearic Islands and, by extension, in Mallorca, has gone up notably.

To all this, Law 10/2019, of February 22, on climate change and energy transition, published in the BOIB no. 27, of March 2, 2019, although it focuses on greenhouse gases (CO<sub>2</sub>), points to mobility as the main cause of emissions together with the production of thermal power plants.

### **16.2. Continent-island mobility**

96.5% of the tourists who arrive in Mallorca do so by plane, while only 3.5% do so by boat (Coll Ramis, 2016). According to more recent data, from 2019, the percentage of arrivals by boat would have grown slightly to 5.5% and later, due to the effect of Covid-19, the difference would have shortened even more, with 84% and 16% respectively, due to the strong impact of the pandemic on air transport.

As for the set of arrivals, there is a big difference between the summer and winter periods, especially in terms of air traffic. The maximum was reached in 2019 with a figure of more than 2 million people arriving by plane in July, equivalent to a monthly average of almost 70,000 people/day. In the month with the least activity, in January, 414,000 people arrived, which is equivalent to about 13,360 arrivals/day. As for the average stay of tourists arriving in Mallorca, it is estimated at 7.15 days.

Table 16.1. Arrivals by plane and ship to Palma in the period 2020-2021 (source: own from IBESTAT).

	Arrivals by plane (Palma)	Boat arrivals (Palma) <sup>31</sup>
2020	3,043,624	495,052
2019	14,840,735	811,978

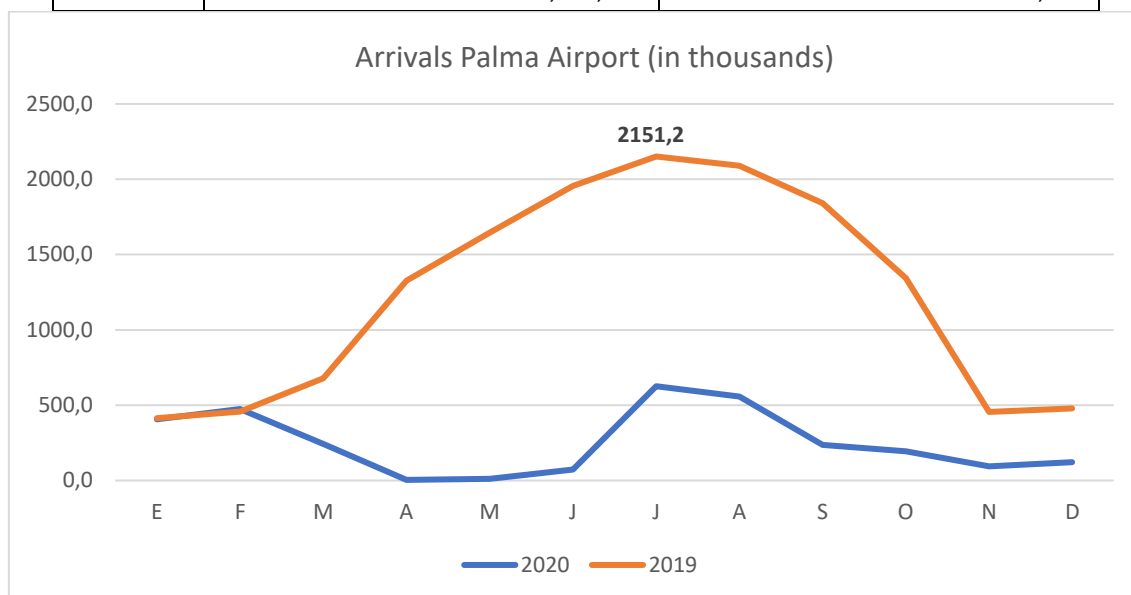


Figure 16.1. Plane arrivals at Palma airport in the 2020-2021 period (source: own from IBESTAT).

As for arrivals by ship, they are much lower than those of air transport. The main traffic, 59%, comes from the Iberian Peninsula, while the movement from the rest of the Balearic Islands accounts for 37%. The percentage distribution was practically unchanged between 2019 and 2020, before and during the pandemic.

### 16.3. Island's mobility and modes of transport

Concerning the road network, Mallorca has 1,770 km of road network, which is equivalent to almost 2 km of road for every 1,000 inhabitants. As indicated in the following table, the bulk of the road network is made up of "complementary primary roads" (the rest of the network of general interest apart from the roads with greater capacity, which constitutes, with the primary network, a network that encompasses the entire island) and secondary roads (roads that transcend the municipal area).

Table 16.2. Majorcan road network according to road typology (source: own, based on the Road Sector Master Plan, 2009).

	Length (km)	Percentage (%)
Primary	352.8	19.9
Complementary primary	551.4	31.2
Secondary	593.08	33.5
not main	273.04	15.4
<b>TOTAL</b>	<b>1770.32</b>	<b>100</b>

<sup>31</sup> In Mallorca there is also the port of Alcúdia, which receives some 250,000 passengers/year (Ports de Balears, 2020), but it must be said that some 200,000 of these come from Menorca, so its total weight compared to the port of Palm is small.

To understand mobility flows in relation to tourist activity, it should be noted that 88% of hotel beds are concentrated in three sectors:

- Bay of Palma and extreme west (Andratx).
- North Sector: Pollença- Alcúdia - Can Picafort.
- East sector: Cala Rajada- Porto Cristo- Porto Colom- Cala d'Or - Cala Llombards.

However, it must be borne in mind that 68% of tourists stay in hotels and that in recent years the supply of tourist apartments (regulated and non-regulated) has increased notably, much of them on rural land in the inland areas.

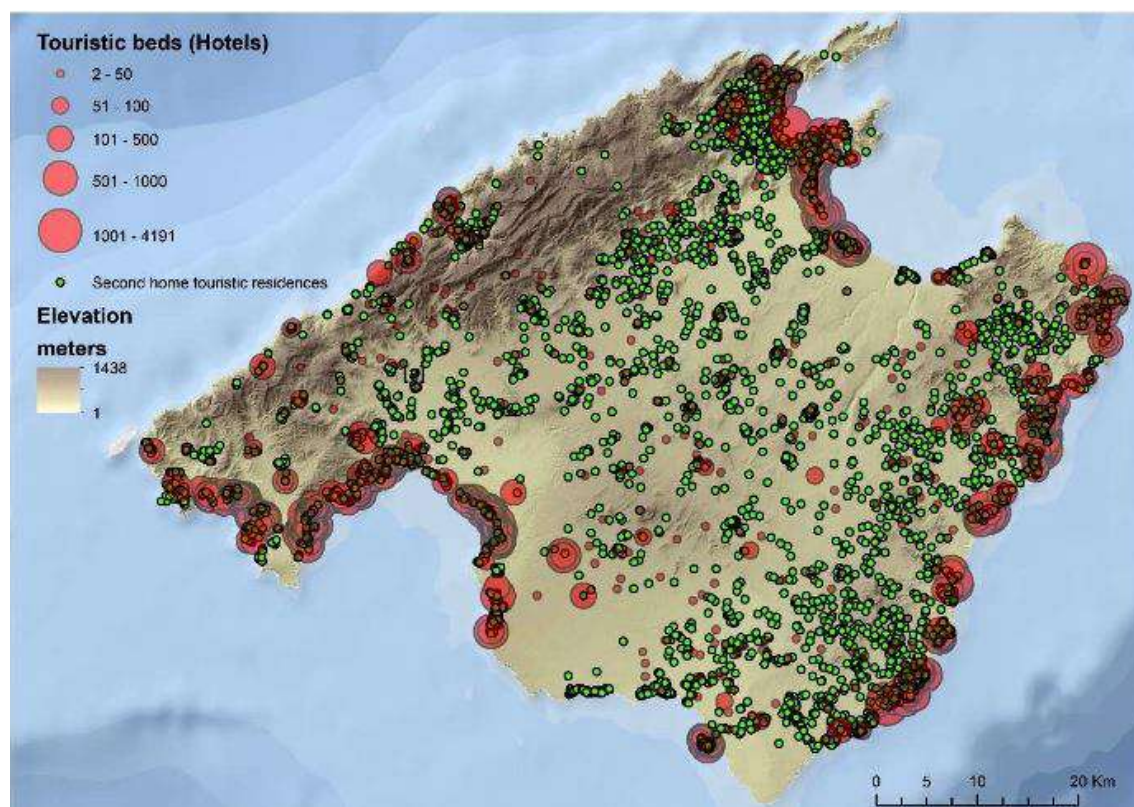


Figure 16.2. Distribution of tourist beds in Mallorca (Source: Ruiz - Perez and Seguí-Pons, 2020 <sup>32</sup>).

As for the modes of transport used by tourists in Mallorca, they are represented in the following figure:

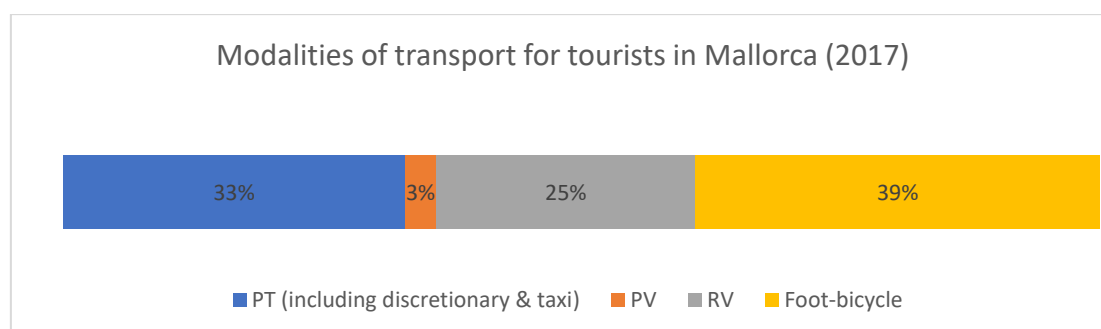


Figure 16.3. Tourist transport modalities (Source: own, from the PDSMIB-2017).

<sup>32</sup> Ruiz - Perez i Seguí-Pons. Transport Mode Choice for Residents in a Tourist Destination: The Long Road to Sustainability (the Case of Mallorca, Spain). Sustainability 2020, 12(22), 9480.

As can be seen in the figure, the private vehicle (PV) and the rental vehicle (RV) add up to 28% of trips. It should be noted that in Mallorca there are a total of 189 car rental companies.

For its part, according to the Mallorca Transport Consortium, there are 53 tourist destinations connected through the public transport network.

The following graph shows the hourly distribution of trips. The peak is observed in the time slot from 10:00 a.m. to 1:00 p.m., with the 10:00-11:00 a.m. being the time slot registering the highest number of displacements.

