ALGARVE SUSTAINABLE TOURISM OBSERVATORY

2026 ANNUAL REPORT

(Data 2025)

TECHNICAL INFORMATION

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Table of Contents

Index of Figures

Index of Tables

Summary

The Algarve Sustainable Tourism Observatory (AlgSTO) was established to monitor and promote sustainable, high-quality tourism in the region. By aggregating and generating reliable data, it supports evidence-based decision-making processes and, as part of the International Network of Sustainable Tourism Observatories (INSTO), contributes to a broader understanding of tourism's impacts.

AlgSTO uses a targeted set of indicators collected through surveys of residents (to gauge local perceptions), tourists (to assess experiences), and firms (to measure environmental behaviours), supplemented with official data from *Turismo de Portugal* and Statistics Portugal (INE), and other ongoing research projects.

In 2025, tourism in the Algarve continued to grow, showing positive results across economic, sociocultural, environmental, and destination management areas.

Economic Sustainability

Tourism continues to be a cornerstone of the Algarve's economy. In 2025:

- Tourism demand reached record levels, with 20.82 million overnight stays and 5.34 million visitors staying in accommodation facilities;
- Revenue per hotel room increased by 5.5%;
- Total income from tourist stays rose by 6.5%;
- Seasonality improved, with only 40.8% of overnight stays concentrated in the high season.

Environmental Sustainability

Water management is a crucial aspect of tourism management. The tourism consumption produces a significant pressure on water resources. Tourist energy consumption also represents an enormous proportion of the total economy. While air travel continues to be the main mode of transport, car and public transport use seems to be growing. Passenger numbers at Faro Airport reached a record of 10.4 million passengers in 2025, reflecting ongoing tourism growth. There are positive signs of the increased environmental-friendly practices among tourism firms.

Social Sustainability

Most residents remain satisfied with tourism and view it positively. However, growing concern exists about the potential negative impacts. High levels of tourism density and tourism intensity, exacerbated by seasonality, create pressures in many municipalities.

Destination Management

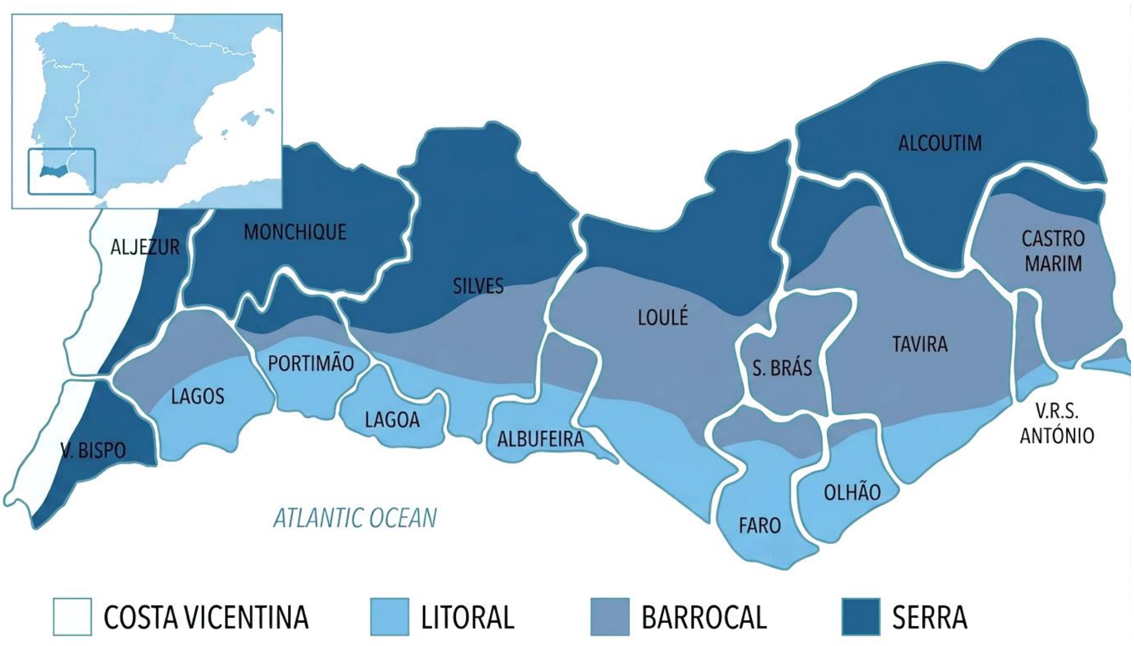
Visitor satisfaction remains high. Many tourists reported they would recommend the Algarve and plan to return within five years, indicating a loyal and satisfied visitor base. Tourism in the Algarve is thriving, yet challenges persist. Sustainable growth requires protecting the environment, supporting local communities, and improving accessibility. The data provided by AlgSTO guides evidence-based decisions to ensure a more sustainable and balanced future for tourism in the region.

1. Algarve: Destination in Brief

The Algarve, Portugal's southernmost region, spans 4,997 km² and is home to approximately 499,700 residents in 2025, making it one of the fastest-growing areas in the country. Comprising sixteen municipalities across different territories that integrate the *Costa Vicentina*, *Serra (*mountain range), *Barrocal* (hinterland), and *Litoral* (the coastline), the Algarve combines vibrant urban centres with rich coastal and inland landscapes. Its population density of 98.6 per km² reflects a balance between lively towns and protected natural areas (source: INE).