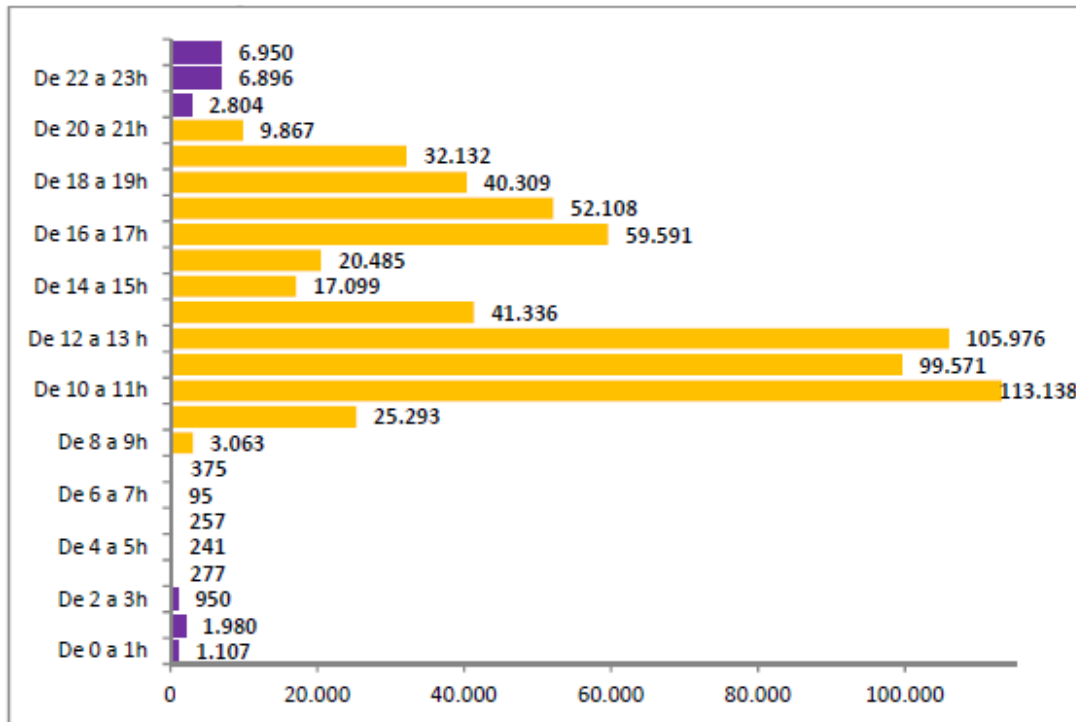


Figure 16.4. Hourly distribution of vehicle trips by time slots (Source: PDSMIB-2017).

#### 16.4. Atmospheric emissions derived from transport

At the level of GHG emissions and pollutants, the emissions inventory for Mallorca contains the following data regarding the main pollutants emitted and the types of transport:

Table 16.3. Emissions according to transport mode in Mallorca, 2018 (source: own from the Inventory of pollutant emissions in the atmosphere of the Balearic Islands).

Pollutant	Road	Aerial	Maritime	TOTAL
SOx(t)	10.58	418.95	9,769.56	10,199.09
NOx (t)	5,357.72	10,954.40	33,817.56	50,129.67
NMVOC (t)	633.92	227.59	1,165.31	2,026.82
CH4(t)	84.22	15.62	123.20	223.04
CO(t)	4,332.10	2,054.26	3,163.89	9,550.25
Cr(kg)	210.37	5.98	234.69	451.04
Cu(kg)	4,227.84	3.62	494.05	4,725.51
Nor (kg)	773.14	0.06	10,297.11	11,070.31
Pb (kg)	3,045.29	146.15	71.50	3,262.94
PST (t)	517.20	100.91	2,137.69	2,755.80

<b>CO2 (kt)</b>	<b>1,976.13</b>	<b>1,556.52</b>	<b>1,346.69</b>	<b>4,879.34</b>
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The values attributable to the tourism sector are not available for each mode of transport, but it can be stated that, with regard to maritime and air transport, the majority is due to tourist activity.

In the three types of transport, the main gas emitted is CO<sub>2</sub>, expressed in kilotonnes (kt), with the highest figure in road transport. Regarding air transport, nitrogen oxides (NO<sub>x</sub>) emissions stand out, while in the case of maritime transport, NO<sub>x</sub> and sulfur oxides (SO<sub>x</sub>) emissions are high, from which, a large part are attributable to cruise ships. In fact, despite the low weight of maritime transport in relation to the other two, its contribution to pollution is very high, which indicates that, at the moment, it constitutes an inefficient and highly polluting means of transport.

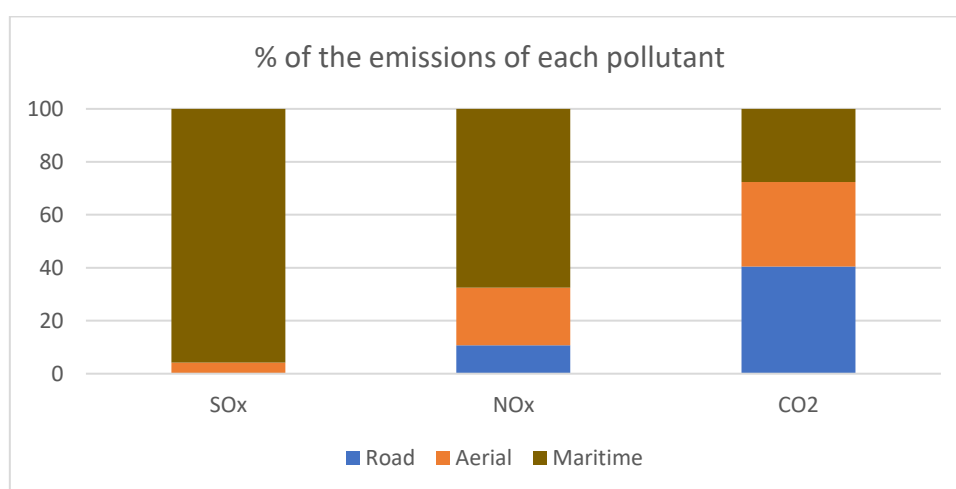


Figure 16.5. Percentage of each pollutant in the set of emissions according to mode of transport (source: own from the Inventory of pollutant emissions in the atmosphere of the Balearic Islands).

## 17. LAND USE CONTROL, SPECIAL PLANNING AND TOURISM DEVELOPMENT

### 17.1. Introduction

The main instrument for planning tourism development is the Plan for Intervention in Tourism Areas of Mallorca (PIAT). The Council of Mallorca in plenary session on July 9, 2020 definitively approved the plan, published in BOIB no. 126 of July 16, 2020.

### 17.2. Land uses

According to the PIAT report, the set of artificial surfaces reaches the figure of 6.7% (urban, industrial, mining uses and artificial green areas). However, as indicated in the plan itself, if those related to infrastructure are added, the figure could reach 8.7%. In the analysis of land uses of the PIAT it is noted, that it will imply a significant change in the existing covers.

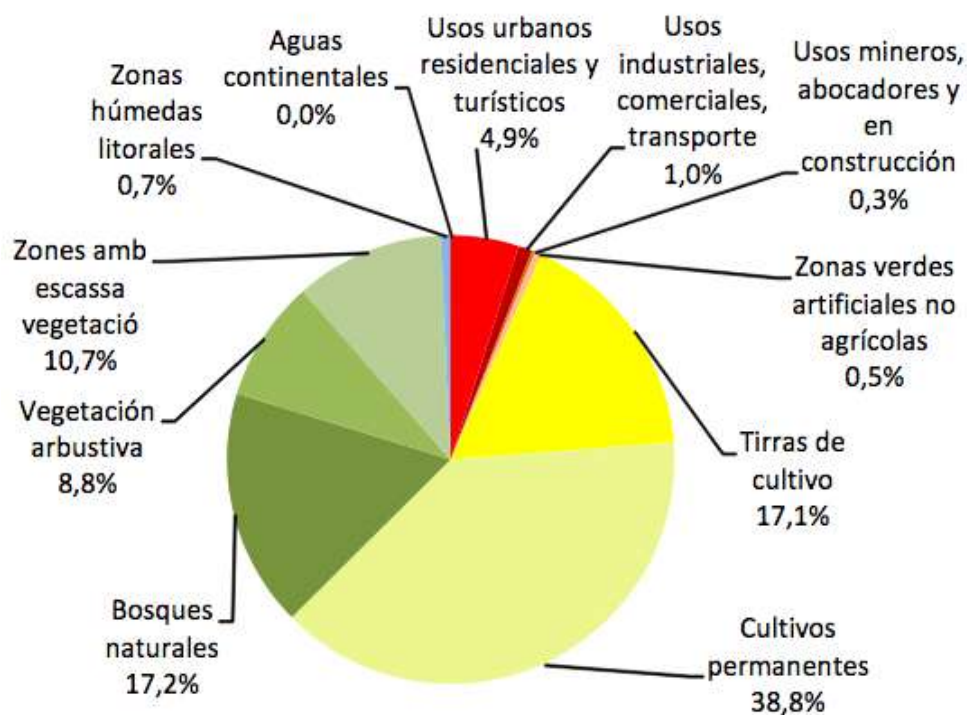


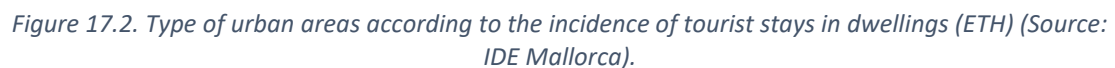
Figure 17.1: Distribution of land uses and covers in Mallorca (Source: PIAT, 2020).

### 17.3. Zoning and controls in force

The Insular Territorial Plan of Mallorca in its 2021 version, proposes in its regulations a limitation on growth in urban and developable land (section 4 of regulation 7):

*The maximum density of the new growth of urban land, developable or suitable for urbanization, including those linked to Territorial Reconversion Areas, intended for residential, tourist or mixed use, will be 60 inhabitants / ha for tourist areas, 120 inhabitants /ha in the non-tourist areas of the municipalities of Palma, Inca and Manacor, and 100 inhabitants /ha in the rest of the island. In all cases, the surfaces intended for general systems will be deducted for the calculation. Likewise, the minimum density of these new growths will be 40 inhabitants / ha.*





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Table 17.1. Limitations of tourist places in Mallorca depending on the territorial area (source: own, based on PIAT, 2020).

Territorial scope	Definition	Allowed density
Tourist Zones (ZT)	Urban development areas and their environment of influence in which tourism use is a priority and is widespread, so that they are closely linked to tourism activity, without prejudice to their compatibility with residential use in the same area.	Varies depending on each area. It varies between 30-120 (places/ha). See Annex III of the Plan regulations.
Residential areas type 1 (ZR1)	Areas intended mainly for primary residence housing of the population. Formed by all residential areas that are not in subcategory ZR2.	6 tourist beds/hectare
Tourist residential areas type 2 (ZR2)	Areas intended mainly for second home housing with the eventual presence of tourism uses. Includes 14 coastal areas.	12 tourist beds/hectare

While the general management plans of each municipality are adapted to the PIAT forecasts, it is proposed to regulate tourist uses based on the densities indicated in the following table:

Figure 17.3. Regulation parameters for the municipalities until the adaptation of the planning in the PIAT (source: PIAT).

Ámbito	Índice de intensidad de alojamiento turístico (IIAT)
<b>Zonas turísticas</b>	
Suelo de uso turístico predominante	Equivalente al índice de intensidad de uso turístico o al ratio que figura en el artículo 27 o en el anexo III de la Normativa de este Plan, según el caso
Suelo de uso residencial	1 plaza / 25 m <sup>2</sup> de superficie construida
<b>Palma capital</b>	
Zonas extensivas	1 plaza / 25 m <sup>2</sup> de superficie construida
Resto de zonas	1 plaza / 40 m <sup>2</sup> de superficie construida
<b>Zonas residenciales</b>	
Zonas extensivas	1 plaza / 25 m <sup>2</sup> de superficie construida
Zonas intensivas	1 plaza / 30 m <sup>2</sup> de superficie construida
Núcleo antiguo	1 plaza / 35 m <sup>2</sup> de superficie construida
<b>Suelo rústico</b>	
Suelo rústico común	1 plaza / 25 m <sup>2</sup> de superficie construida
Suelo rústico protegido	1 plaza / 40 m <sup>2</sup> de superficie construida

The PIAT also establishes limitations in terms of parking spaces for tourist areas and isolated beaches.



Table 17.2. Parking limitations in tourist areas and isolated beaches in Mallorca (source: own, based on PIAT, 2020).

Intervention scope	Use	Ratio applied	PIAT Annex
Parking in Tourist Areas and Tourist Areas - Residential	Tourist	1 app./ 8 accommodation places 1 app. place/ 4 accommodation places	Annex III
	Residential	Majority: 1 place/ dwelling. 4 exceptions: 4.5.2, 5.1, 5.2 and ZR.2.10: 2 beds/dwelling	Annex III
Parking on secluded beaches	Users	15 m2/user	Annex VI: applicable to 16 beaches in Alcudia, Andratx, Artà, Calvià, Felanitx and Manacor
	Parking	1 parking space / 4 users	

Source: own, based on PIAT.

Additionally, the municipalities and the Council of Mallorca itself, can implement criteria for limiting access to areas that they consider to present a risk of overcrowding. Two examples of these limitations at the municipal level are:

- Department of Mobility and Infrastructures of the Council of Mallorca. Control of vehicle access to the Formentor peninsula: between June 15 and September 15, from 10:00 a.m. to 7:00 p.m., it can only be accessed by public transport, on foot or by bicycle.
- Campos Municipality. Parking away from the coast for users of the ses Covetes beaches; ses Covetes and the car park are connected by a shuttle bus.

#### 17.4. Erosion and soil loss

According to the report on the situation of the State of the environment (2016-2017) in the Balearic Islands, 94.9% of the surface is erodible (the remaining surface is artificial covers and water surfaces). The percentage that presents serious or very serious erosion is 3.87%, about 19,200 ha. The report indicates an upward trend in erosion comparing data from 2003 and 2016.

No data is available on how tourist activity affects these erosion processes. However, the Territorial Insular Plan of Mallorca has mapped the erosion risk prevention areas. As the following figure shows, they are concentrated on the west and northwest side (Serra de Tramuntana) and the northeast.

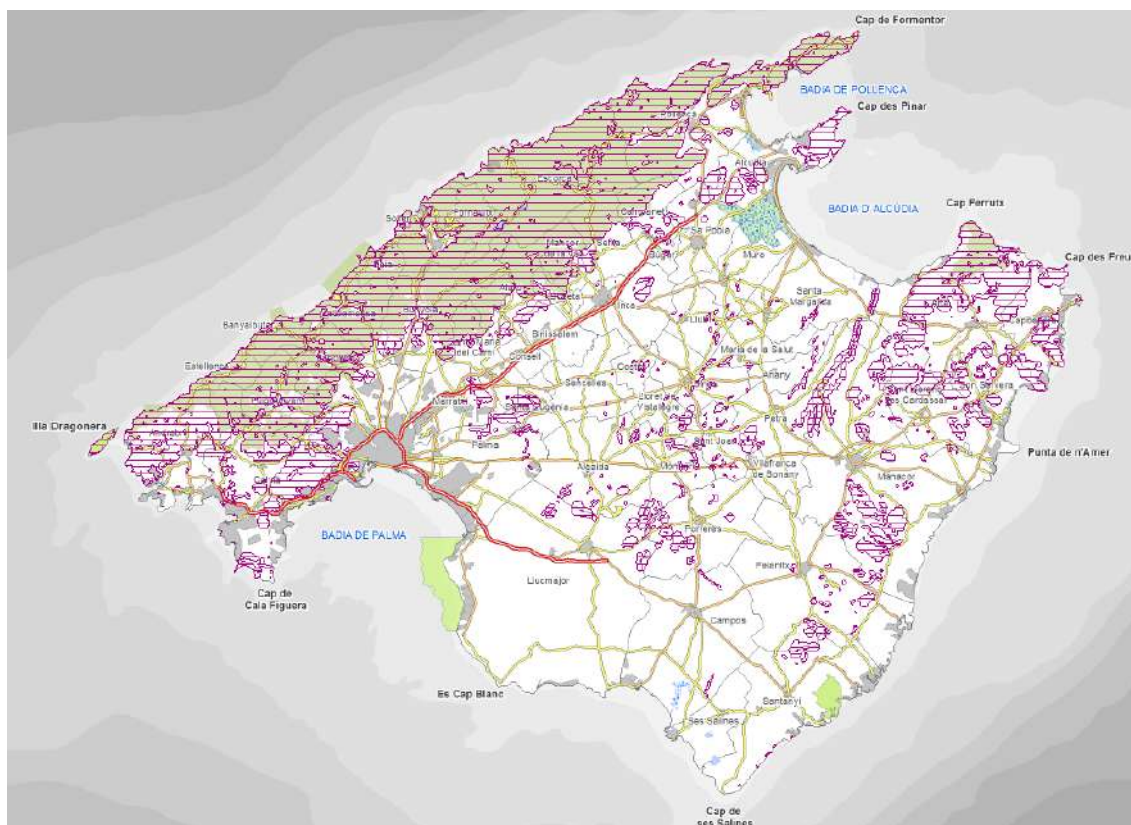


Figure 17.4. Erosion risk prevention areas determined by the PTI (Source: IDE Mallorca).

## 18. SATISFACTION AND BEHAVIOR OF VISITORS

### 18.1. Introduction. Visitor satisfaction

To analyze the level of satisfaction of visitors and tourists in relation to their visit to Mallorca, we draw on the information available in the Tourist Barometer Illes Balears 2016 – Island of Mallorca – which includes the results of 1,692 surveys. The result of the global satisfaction index has been used, which is measured on a scale of 0 to 100 based on 5 main components:

- "Basic" component.
- "Sun and Charming Beach" component.
- "Culture-Nature-Nightlife" component.
- "Socialization" component.
- "Special needs" component.

For visitors of Mallorca, this index obtains a value of **84.4** % and 11.3% of tourists intend to return in the next 2-3 years. In this sense, it is essential to know the rate of repeating visitors since it can be considered a fairly accurate indicator of visitor satisfaction with the destination. In this sense, the following figure shows that, out of the total number of visitors in that year, 79.9% of the visitors had already been to Mallorca.

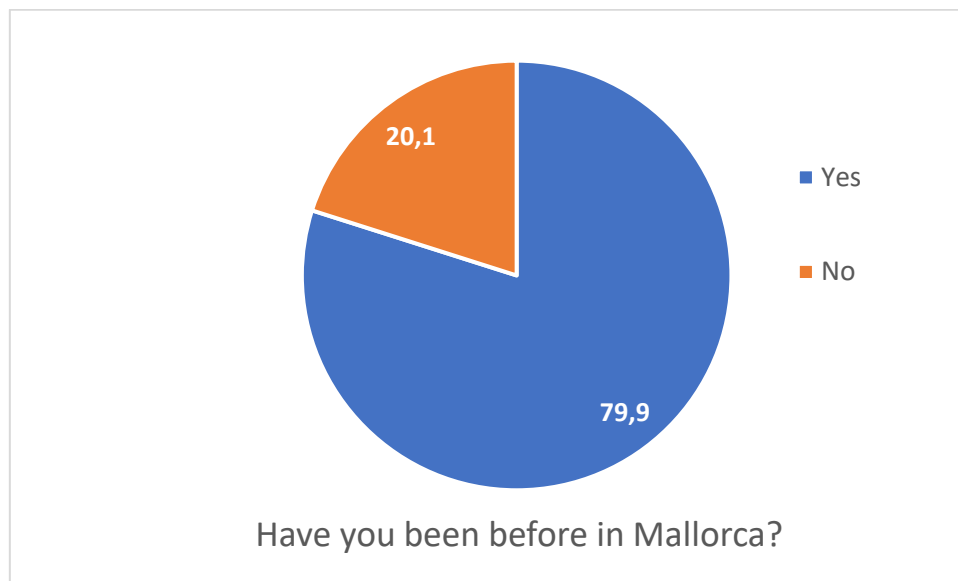


Figure 18.1. Percentage of tourists who had or had not been to Mallorca before (source: own based on the Balearic Islands Tourist Barometer 2016).

The number of times tourists have visited Mallorca in the last 5 years can also be used as an indicator. The following figure shows that 70.3% of the visitors surveyed had already been to Mallorca on other occasions in the last 5 years (sum of 2 or 3 plus 4 or +).