Well-connected by air, road, rail, and maritime networks, the region welcomes visitors from around the world, with Faro International Airport serving as the primary gateway and major motorways, such as the A1 and A22 linking it to Lisbon and surrounding regions. Its appeal as a tourism destination stems from mild year-round weather, over 3,000 hours of sunshine, and more than 200 km of coastline featuring cliffs, coves, sea caves, and wide sandy beaches with clear, calm waters. Inland, around 37% of the territory lies within nature reserves, parks, or protected landscapes, offering abundant opportunities for walking, trekking, cycling, birdwatching, and other outdoor experiences.

Figure 1. The location of Algarve



Source: Own elaboration

Tourism is the catalyst of the Algarve's economy, with a significant share of employment, and local businesses providing diverse services and accommodations. Golf, beaches, cultural heritage, gastronomy based on the Mediterranean diet, marinas, and sport and cultural facilities contribute to a rich and varied visitor experience. The population is

known for its hospitality, multilingualism, and commitment to sharing local traditions, history, and arts with visitors to the region.

Since the 1960s, the Algarve has cemented its status as Portugal's leading tourism destination, consistently contributing a significant share of national overnight stays and attracting millions of international visitors annually. Today, it remains one of Europe's premier coastal destinations, recognized through multiple international awards, including the World's Leading Beach Destination distinction at the World Travel Awards. Golf tourism further strengthens its reputation as a year-round destination of excellence. The Algarve caters to a broad range of tourism segments, including Nature, Cultural and Heritage, Gastronomy and Wine, Health and Well-being, Accessible Tourism, Luxury, LGBTQIA+, Cruises, Campervan Tourism, Weddings, Meetings and Events, and Digital Nomads.

The year 2025 marked a milestone for the region, with record-breaking economic performance and sustained demand, reinforcing tourism's central role in both the regional and national economy. In 2025, the Algarve recorded 20.82 million overnight stays, a 0.4% increase from 2024, and welcomed 5.34 million visitors staying in accommodation facilities, up 1.8%. International visitors are prevalent, accounting for 16.0 million overnight stays and 3.87 million visitors staying in accommodation facilities, while domestic tourism also showed notable growth, with 4.82 million overnight stays (+3.2%) and 1.48 million visitors staying in accommodation facilities (+2.4%). This rising domestic demand has contributed to reducing seasonality and supporting more balanced, year-round activity. Economic indicators reached unprecedented highs. Total tourism revenues climbed to €1.8 billion (+6.5%), while RevPAR reached €78.5 (+5.5%) and ADR €134.4 (+6%). The average length of stay was 3.9 nights, placing the Algarve second nationally, and room occupancy stood at 65.0%. Seasonality also improved, with just 38.1% of visitors staying in accommodation facilities and 40.8% of overnight stays concentrated in the high season—the lowest levels ever recorded for the destination (source: RTA).

In recent years, environmental sustainability has become increasingly central. In response to climate pressures and environmental vulnerability, particularly water scarcity, regional stakeholders have launched initiatives, such as the "Save Water" campaign, promoting efficient resource use among tourism businesses, local authorities, residents, and visitors.

Despite these positive aspects, underlying challenges persist. Structural pressures, particularly the ongoing shortage of human resources in the sector, are increasingly apparent. Social sustainability is another emerging concern. While residents' attitudes toward tourism remain largely positive, rising housing and living costs are beginning to strain local communities, potentially affecting perceptions in the near future. Early signs of these pressures were already evident in previous reports and are expected to intensify.

These dynamics underscore the importance of effective monitoring to support sustainable tourism and evidence-based decision-making. Stakeholders view AlgSTO not just as a monitoring platform, but as a strategic tool for understanding emerging challenges and guiding the Algarve toward a more sustainable and balanced tourism model.

2. Sustainable Tourism: Key Dimensions and Indicators Used

To ensure sustainable growth, the Algarve Sustainable Tourism Observatory (AlgSTO) monitors the sector across economic, social, and environmental dimensions. This approach supports informed decision-making, helping the region balance visitor satisfaction, local community well-being, and the preservation of natural and cultural assets while maintaining its position as a premier European destination.

This report presents information based on indicators referenced in the European Tourism Indicators System for Sustainable Destination Management (ETIS) for the eleven mandatory sustainability areas of tourism that delimit AlgSTO's commitment held before the UNWTO-INSTO. The areas are: (1) Local satisfaction with tourism; (2) Economic benefits of the destination; (3) Employment; (4) Seasonality; (5) Energy management; (6) Water management; (7) Wastewater management; (8) Solid waste management; (9) Governance; (10) Accessibility and inclusion; (11) CO2 emissions.

AlgSTO focused on four dimensions of sustainability: economic (given the impacts on economic growth), environmental (attending to tourism impacts on natural resources), social (due to the impacts of tourism on people and their well-being), and destination management (which encompasses sustainable tourism management and tourists' satisfaction) (Pereira et al., 2025).

Table 1 presents detailed information on the indicators for each sustainability area/dimension. Data sources used to feed the indicators as shown in this report are: Statistics Portugal (INE), *Turismo de Portugal* (TdP) and the questionnaires applied to tourists, residents, and regional tourism firms. Further technical information for all indicators and estimates can be requested from the AlgSTO technical unit. Table 1 presents the indicators collected.