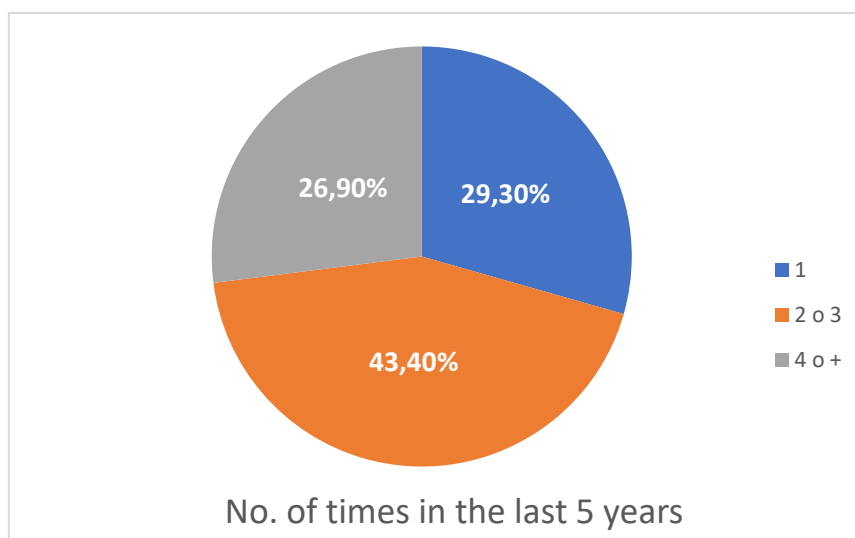


Figure 18.2. Number of times that tourists have visited Mallorca in the last 5 years (source: own based on the Balearic Islands Tourism Barometer 2016).

Regarding the number of complaints filed by tourists, no specific information was found on the number of complaints, but instead, information was obtained on the main complaints collected by tourists. The following figure shows the percentage of tourists surveyed who were annoyed by different situations proposed in the survey. Of the total number of situations, the ones that generated the greatest dissatisfaction were the price levels outside the hotel, with 61.6% of those surveyed and the excess of people and traffic, with 56.6%.

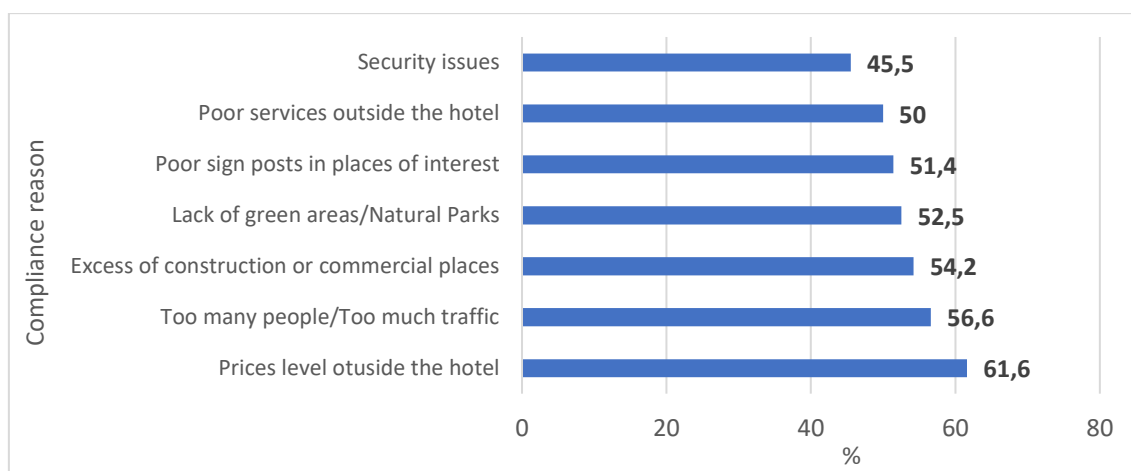


Figure 18.3. Percentage of users who have been dissatisfied with the different situations exposed (source: own based on the Balearic Islands Tourism Barometer 2016).

## 18.2. Health, safety and security of visitors

With regard to the health and safety of visitors, one aspect to study is the deaths of tourists in Mallorca. With the data available in IBESTAT, an approximation has been made of the tourists who died on the island, considering those who died in Mallorca who reside in other autonomous communities and abroad as tourists.

According to the following table and figure, in the period 2015-2020, deaths in Mallorca residing in other autonomous communities varied between 48 and 71 deaths/year and 41 and 237 deaths/year by residents abroad. In general, of the total of deceased with residence outside the Balearic Islands, the majority are residents abroad, which is logical since there are

many more foreign tourists than from other autonomous communities. Yet, 2020 differed insofar as the arrival of people living abroad was greatly reduced due to the pandemic and the harsh restrictions on the entry of visitors to the Balearic Islands.

Table 18.1. Compilation of deaths in Mallorca residing in other autonomous communities and abroad for the period 2015-2020 (source IBESTAT).

Home	2015	2016	2017	2018	2019	2020
Other Autonomous Communities	48	54	71	47	70	65
Foreign	209	237	215	232	193	41
Total	257	291	286	279	263	106

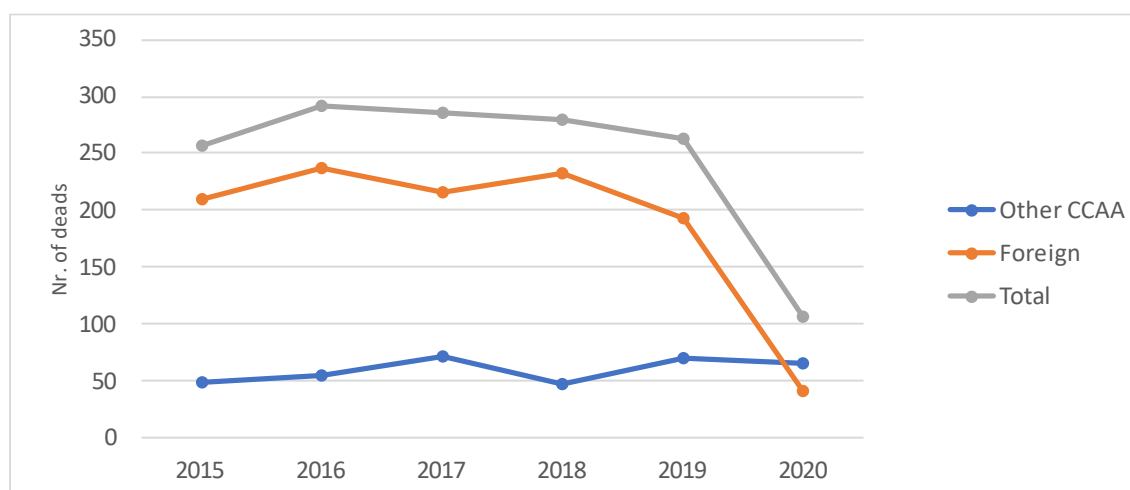


Figure 18.4. Number of deaths resident outside of Mallorca for the period 2015-2020 (source: own based on IBESTAT).

It is also interesting to observe the statistics regarding hospital discharges. The IBESTAT contains data on discharges and hospital stays in the Balearic Islands (in general for the entire autonomous community) of non-residents in the Balearic Islands, which are shown in the following figure.

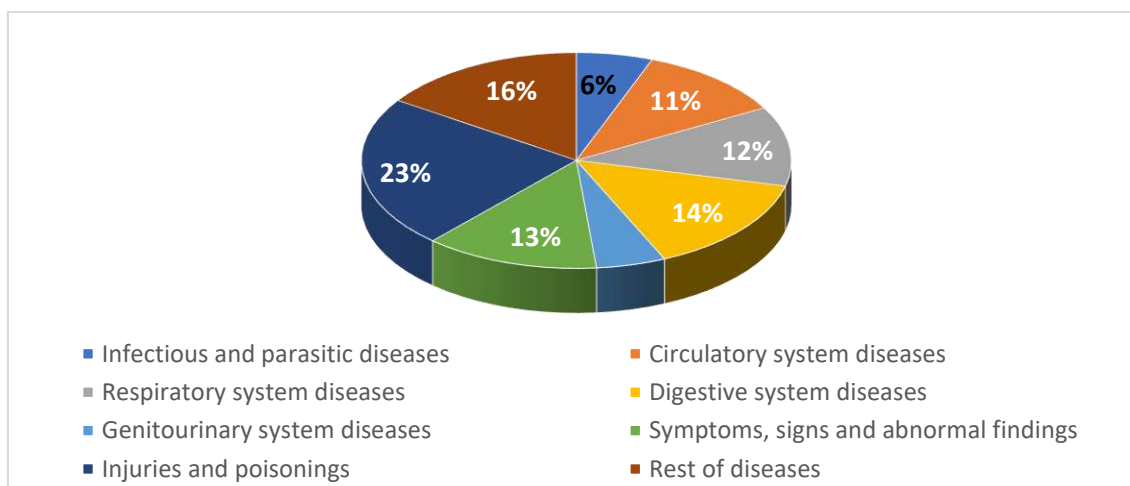


Figure 18.5: Proportion of the main reasons why tourists have visited hospitals over the total discharges and stays of people residing outside of Spain in hospitals in the Balearic Islands (source: own based on IBESTAT).

Of the 6,946 discharges and stays in hospitals by tourists, 23% are due to injuries and poisoning, 14% diseases of the digestive system, 13% due to non-specific abnormal symptoms and signs (sore throat, abdominal pain...) and 12% for diseases of the respiratory system, among others.

### 18.3. Quality of experience and services

In the Tourist Barometer Illes Balears 2016 – Island of Mallorca – one of the specific questions, of fundamental interest, is the examination of the reasons why Mallorca is visited and the assessment of its attributes. This is shown in the following table, with the rating of the reasons on a scale of 5, and the rating of the attributes of Mallorca, on a scale of 10.

*Table 18.2. Assessment of the reasons and attributes of tourists for visiting Mallorca (source: own based on the Balearic Islands Tourist Barometer 2016 – Mallorca Island).*

Reason for visit	Assessment (0-5)	Attributes	Assessment (0-10)
Beaches	4.4	Weather	8.2
Weather	4.4	Beaches	8.2
Scenery	4.3	Scenery	8.1
Tranquillity	4.1	Tranquillity	7.9
Local cuisine	4.1	Local cuisine	7.9
Interesting towns/cities	4.0	Interesting towns/cities	7.8
Local lifestyle	4.0	Local lifestyle	7.8
Accommodation	3.9	Ease of access to the destination	7.7
Ease of contracting the destination	3.9	Quality / Clarity to obtain information...	7.6
Ease of access to the destination	3.9	Ease of contracting the destination	7.6
Cultural activities, museums, festivals...	3.8	Holidays that fit my budget	7.5
Travel that fit the budget	3.8	Security	7.5
Security	3.7	Cleaning / cleaning	7.4
Quality/Clarity to obtain information...	3.7	Accommodation	7.4
Night atmosphere	3.7	Activities and sports in nature	7.3
Housekeeping/cleaning	3.6	Presence of compatriots in the destination	7.3
Activities and sports in nature	3.6	Cultural activities, museums, festivals...	7.3
Presence of compatriots in the destination	3.5	Night atmosphere	7.2
Go shopping / Commercial offer	3.4	Existence of facilities for children	7.1
Presence of friends/relatives at the destination	3.4	Existence of facilities for the elderly	7.1
I already know the destination	3.3	Go shopping/ Commercial offer	7.0
Facilities for the elderly	3.2	Accessibility (disabilities)	6.8
Facilities for children	3.1	Presence of friends/relatives at	6.3

			the destination	
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As can be seen in the table above, the main reasons for visiting Mallorca are the beaches, the climate, the landscapes and the tranquility. On the other hand, the best valued attributes of Mallorca are in this order: the climate, the beaches, the landscapes and the tranquility. It is noteworthy that the 7 reasons to visit Mallorca best valued by tourists, coincide with the 7 best valued attributes (climate, beaches, landscapes, tranquility, gastronomy, interesting cities / cities and lifestyle), which is also useful as an indicator of visitor satisfaction, since we can consider that the reasons or expectations for visiting Mallorca coincide with the final perception of the trip. On the contrary, the least valued attributes are the purchase/ commercial offer (7.0), accessibility (6.8) and the presence of friends / family in the destination (6.3).

## 19. HEALTH SECURITY

### 19.1. Introduction

Health security is considered to be the set of actions and/or measures applied by a health authority to prevent, mitigate, control or eliminate an event that causes risks that affect the health of the population.

Currently, the great challenge in health security worldwide is the COVID-19 pandemic, a virus that was first reported in Wuhan (China) on December 31, 2019 and that, through different mutations, remains active worldwide.

### 19.2. COVID-10 management

To deal with the COVID-19 virus, government institutions have taken a series of measures and protocols. In the case of the Balearic Islands, the GOIB Epidemiology Service has drawn up a Strategy for early detection, surveillance and control of COVID-19, outbreak notification protocols, case notification protocols and weekly summaries with updated data from COVID-19 in the Balearic Islands, among others.

On the other hand, IBISALUT has different means and applications to answer questions and shares information with patients and the general population:

- Telephone for any questions about COVID-19: Infocovid 900 100 971
- Telephone for any questions about COVID-19 in the population aged 0-18: Pediatric Infocovid 900 700 222
- [Information and request for the digital COVID Certificate of the European Union \(CCD-EU\)](#)
- [Request for a diagnostic test \(BITCITA AUTORASTREO\)](#)
- [Health advice according to exposure in COVID-19](#)
- [Rapid self-diagnosis test for SARS-CoV-2](#)
- [Vaccination against COVID -19](#)
- [Mobile application App Radar COVID](#)
- [Security measures in health centers](#)
- [Correct use of the mask](#)
- [Chronic patients and older people towards COVID-19](#)
- [Rehabilitation exercises aimed at patients with COVID-19](#)
- [Information on emotional management](#) and [tips for sleeping well](#)
- [FAQS](#)
- [Infographics and thematic digital brochures on COVID-19](#)

Regarding the data collected, the IBISALUT has a daily data [viewer](#) for each island, municipality and Basic Health Zone (ZBS) where data is reported such as: confirmed cases, 7-day incidence, 14-day incidence (also by age groups), cases by sex, deaths per month/year, deaths in residence and doses of the vaccine administered (differentiating between the first and second doses), among others.



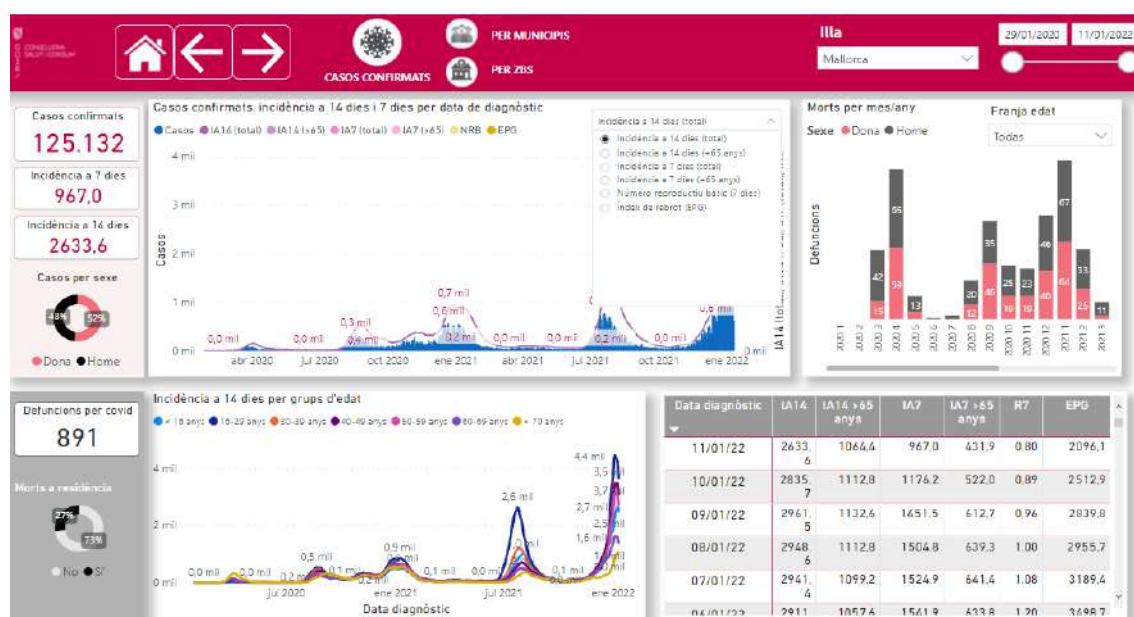


Figure 19.1. COVID data viewer in the Balearic Islands (Source: IBSALUT).

Table 19.1. Covid-19 monitoring indicators in Mallorca as of January 12, 2022 (source: IBSALUD).

Indicators	Results
No. of confirmed cases per day on the island of Mallorca	125,132
No. cumulative deaths	891 (27% in residences)
New cases per 100k in the last 7 days	967 (as of January 11, 2022)
Infection rate in the last 7 days	37.45%
ICU heads used in Mallorca	62 (as of January 5, 2022)

### Health infrastructure in the Balearic Islands

Given the influx of tourists from all over the world in the Balearic Islands, this tourist destination has been provided with a more sophisticated and secure sequencing procedure compared to that of other territories. The Microbiology service of the Son Espases reference hospital, specifically, the Microbial Genomics Unit, was provided with material to carry out these investigations. This laboratory carries out important work in identifying, detecting and isolating new variants and strains of Sars-CoV-2 (COVID-19), being one of the few in Spain that has ThermoFisher technology, which detects variants and stems of Sars -CoV-2 different from the usual ones. Thus, the Balearic Islands have been one of the first Spanish territories where the presence of variants of Sars-CoV-2 has been detected early: the Brazilian (P1), the South African, Nigerian (B.1.525) and the New York (B.1.526).

### 19.3. Covid-19 management in relation to tourism

Regarding the attention of the tourist or visitor, it is worth mentioning that the [Strategic Tourism Agency of the Balearic Islands \(AETIB\)](#) has established protocols and recommendations for safe tourism in the islands:

#### A. [Branch circuit in a bridge hotel](#)

In order to offer adequate health care in the Balearic Islands, guarantee the protection of public health and prevent the spread of COVID-19, the so-called "bridge hotels" have been set up on each island. Bridge hotels are hotel establishments that have been adapted to isolate suspected or confirmed cases of COVID-19, with mild or asymptomatic symptoms, and for the

quarantine of their contacts, and that do not have a home with the appropriate conditions. The "bridge hotels" have an established protocol to attend to these people.

## **B. COVID Insurance**<sup>33</sup>

The GOIB, through AETIB, has made available to tourists an insurance policy for medical assistance during the trip (free measure for tourists).

The policy makes available to the insured: interpreter service; expenses derived from transportation to the insured's place of residence after COVID-19; expenses derived from repatriation due to death in the place of origin of the insured after COVID-19; expenses derived from the extension of the insured's stay due to isolation or quarantine caused by COVID-19. In turn, the tourist has a free assistance service in different languages (Catalan, Spanish, English, German, French, Italian and Portuguese).

## **C. Security at destination**

### Work environment and services

The priority during the process of reactivating tourist activity is the protection of the health of citizens and, in particular, of the workers who will cover the services offered to tourists. With the aim of preventing the spread of Covid-19 as much as possible, various Action Protocol Guides have been prepared and updated that encompass all sectors of the tourism value chain: tourist accommodation, restaurants, commerce, discretionary transport and vacation rentals. However, the monitoring of compliance with the sanitary measures will be accompanied by the inspection, support, information and advice systems of the GOIB in the activities that make up the tourism sector, defining new strategies based on experience, training on new risks and homogeneity of criteria.

### Safe work environments

In order to have safe tourist services, in addition to complying with prevention measures, the Tourist Reopening Work Commission of the Balearic Islands has agreed to allow diagnostic tests for acute infection to be carried out on working people, complying with the requirements and terms determined by the health authority.

## **D. Network of COVID-express points for residents and authorized COVID Test centers for Tourists**

The Health Service has a network of COVID-EXPRES points where residents can undergo the antigen test upon arrival without having to book an appointment. The following can be found in Mallorca:

COVID EXPRES SON DURETA. C. Andrea Doria, 55 · Palma	From Monday to Sunday from 8:00 a.m. to 7:30 p.m.
COVID EXPRES INCA. Museu del Calçat, Av. G. Luque · Inca	From Monday to Sunday from 8:00 a.m. to 7:30 p.m.
COVID EXPRES MANACOR. Via Palma, 140 · Manacor	From Monday to Sunday from 8:00 a.m. to 7:30 p.m.

<sup>33</sup> Measure in force between August 13 and December 31, 2021

For tourists, a [list of authorized PCR and antigen test centers is available in](#) case the visitor needs to perform a PCR or antigen test to return to the country or region of origin.

#### **19.4. Health resources in the Balearic Islands**

The Balearic Islands have 7 self-managed public hospitals and 2 hospitals integrated into the public network through a unique agreement (Hospital Sant Joan de Déu and Hospital Cruz Roja, both in Palma) and 13 private hospitals. In total, the public hospitals in the Balearic Islands have 2,042 beds available, 66 operating rooms, 31 resuscitation boxes, 32 examination boxes and 110 emergency boxes.