Table 1. Indicators of tourism sustainability in this report

	INSTO Priority Area	Indicator	DPSIR Dimension	SDG	
Economic	Tourism Seasonality	**I1** – Number of overnights spent in the region by tourists, by month	Driver	8	↑
		I2 – Seasonality rate	Driver	8	↓
		I3 – Market share of main source markets	Driver	17	↔
	Employment	**I4** – Tourism employment as a percentage of total employment in the region	Impact	8	↑
	Destination Economic Benefits	**I5** – Revenue per available room (RevPAR) in tourist accommodation establishments	Impact	8	↑
		I6 – Average length of stay of international tourists	Driver	8	↓
		I7 – Total revenue in tourist accommodation establishments	Impact	8	↑
		I8 – Average number of golf rounds played	Driver	12	↓
Environmental	Energy Management	**I9** – Tourism energy consumption as a percentage of total economy	Pressure	7	↓
		I10 – Establishments optimising energy consumption	Response	7	↑
		I11 – Share of energy from self-consumption	Response	7	↑
	Water Management	**I12** – Daily water consumption of tourists	Pressure	6	↓
		I13 – Establishments optimising water consumption	Response	6	↑
	Wastewater Management	**I14** – Wastewater Seasonal Volumetric Strain Ratio	Pressure	6	↓
	Solid Waste Management	**I15** – Establishments separating waste	Response	12	↑
		I16 – Waste generation by tourism activities and tourists	Pressure	12	↑
	Climate Action	**I17** – Tourism businesses using circular economy principles	Response	13	↑
		I18 – Single-use plastics disuse rate	Response	13	↑
		I19 – Visitors of protected areas	Pressure	13	↓
	Mobility	**I20** – Tourists using different transport modes to reach the destination	Pressure	11	↔
		I21 – Passenger traffic on inland waterways	Pressure	11	↔
		I22 – Airport Carbon Footprint	Pressure	9	↓
		I23 – Passengers disembarked at Faro Airport	Driver	9	↑
Social	Local Community Satisfaction	**I24** – Residents satisfied with tourism *(Overall Sentiment)*	Impact	11	↓
		I25 – Number of beds available in accommodation per 1,000 residents	State	11	↔
		I26 – Tourism Density	State	11	↑
		I27 – Tourism Intensity	State	11	↔
	Cultural Impacts	**I28** – Residents satisfied with tourism impacts on destination identity	Impact	11	↓
	Accessibility & Inclusion	**I29** – Accessible accommodation establishments	Response	10	↑
		I30 – Accessible attractions	Response	10	↑
Destination Management	Governance	**I31** – Businesses with voluntary sustainability / CSR certification	Response	12	↑
	Visitor Experience	**I32** – Tourist satisfaction *(Overall Destination)*	Impact	4	↔
		I33 – Tourists perceived quality experience	Impact	8	↑
		I34 – Experience indicators: recommendation intention	Impact	8	↑
		I35 – Experience indicators: intention to revisit	Impact	8	↑

Source: Own elaboration

3. Recent Figures

3.1. Economic Sustainability

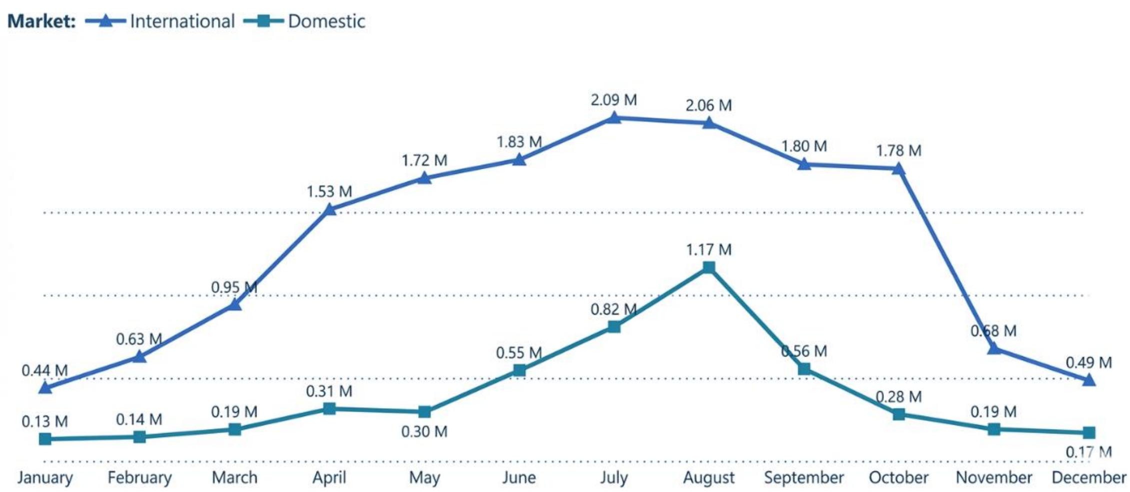
Tourism generates significant economic benefits, often making it the most emphasized aspect when highlighting the sector's overall relevance. It stimulates local economies by creating jobs across a wide range of activities, from hospitality and transport to retail and cultural services, while also encouraging entrepreneurship and small-business growth. Tourism injects foreign currency into national economies, strengthens public finances through taxes and fees, and drives investment in infrastructure that benefits both visitors and residents. Because these economic gains are immediate, measurable, and widely distributed, they tend to dominate discussions about why tourism matters, frequently overshadowing environmental, social, or destination management dimensions of the sector.

3.1.1. Tourism Seasonality

I1 – Number of overnights spent in the region by tourists, by month

Total overnight stays reached **20.8** million, reflecting an increase of 0.4%. This dashboard provides a breakdown of the tourism overnight stays, categorized by domestic and international markets. National overnight stays reached 4.8 million, representing a 3.2% year-over-year increase. In contrast, international overnight stays volume was significantly larger at 16.0 million, despite experiencing a slight marginal decline of -0.4%. Overall, the market is heavily dominated by international tourism, which accounts for the vast majority of the total share at 76.8%, while domestic stays make up the remaining 23.2%.

Figure 2. Overnight stays in the Algarve, monthly variation, 2025



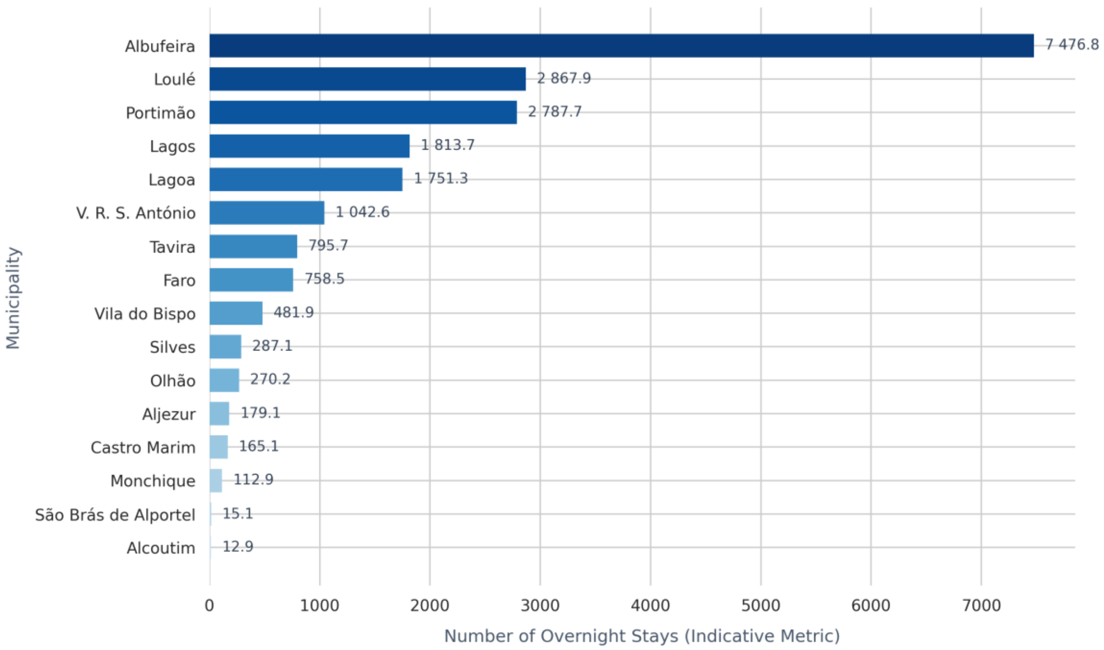
Source: Travel BI (https://travelbi.turismodeportugal.pt/alojamento/dormidas/)

Figure 3. Overnight stays in the Algarve, 2025

Source: Travel BI (https://travelbi.turismodeportugal.pt/turismo-portugal/analise-regional/)

Municipal data reveal a stark geographical imbalance across the Algarve, with a staggering hyper-concentration of overnight stays in just a few coastal hubs. The absolute market leader, Albufeira (7,476.78), single-handedly outperforms the combined totals of the second and third most popular destinations, Loulé (2,867.92) and Portimão (2,787.67). While premium coastal areas like Lagos and the highly efficient Lagoa maintain strong mid-tier performances, the traditional 'sun and sea' model creates a dramatic economic decoupling from the rural interior. Mountainous and eco-restricted municipalities, such as Monchique (112.93), São Brás de Alportel (15.05) and Alcoutim (12.85), remain less visible

Figure 4. Overnight stays in the Algarve, by municipality, 2025

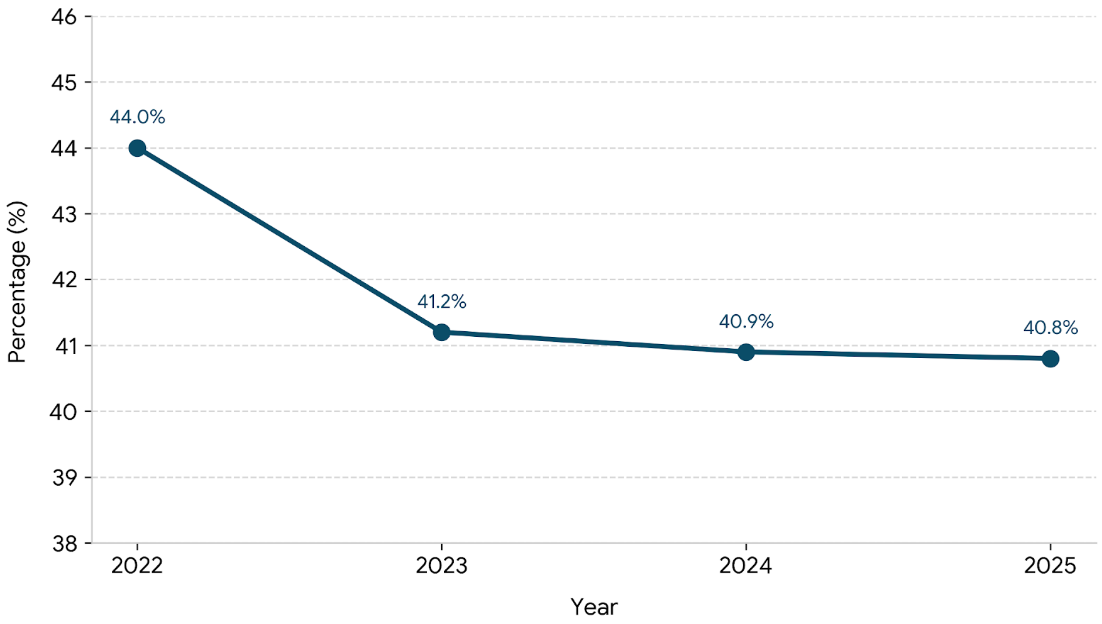


Source: Travel BI (https://travelbi.turismodeportugal.pt/alojamento/indicadores-municipio)