These centers offer comprehensive health care to patients with an urgent or specialized care need through the more than 18,000 health and non-health professionals who are part of the public hospital network. The hospitals of the Balearic Islands have 2,300 specialist doctors, 4,100 nurses and 3,000 nursing assistants.

These resources provide daily service to more than 1,300 emergencies on the 4 islands and an average of more than 1,300 operations per week. Hospitals have an occupancy rate of 80%, with an average stay of 6.5 days and a mortality rate of 3.47%.

On a territorial scale, the Health Service has a wide network of health centers and basic health units that make up Primary Care that offer medical care by specialists in family medicine, pediatric consultation and nursing consultation, home care, chronic patients, or health promotion among others.

The Balearic Islands have 58 health centers distributed throughout the territory of the 4 islands, of which 34 have a 24-hour emergency service and 104 basic health units (care points smaller than health centers). Close to 3,500 health and non-health professionals work in them, including 375 specialist doctors and more than 1,100 nurses.

Privately owned healthcare, for its part, attends to 40% of healthcare activity on the Islands. It is dedicated to the health care of residents and tourists. It has 13 hospitals with 1,386 beds and more than 5,000 health professionals. This private health system has 37.0 high-tech equipment for every million inhabitants, compared to the Spanish average of 29.8. The waiting time in the emergency room is less than 30 min.

#### **19.5. Quality of care**

Given that the quality perceived by users is a determining element in the outcome of health care, the Ministry of Health, Family and Social Welfare and the Health Service have established a common information collection system for the entire public health network of Balearic Islands.

The results of a patient [satisfaction study](#) have been partially published, as shown below (information provided at admission, willingness of staff to listen, information provided by staff)<sup>34</sup>:

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<sup>34</sup> Hospitals in Mallorca are highlighted in red boxes.



Figure 19.2: patients assessment (Source: Ministry of Health, Family and Social Welfare). Note: care centers in green, have obtained a score above the average; in yellow within the mean; in red, 5% lower than the average.

Regarding care quality and specifically, the perception of users, it is necessary to refer to a [satisfaction survey](#) carried out by the Health Service from June 2013 to May 2014, to users of the seven public hospitals of the Islands. Balearic Islands: the four from Mallorca (Son Espases University Hospital, Son Llàtzer Hospital, Inca County Hospital, Manacor Hospital) and from the rest of the islands (General Mateu Orfila Hospital in Menorca, Can Misses Hospital in Ibiza, and Formentera Hospital) already another two in Mallorca integrated into the public hospital network (Hospital de Cruz Roja and Hospital Sant Joan de Déu). A total of 3,964 surveys were

conducted by email or telephone among patients who had visited a specialist or had been discharged after a hospital stay.

The results of the survey, on a scale of 0 to 5, concluded with a very high degree of general user satisfaction. With an average of 4.4., Hospital de Formentera (4.8), Hospital de Cruz Roja (4.5) and Hospital Sant Joan de Déu (4.5), headed the satisfaction list.

The care received from the different professionals who work in the field of health was one of the aspects best valued by patients, specifically: the nursing staff (4.8), physiotherapy (4.8) and medicine (4.7). By center, the highest rating given to the nursing and physiotherapy staff of the Red Cross Hospital (4.9) and the medical staff of the Can Misses Hospital (4.8) and the Manacor Hospital (4.8) stand out.

Regarding the assessment of the information received, the users gave a score of 4.3 to that related to diagnostic tests and medication intake. It should be said that the assessment regarding the Formentera Hospital was 4.9. The evaluation of other types of information, such as behavior or exercise habits, was scored with 4.2 and 4.1, respectively.

In relation to the consultations, the most valued by the patients was the care received, with an average score of 4.4. The most valued centers were the Formentera Hospital (4.8), the Manacor Hospital (4.5) and the Can Misses Hospital (4.5). And as for the waiting time in the query, users scored it with a 4.0.

Regarding the assessment of the operating rooms, the individuals surveyed gave a score of 4.4 to the information received by the patient's relatives and 4.6 to the reception until reaching the operating room. In addition, 74.3% claimed that they received a report with all the information about hospital discharge when they left the center. This percentage rose to 85.7% in the Formentera Hospital and 84.8% in the Son Llàtzer Hospital.

The evaluation of the hospital stay was 4.1. Specifically, sign posts (4.4), room comfort (4.2), cleanliness (4.2), intimacy (4.1) and activity times (3.7) were scored. Regarding the food in the centers, the quantity and quality were valued with a score of 3.8 and 3.3, respectively.

## 20. SPORTS TOURISM AND ACTIVE TOURISM

### 20.1. Introduction

The World Tourism Organization (UNWTO) has made it a priority to develop and strengthen the line of action for Tourism and Sport, recognizing the virtuous link, of reciprocal empowerment, that unites tourism and sport, as two friendly faces around positive values of global activities.

In this sense, there are indicators such as employment linked to sport, the percentage of trips initiated for sporting reasons, the total expenditure associated with these trips and public spending linked to sport, which have been registering notable growth in recent years. Likewise, the visibility associated with destinations and investment in infrastructure and its positive multiplier effects at an economic and social level, should be noted.

### 20.2. Resources, activities and infrastructures for sports tourism and active tourism

Mallorca has become a reference destination for lovers of sports tourism. The adequate infrastructures and the mild climate throughout the year make it possible to practice a wide range of sports such as sailing, golf, hiking and cycling, among others.

The possibilities offered by the island for professional and amateur sports have facilitated the hosting of large national and international events (marathons, triathlons, competitions of different modalities...) that are promoted on different channels such as *Sports Events Calendar*.

Table 20.1. Places and activities of sports tourism and active tourism in Mallorca.

Active tourism concept	Number
Kilometers of coastline	550
Beaches	272
Marinas and yacht clubs (total)	42
Nautical schools	10
Nautical stations	2
Leisure port, sports port	7
Golf courses	21
Cycle tourism (km road network)	1400
Cycle tourism (km marked routes)	1732
Hiking (routes and cataloged trails)	265
Active tourism establishments and activities	110
Active tourism companies	90

Source: PIAT, GOIB, AETIB and Council of Mallorca.

The Council of Mallorca promotes this type of tourism with different initiatives. Thus, the Council of Mallorca has started promoting Mallorca as a destination and brand for sports tourism and for this purpose, in 2021, it has allocated 400,000 euros in a promotional campaign.

#### A. Beaches

The Majorcan coastline is one of the best known and valued in the Mediterranean and has some 550 kilometers of coastline. Regarding the number of beaches, the data varies depending on the sources. According to the PIAT, we found 272 beaches, according to the General Directorate of Emergencies of the GOIB, 222 beaches, and according to the website *disfrutalaplaya.com*, 326 beaches. Probably because some that are continuous are counted together or because in some cases very small coves have not been taken into account.

## B. Ports and yacht clubs

Nautical activities offer an alternative and different perspective of the island's landscapes with ports and yacht clubs scattered along the coast that allow individuals to go around the island. Mallorca is one of the places with the greatest offer and prestige in nautical terms with 29 marinas and yacht clubs. To this is added the potential practice of other water sports such as sailing, kitesurfing, kayaking and diving.



Figure 20.1. Golf courses in Mallorca (source: [www.acnauticosbalears.com](http://www.acnauticosbalears.com)).

## c Golf

Mallorca has established itself as a top-level golf tourist destination with an offer of more than twenty facilities. Most courses are concentrated in the Calvià-Andratx area, with a combination of well-equipped centers such as Santa Ponça Golf, Bendinat and Golf de Andratx. The oldest course in Mallorca is Son Vida Golf, in Palma, opened in the sixties. Golf Son Servera was also opened in the sixties a course that stands out given the promotion of native plant species.

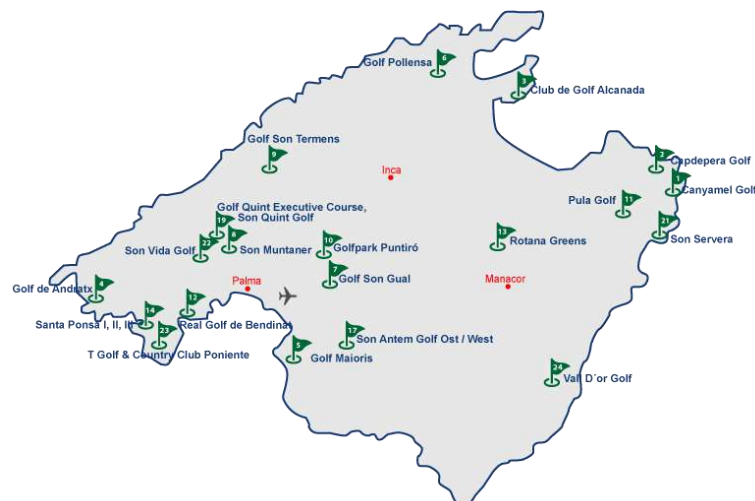




Figure 20.2. Golf courses in Mallorca (source: [www.golf-mallorca.com](http://www.golf-mallorca.com)).

#### **D. Cycle tourism**

Mallorca has become a coveted area for cycling due to its varied orography, mild Mediterranean climate and growing infrastructure. Currently, it has a network of roads of about 1,400 kilometers, with a part of them signposted for the practice of cycle tourism. As an instrument to improve the cycling experience, the Cycle Routes Plan has been drawn up, which classifies roads and paths into non-recommended routes, suitable routes and preferential routes, according to the degree of safety and traffic. The map contains sixteen routes with specific signs and a total length of 1,732 km that connect the main cities and interest centers of Mallorca (villages, lighthouses, hermitages and the Serra de Tramuntana mountainous area).

#### **E. Hiking and backpacking**

Mallorca offers a wide range of hiking routes that highlight its traditional life, nature and ethnological heritage. By far, the area with the greatest hiking potential is the Serra de Tramuntana. On the other hand, almost all the protected natural spaces, such as the Llevant park, have marked itineraries. Also noteworthy are many old pilgrimage routes that lead to monasteries and hermitages, itineraries to beaches without road access (Artà or Manacor area). Also, in Alcúdia, there is the first Nordic walking park in Spain.

#### **F. Active tourism**

From the perspective of active tourism, Mallorca presents optimal conditions due to its mild climate, mild temperatures, and the existence of mountain and sea landscapes. The AETIB indicates up to 110 active tourism activities and establishments in Mallorca and the GOIB lists 90 companies that are dedicated to it. Various activities are included such as: canyoning, caving, climbing, water activities, adventure, diving, horseback riding, 4x4, hot-air balloon flights, hiking, etc.