I2 – Seasonality rate

Data show a clear downward trend in the seasonality rate over the analysed period, dropping from 44.0% in 2022 to **40.8%** by 2025. The most significant drop occurred between 2022 and 2023, where the rate fell by 2.8 percentage points. Following that sharp decline, the rate began to stabilize, showing only marginal decreases over the next two years. This steady reduction suggests a positive shift toward a more balanced, less seasonal distribution of overnight stays throughout the year.

Figure 5. Seasonality rate, Algarve, 2022-2025



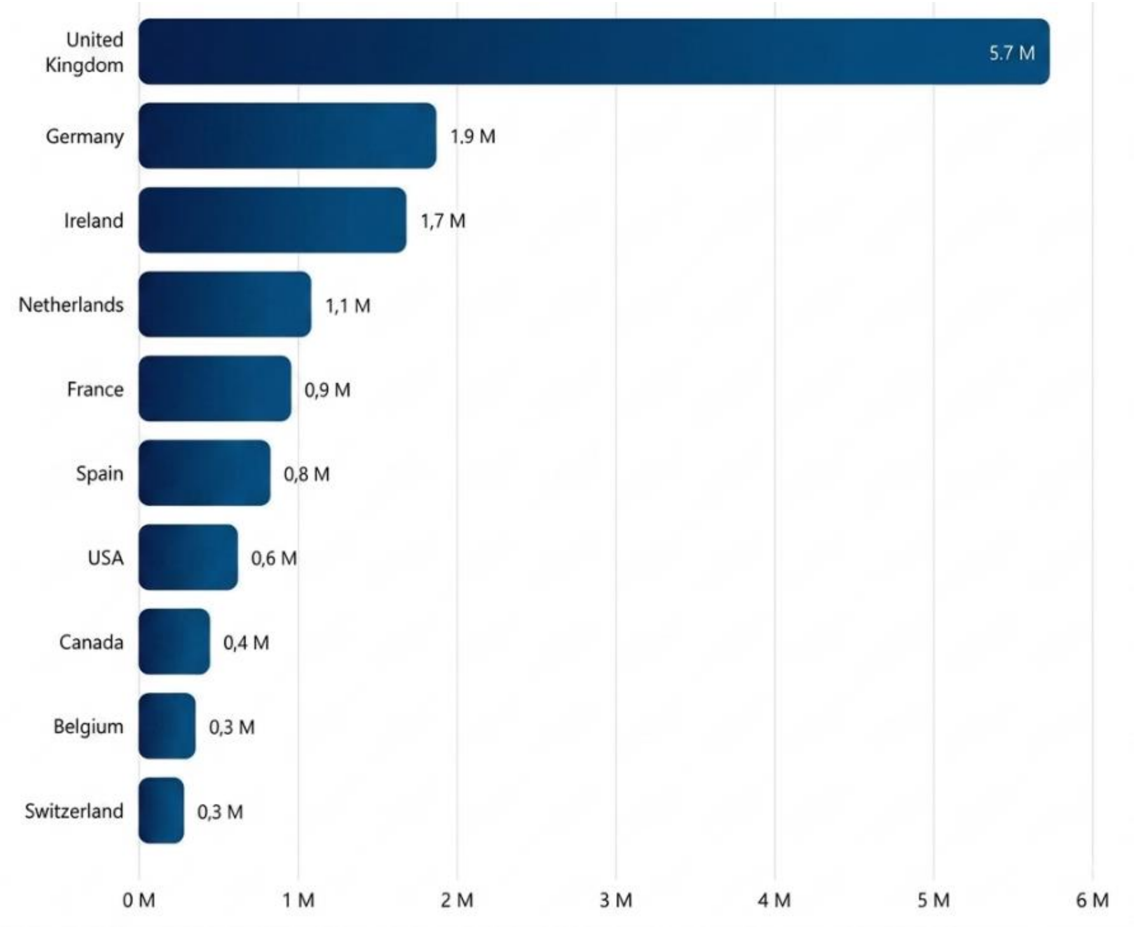
Source: Travel BI (https://travelbi.turismodeportugal.pt/turismo-portugal/taxa-sazonalidade)

I3 – Market share of main source markets

Among the top 10 inbound tourism markets, the United Kingdom is the undisputed leader, generating 5.7 million overnight stays—nearly three times the volume of the next largest market. Germany and Ireland follow as the second and third largest source countries, contributing 1.9 million and 1.7 million stays, respectively. The remaining volume is distributed across continental Europe and North America, with the lowest contributions in the top ten coming from Belgium and Switzerland, each accounting for 0.3 million overnight stays.

Based on the overall market volume of 20.8 million overnight stays, the data highlight the substantial influence of a few core source markets alongside a highly diversified long tail of smaller nations. The United Kingdom stands out as the dominant market, single-handedly capturing more than a quarter of the entire market share (27.4%), followed at a distance by Germany (9.1%) and Ireland (8.2%). Mid-tier European markets also maintain a steady footprint, led by the Netherlands (5.3%), France (4.3%), and Spain (3.8%), while North American traffic contributes a combined chunk through the USA (2.9%) and Canada (1.9%). Rounding out the top ten are Belgium (1.4%) and Switzerland (1.4%). Crucially, unlisted countries grouped as "Others" account for the single largest collective block (34.1%), demonstrating that while the region relies heavily on its traditional British and Northern European pillars, it successfully draws a variety of global visitors.

Figure 6. Top ten markets, Algarve, 2025



Source: Travel BI (https://travelbi.turismodeportugal.pt/turismo-portugal/analise-regional/)

In 2025, the Algarve remained highly dependent on its three main international source markets, which represented **58.0**% of total international visitors staying in accommodation facilities. Despite a slight decline compared with 2024, the share declined by 0.8 percentage points, representing a relative decrease of approximately 1.4%, this share remains the highest among all Portuguese regions.

Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/dependencia-3-principais-mercados/).

3.1.2. Employment

I4 – Tourism employment as a percentage of total employment in the region

Using 2024 data from Statistics Portugal (INE), regional employment in the Algarve was mapped. Then a tourism-specific national imputation key, adapted from information of Banco de Portugal, was applied to isolate tourism's actual impact on the local labour market. Starting from total regional employment of 235,400 workers, the dataset was narrowed to six core economic sectors (CAE Sections I, N, H, R, M, and J) that either drive or support tourism activity. This produced a maximum raw estimate of 74,300 workers, representing approximately 31.56% of total regional employment.

By applying specific imputation coefficients, such as capturing 100% of accommodation, 40% of food services, and 70% of travel agencies and air transport, non-tourism related economic noise was filtered out. The resulting model reveals that direct tourism-driven employment accounts for an estimated 39,750 jobs. This indicates that even under strict and conservative coefficient filters, core tourism activities directly generate nearly **17%** of all employment in the Algarve, underscoring the industry's vital role as a regional economic anchor.

Table 2. Regional employment in tourism, Algarve, 2024.

CAE Section	Specific Subsector	Estimated Employment in Algarve (Thousands)	Imputation Coefficient	Allocated Tourism Employment (Thousands)
I	Accommodation	16.00	1.0	16.00
I	Food and beverage service activities (Restaurants, etc.)	23.40	0.4	9.36
H	Land transport	7.00	0.5	3.50
H	Water and air transport	2.30	0.7	1.61
N	Rental and leasing activities (Rent-a-car, etc.)	6.00	0.6	3.60
N	Travel agencies and tour operators	4.00	0.7	2.80
R	Creative, arts, and entertainment activities	2.00	0.3	0.60
R	Libraries, archives, museums, and cultural activities	1.10	0.3	0.33
R	Sports and amusement/recreation activities	3.50	0.3	1.05
M	Legal, accounting, and advertising activities	5.60	Variable (e.g., 0.1)	0.56
J	Telecommunications and publishing activities	3.40	Variable (e.g., 0.1)	0.34
—	ESTIMATED TOTAL	74.30	—	39.75

Source: Own Calculation based on INE and Banco de Portugal imputation key https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_destaques&DESTAQUESdest_boui=707497405&DESTAQUESmodo=2)

Data from the survey to residents provides a complementary perspective, highlighting a strong and consistent expansion of employment within the tourism sector over the four years. The number of residents who mention that they are employed in activities connected to tourism grew from 39,8% in 2022 to 47,13% by 2025.

Table 3. Residents who perceive working in tourism-related activities, Algarve, 2024.

Metric	2022	2023	2024	2025
Residents that mention working in Tourism (%)	39.80	43.60	44.35	47.13

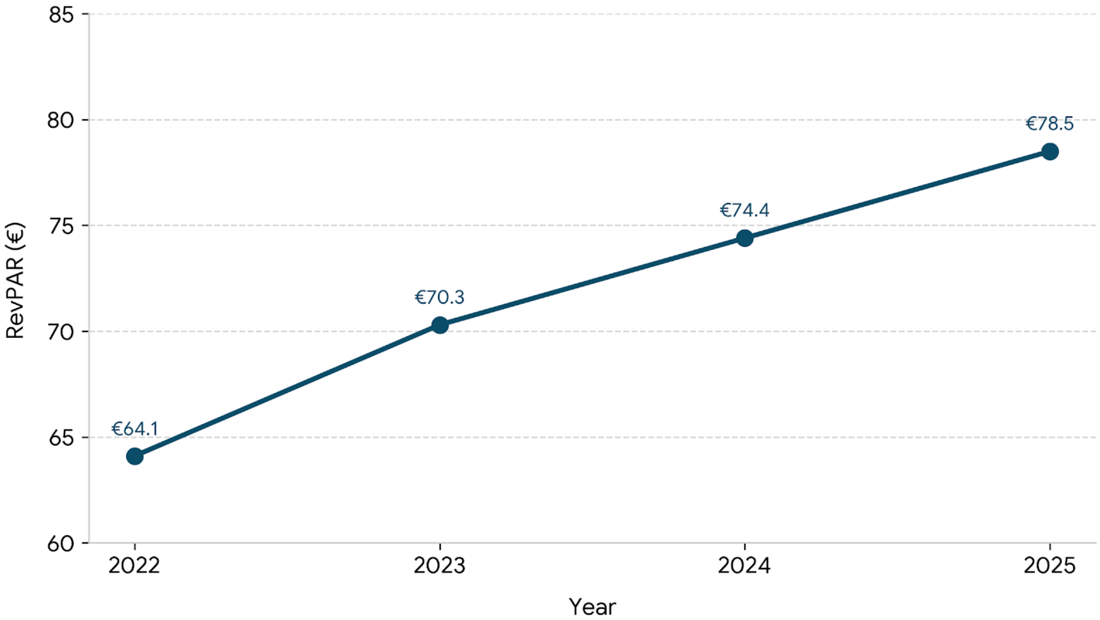
Source: AlgSTO Residents' Survey (data for 2025 is estimated).