### **20.3. Sports events**

In recent years, Mallorca has been consolidating itself as the venue for holding sporting events with an international impact. The following stand out: *Road to Mallorca* and *Mallorca Golf Open*, in golf; the *Mallorca Challenge* or the *UCI Track Championships*, in cycling; the *ATP Mallorca Championship* in tennis.

To reinforce this aspect of the tourist product, Turisme de Mallorca has published a calendar of sporting events that includes the main competitions that the island hosts, both amateur and professional.

The AETIB highlights more than a dozen relevant sporting events in Mallorca throughout the year (regattas, cycling, marathon...). All in all, according to [EliteChip](#), a company specialized in organizing sporting events in Mallorca, more than 200 are organized annually. The type of events is diverse and includes activities such as: running, trailrunning, mountain races, duathlons, triathlons, mountain biking, cycle tourism and crossings. EliteChip has a database with more than 65,000 contacts and coordinates a dozen leagues and cups including mountain races, Nordic walking, etc.



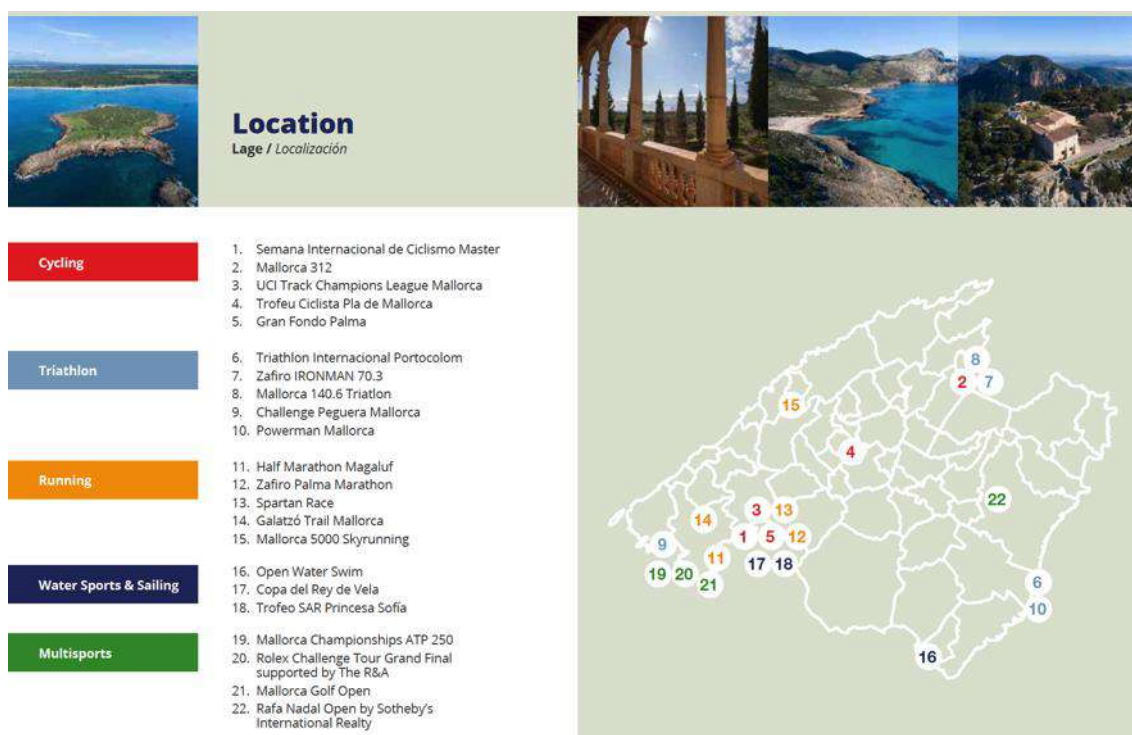


Figure 20.3. Sports Events Calendar 2021-2022 (source: Council of Mallorca).

**APPENDIX. USED INDICATORS AND SOURCES. SUMMARY TABLE.**

Vector	Indicator	Source
1. WASTE MANAGEMENT	Solid urban waste (RSU) by fractions and years collected in Mallorca	Council of Mallorca
	Monthly variation of non-selective and selective collection	Rezero
	Waste production in Mallorca by productive sectors	Cerda et al. 2019
	Production and recycling of waste in establishments attached to the Network of sustainable hotels in the Balearic Islands	Network of sustainable hotels in the Balearic Islands
	Garbage accumulation rate per month and presence of tourists on two beaches in Mallorca	Council of Mallorca/ Blueislands
	Quantity of materials reused and/or prepared for reuse in the Balearic Islands	Rezero
	Share of reusable bottles (water, soft drinks and beers) with respect to the total number of containers marketed in the Balearic Islands	Rezero
	Investments in promotion of waste prevention, reduction and management policies	Rezero
2. WATER ADMINISTRATION, BUSINESS STRUCTURE	Water use (total consumption and liters per tourist per day)	We are water foundation, Deya Tortellà and Tirado Bennassar, 2011, Survey of water and energy consumption in establishments in the Balearic Islands 2017
	Water consumption per tourist night compared to the general water consumption of the resident population per night	PIAT, Deya Tortellà and Tirado Bennassar, 2011
	Total volume consumed and liters per tourist per day	PIAT, Deya Tortellà and Tirado Bennassar, 2011
	Percentage of tourism companies that take measures to reduce water consumption	FEHM
	Percentage of tourist companies with recycled water	Survey of water and energy consumption in establishments in the Balearic Islands 2017
	Percentage of water saved	IBESTAT
	Water shortage time	Drought index – Water website GOIB
	Price of water per liter or cubic meter	EMAYA
3. WASTEWATER MANAGEMENT	Percentage of destination wastewater treated with at least secondary treatment before discharge	IBESTAT, Annual report on sanitation and purification 2020 (Balearic Agency for Water and Environmental Quality)
	Number of pollution events or reported annually due to water discharge	Annual activity report 2020, 112
	Regulation for its headquarters, maintenance and testing of septic tanks and wastewater treatment systems, and evidence of its application	Water website GOIB, PHIB (Hydrological Plan of the Balearic Islands)
	Regulations to ensure the size and type of wastewater treatment is appropriate for its location and evidence of its application	PHIB
	Program to help tourism businesses safely treat	PHIB

Vector	Indicator	Source
	wastewater with minimal adverse effects on local people and the environment	
4. ECONOMIC BENEFITS OF THE DESTINATION	Number of tourism businesses in the community and % locally owned	IBESTAT * partial
	Number of tourist nights per month (distinguishing national and foreign tourists classified by the main countries of residence)	IBESTAT
	Relative contribution of tourism to the destination economy (% GDP)	IMPACT (Exceltur)
	Average daily spending by tourists	IBESTAT
	Average length of stay of tourists (nights)	IBESTAT
	Employment rate in accommodation establishments	IBESTAT
	Birth rate of companies/establishments in the tourism sector	IBESTAT
	Annual benefits of tourism companies	IBESTAT
	Tourism business income	IBESTAT * partial
	Ratio of income attributable to tourism compared to other income-generating activities	IBESTAT * partial
	Efficiency/price ratios (including gross margin) for tourism businesses compared to industry norms or ratios for similar products in other destinations	IBESTAT * partial
5. TOURIST SEASONALITY	Degree of seasonality	Coll Ramis, 2016
	Tourist arrivals per month or quarter (distribution throughout the year)	IBESTAT
	Percentage of annual tourist arrivals that occur in the peak month, in the peak quarter	IBESTAT
	Accommodation occupancy rates per month or quarter (distribution throughout the year)	IBESTAT
	Special events held during high, medium and low seasons	<a href="http://www.infomallorca.net">www.infomallorca.net</a> ; <a href="http://www.artsmallorca.com">www.artsmallorca.com</a> *partial
	Percentage of accommodation and services related to tourism open all year	IBESTAT
	Percentage of employment related to tourism throughout the year, less than 6 months, etc.	IBESTAT *partial
	Local unemployment rate in low, medium and high season	IBESTAT
6. EMPLOYMENT	Number and percentage of tourism employees by sector (accommodation, catering, other tourism industries) compared to total employment in the destination	IBESTAT
	Percentage of seasonal tourism employees	IBESTAT *partial
	Part-time to full-time tourism employment rate	IBESTAT
	Percentage of full-time and full-year employees	IBESTAT *partial
	Rate of Spanish and foreign workers	IBESTAT * does not appear on the list proposed by them
	Percentage of men and women employed in the tourism sector	IBESTAT
	Average female income/average male income in the	IBESTAT

Vector	Indicator	Source
	tourism sector	
	Percentage of qualified employees	IBESTAT *partial
	Percentage of employed persons by age group	IBESTAT * does not appear on the list proposed by them
7. ENERGY MANAGEMENT, CLIMATE NEUTRALITY	% of tourism companies involved in climate change mitigation systems/programs/energy conservation, CO2 compensation, low energy systems, etc.	Survey of water and energy consumption in tourist establishments in the Balearic Islands in 2017
		Balearic Carbon Footprint Registry (created but pending implementation)
		Sustainable Hotels Network
		The EU Ecolabel Tourist Accommodation Catalog
	Programs and incentives that will help tourism businesses monitor, reduce and publicly report on energy consumption and greenhouse gas emissions (GSTC)	Action Plan of the Tourism Strategy Agency of the Balearic Islands
	Programs and incentives that help tourism companies to monitor, improve and publicly report on energy conservation and energy efficiency (GSTC)	MOVES III Program, PREE 5000 Program, EU Next Generation Funds, PAREER II Program, AE/CNMC/132/21: Aid for the promotion of photovoltaic and micro-wind solar energy installations for the year 2021, EERR and PRTR
	Program and incentives to help tourism businesses reduce dependence on fossil fuels and use renewable energy technologies (GSTC)	MOVES III Program, PREE 5000 Program, EU Next Generation Funds, PAREER II Program, AE/CNMC/132/21: Aid for the promotion of photovoltaic and micro-wind solar energy installations for the year 2021, EERR and PRTR
	Energy consumption per tourist night compared to the general energy consumption of the resident population per night	Survey of water and energy consumption in tourist establishments in the Balearic Islands in 2017
	% of tourism companies that implement measures to reduce/save energy consumption	Sustainable Hotels Network
	Use of renewable energy sources in tourism companies	Survey of water and energy consumption in tourist establishments in the Balearic Islands in 2017
8. CLIMATE CHANGE	Risk of heat waves. Days on which Tmax thresholds	National Plan for Preventive Actions