3.1.3. Destination Economic Benefits

I5 – Revenue per available room in tourist accommodation establishments

The RevPAR (Revenue Per Available Room) metrics demonstrate a robust and uninterrupted upward trajectory in hotel profitability from 2022 to 2025. Over this four-year span, RevPAR expanded significantly from €64.1 to **€78.5**, representing an impressive overall growth of 22.5%. The most substantial gain took place between 2022 and 2023, where stronger pricing power drove a sharp 9.7% jump. This initial surge was followed by a phase of healthy stabilization, with growth maintaining a steady and reliable pace of over 5.5% annually through 2025. This consistent performance underscores sustained market demand and the increasing premium value of the region's accommodation sector.

Figure 7. Revenue Per Available Room, Algarve, 2022-2025

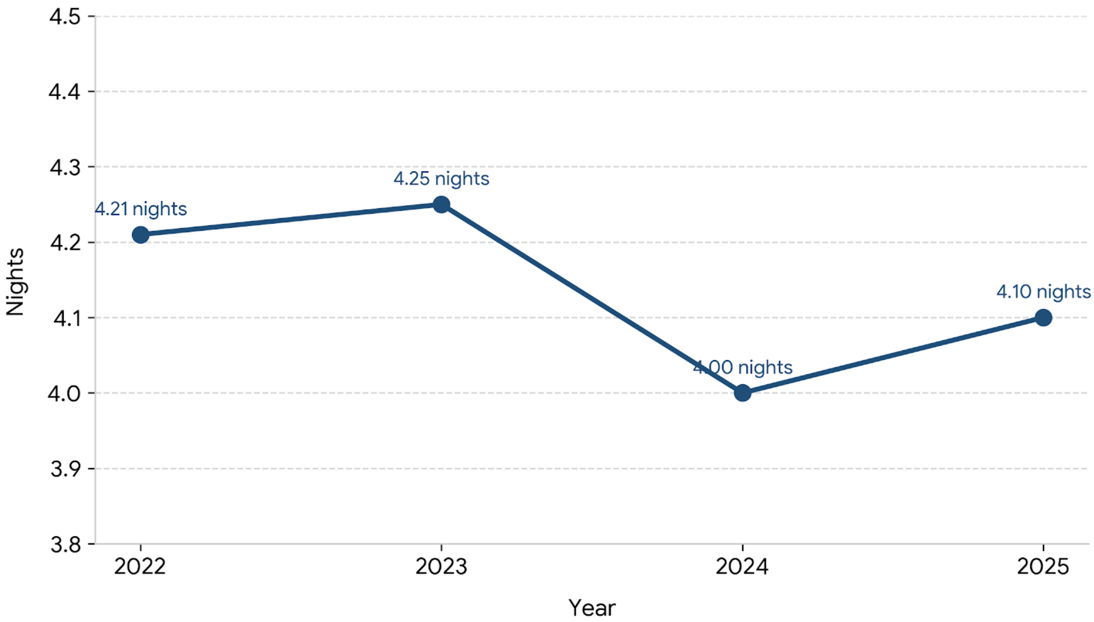


Source: Travel BI (https://travelbi.turismodeportugal.pt/turismo-portugal/analise-regional/)

I6 – Average length of stay of international tourists

The average length of stay for international tourists experienced slight fluctuations between 2022 and 2025, peaking at 4.25 nights in 2023 before contracting to a low of 4.00 nights in 2024. However, 2025 showed a positive recovery, with the average stay expanding back up to **4.10** nights (a 2.5% rebound year-over-year). Compared to the overall regional average stay which declined to 3.9, international visitors demonstrate a more resilient duration of stay, remaining consistently above the 4-night threshold for three out of the four analysed years.