Vector	Indicator	Source
and DESTINATION CAPACITY	are exceeded	of the Effects of Excessive Temperatures on Health
	Drought risk. Estimation of the average reduction in rainfall and runoff	Evaluation of the impact of climate change on water resources and droughts in Spain (2017)
	Risk of torrential rain and flooding. Increase and value of flood damage	Flood Risk Management Plan 2016-2020. Hydrographic Demarcation of the Balearic Islands
	Hotel establishments that are members of the Network of Sustainable Hotels in the Balearic Islands	Network of Sustainable Hotels in the Balearic Islands
	hotel establishments that provide data to Sustainable Indicators.com	Network of Sustainable Hotels in the Balearic Islands
	Risk prevention areas according to the PTIM	PTIM
	Evolution of GHG in the Balearic Islands	Inventories of pollutant emissions in the atmosphere of the Balearic Islands
	GHG emissions by sector in the Balearic Islands	Inventories of pollutant emissions in the atmosphere of the Balearic Islands
	Total CO2 emissions in Mallorca and by sector according to SNAP	Inventory of pollutant emissions in the atmosphere of the Balearic Islands
	Final consumption of fossil fuels in the services sector in Mallorca	Energy Balance Mallorca 2018 (GOIB)
	Fossil fuel consumption for transport total and per capita	Energy balance of Mallorca 2018 (GOIB) and IBESTAT
	High risk areas of forest fire	PTIM
	Evolution of the number of forest fires in Mallorca	IBESTAT
	Forest area burned by fires in Mallorca	IBESTAT
9. UNIVERSAL ACCESSIBILITY AND INCLUSIVITY	Existence of accessibility policies and programs	Council of Mallorca / Palma City Council / GOIB
	Existence of adequate public transport for mobility problems	Tourist information on accessibility in Mallorca · Towards a Mallorca for all and Regulations of the urban collective transport service of Palma de Mallorca
	Number of tourism companies in the destination that offer trained guides for people with disabilities	Spain is accessible / Mallorca: destination TUR4all / Handitur
	Restaurants, hotels and public buildings with wheelchair accessible restrooms	Spain is accessible / Mallorca: destination TUR4all / Handitur
	Number and percentage of hotels with accessible rooms for people with disabilities	Spain is accessible / Mallorca: destination TUR4all / Handitur
	Distance to hospitals or health centers	IBSALUD
	Satisfaction questionnaire on the departure of tourists with some disability	Results report on "Habits and Attitudes towards Tourism of People with Physical Disabilities"
10. LOCAL SATISFACTION	Satisfaction of residents with tourism in the Balearic Islands	AETIB

Vector	Indicator	Source
	Impact of tourism on the quality of life of residents	AETIB
	Impact of tourism on identity and cultural heritage	AETIB
	Population/resident ratio	IBESTAT
	Spatial density of visitors	IBESTAT
	Average price per square meter on the island of Mallorca by size of municipality	IBESTAT
	Tourist places on the AirBnb platform in Mallorca	Terraferida
	Perception of saturation and overcrowding	Serra Llambias (2017)
11. TOURISM GOVERNANCE, DESTINATION MANAGEMENT	Actions and function of the AETIB	AETIB
	Balance of the Sustainable Tourism Strategy of the Balearic Islands	Terraferida (2019). VV.AA. (2020). Social Observatory of Mallorca
	ITS contribution to sustainable tourism (number of projects and funding)	<a href="http://www.illessostenibles.travel">www.illessostenibles.travel</a>
12. INNOVATION	R&D spending	IBESTAT
	Human resources linked to science and technology	IBESTAT
	Employed in knowledge-intensive technological sectors	IBESTAT
	Employed in tourism technology sectors	TOURISTIC
	patent application	Spanish Patent and Trademark Office (SPTO)
	The availability of the latest technologies	Science, Technology and Innovation Plan for the Balearic Islands 2018-2022
	technology adoption	Science, Technology and Innovation Plan for the Balearic Islands 2018-2022
	Technological absorption by companies	Science, Technology and Innovation Plan for the Balearic Islands 2018-2022
	Technology transfer and foreign direct investment	Science, Technology and Innovation Plan for the Balearic Islands 2018-2022
13. SUSTAINABLE CONSUMPTION AND PRODUCTION	Mallorca Strategic Tourism Plan 2020-2023 (PETM)	Council of Mallorca
	Campaigns to promote the consumption of local products	Council of Mallorca
	Platform to promote the circular economy in hotels: FINHAVA	COUNCIL OF MALLORCA and PIMEM
	Others: regional public channel IB3-Radiotelevisió of the Balearic Islands. Program "Uep com anam" and "IperCentro "	
	Others: Registration of companies and tourist establishments in Mallorca	
	Grants from the Department of Agriculture of the GOIB	GOIB
	Operators with certification of organic agri-food products	CBPAE
	Hectares and % of the useful agricultural area allocated to organic farming	CBPAE and IBESTAT

Vector	Indicator	Source
	Producers and cultus certified by the Consell regulator of the generic denomination of integrated agriculture of the Balearic Islands	CRDGA
	Producers of organic farming in Mallorca	APAEMA
	Tourist destinations accredited with SICTED quality	AETIB
	Tourist establishments accredited with SICTED quality	AETIB
	Tourist establishments accredited with Q-ICTE quality	AETIB
	Tourist establishments certified with SGA EMAS	GOIB
	Surveys to assess the degree of receptivity and awareness of environmental issues	
14. NATURAL HERITAGE AND ENVIRONMENTAL MANAGEMENT	Types of protected areas in Mallorca and surface area	CAIB, <a href="http://www.xarxanatura.es">www.xarxanatura.es</a>
	Species of flora and fauna of Mallorca according to conservation status category and map	Balearic catalog of protected species
	Fauna species of Mallorca with an approved and current conservation plan	Balearic catalog of protected species
	Plant endemisms in the Balearic Islands	<a href="http://biodiversidadvegetal.wordpress.com">biodiversidadvegetal.wordpress.com</a>
	Parameters of the beaches according to the territorial systems of Mallorca	PIAT
	Evolution of custody agreements signed in the Balearic Islands	ICTIB
	Projects financed by the ITS by thematic area and with associated amount	<a href="http://www.illessostenibles.travel">www.illessostenibles.travel</a>
	Ecotourism resources in Mallorca	<a href="http://illesbalears.travel">illesbalears.travel</a>
	Eco -distinctives or eco -stamps in Mallorca according to type and location	Biosphere Responsible Tourism, CAIB, Travellife Sustainability Tourism
	Natural hazards	IBESTAT, Consell de Mallorca, Flood Risk Management Plan 2016-2020. Hydrographic Demarcation of the Balearic Islands
15. CULTURAL HERITAGE AND TRADITIONS	Autonomous legislative base in cultural matters	CAIB
	Distribution by municipalities of the BIC and BC	Ministry of Culture and IDE Mallorca
	Incidence and potential of cultural tourism	Melis Gomila, L. (2021).
	Heritage routes. Proximity archeology of Mallorca	Council of Mallorca
	Existence of a list of examples of cultural heritage of the destination and of the most outstanding attractions	<a href="http://illesbalears.travel">illesbalears.travel</a>
	Festivals of Cultural Interest in Mallorca declared BICIM	CAIB
	Popular fairs in Mallorca	Calendar of fairs and markets in the Balearic Islands drawn up annually by the DG for Trade and Business, <a href="http://firesifestesdemallorca.com">firesifestesdemallorca.com</a>
	Contribution of the ITS to the conservation of historical heritage (number of projects and financing)	<a href="http://www.illessostenibles.travel">www.illessostenibles.travel</a>
16. MOBILITY	Arrivals by plane and boat to Palma	IBESTAT
	Mallorca road network according to road typology	Road Sector Master Plan, 2009

Vector	Indicator	Source
	Distribution of tourist beds in Mallorca	Ruiz - Perez and Seguí-Pons, 2020.
	Modalities of transport for tourists	PDSMIB, 2017
	Hourly distribution of vehicle journeys by time slots	PDSMIB, 2017
	Emissions according to mode of transport in Mallorca	Inventory of pollutant emissions in the atmosphere of the Balearic Islands
	Percentage of each pollutant in the set of emissions according to mode of transport	Inventory of pollutant emissions in the atmosphere of the Balearic Islands
17. LAND USE CONTROL, SPECIAL PLANNING AND TOURISM DEVELOPMENT	Land uses - incidence of artificial surfaces	PIAT
	Classification of urban areas according to the incidence of tourist stays in dwellings	PTI, PIAT, IDE Mallorca
	Limitations of tourist places in Mallorca depending on the territorial scope	PIAT
	Regulation parameters for the municipalities until the adaptation of the planning in the PIAT	PIAT
	Parking limitations in tourist areas and isolated beaches of Mallorca	PIAT
	Erosion and soil loss	Report on the situation of the State of the environment (2016-2017) in the Balearic Islands, IDE Mallorca
18. VISITOR SATISFACTION AND BEHAVIOR	Level of satisfaction of visitors at the exit	Balearic Islands Tourist Barometer 2016 – Mallorca Island –
	The return rate of repeat visitors (within 5 years)	Balearic Islands Tourist Barometer 2016 – Mallorca Island –
	Number of complaints received	Tourist Barometer Balearic Islands 2016 – Island of Mallorca – *partial
	Number of cases of illness and death of tourists and reason	IBESTAT *partial
	Number of tourists injured	IBESTAT *partial
	Perception of the variety of tourist experiences	Balearic Islands Tourist Barometer 2016 – Mallorca Island –
19. HEALTH SECURITY	Number of confirmed COVID cases per day	IBSALUD Viewer
	Maximum number of active COVID cases per day	IBSALUD Viewer
	Cumulative number of COVID deaths	IBSALUD Viewer
	New COVID cases per 100k in the last 7 days	IBSALUD Viewer
	COVID infection rate during the last 7 days	IBSALUD Viewer
	ICU heads used by COVID admissions	IBSALUD Viewer
	Quality of care	Patient satisfaction survey of the Ministry of Health, Family and Social Welfare and the Health Service
20. SPORTS TOURISM AND ACTIVE TOURISM	Listed beaches	GOIB
	Marinas and yacht clubs	AETIB
	Yacht clubs	AETIB
	Nautical schools	AETIB



Vector	Indicator	Source
	Nautical stations	AETIB
	Marinas and yacht clubs	AETIB
	Golf courses	AETIB
	Cycle tourism (km of road network)	AETIB
	Cycle tourism (km of signposted routes)	AETIB
	Hiking (routes and signposted trails)	AETIB
	Active tourism establishments and activities	AETIB
	Active tourism companies	AETIB
	Sports Events Calendar 2021-22	Council of Mallorca
	Sporting events	AETIB and EliteChip
	Sports tourism promotion campaigns	Council of Mallorca