Figure 8. Average length of stay of international tourists, Algarve, 2022-2025



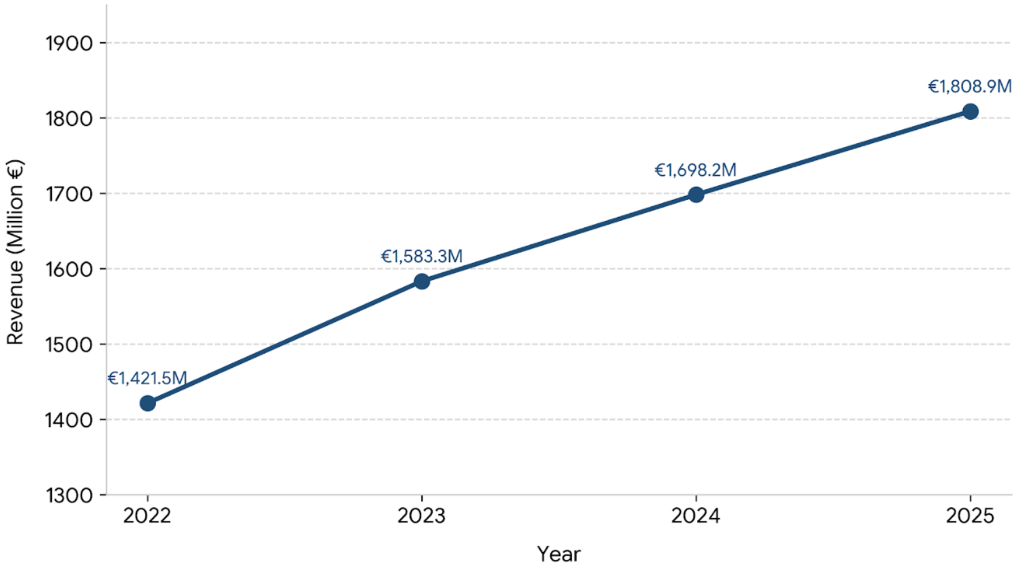
Source: Own calculations based on Travel BI (https://travelbi.turismodeportugal.pt/turismo-portugal/analise-regional/)

I7 – Total revenue in tourist accommodation establishments

The total revenue generated by the tourism accommodation sector experienced a powerful expansion between 2022 and 2025, climbing from €1,421.5 million to **€1,808.9** million. This represents an absolute increase of over €387 million, resulting in a cumulative growth of 27.2% over the four years. Similar to the RevPAR patterns observed previously, the sector registered its most explosive growth in 2023 with a double-digit surge of 11.38%.

While the growth dynamic naturally moderated over the following two years, it maintained a highly profitable trajectory, settling at a robust 6.52% increase in 2025. This data indicate that the accommodation market did not just increase its nightly yield (RevPAR) but successfully scaled its overall capacity to generate massive financial inflows.

Figure 9. Total revenue in tourist accommodation establishments, Algarve, 2022-2025

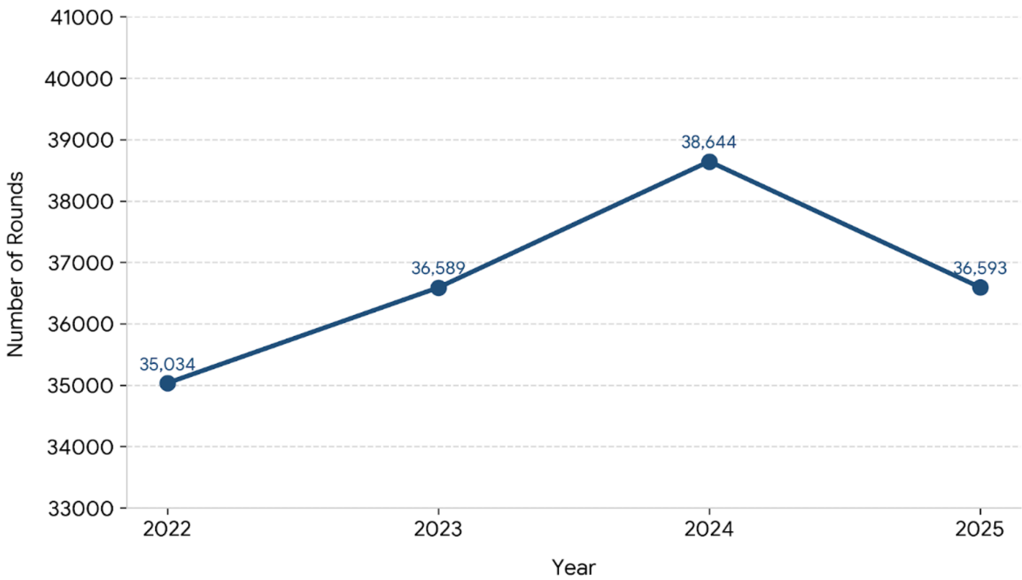


Source: Travel BI (https://travelbi.turismodeportugal.pt/alojamento/proveitos/)

I8 – Average number of golf rounds played

Golf is a crucial product for the regional tourism dynamics and to limit seasonality. The volume of golf rounds played followed a steady upward trajectory before experiencing a notable correction in the final year. Between 2022 and 2024, the sector demonstrated consistent growth, expanding by 4.44% in 2023 and peaking at 38,644 rounds in 2024 following a 5.62% year-over-year acceleration. However, this positive momentum reversed sharply in 2025, with the number of rounds contracting by 5.31% to settle at **36,593**. This downturn stands out as a unique divergence, indicating a localized correction in sports tourism demand even while the region's broader accommodation sector continued to hit record financial revenues during the same period.

Figure 10. Average number of golf rounds played, Algarve, 2022-2025



Source: Travel BI (https://travelbi.turismodeportugal.pt/golfe/golfe-caracterizacao-oferta-procura-portugal)

3.2. Environmental Sustainability

Tourism and environment are deeply interconnected. The environmental attributes and resources constitute the basic background for the evolution, growth and development of tourism in the destination area. Increasing tourism activities in a destination without proper management often results in overuse and degradation of the natural environment and other resources of tourism, which will eventually lead to a decline in the growth of tourism and loss of tourism value.

3.2.1. Energy Management

I9 – Tourism energy consumption in percentage of total economy

The analysis of physical energy volume reveals that the core tourism and support sectors account for a combined total electricity consumption of 488.4m kWh, which represents **19.02%** of the region's entire energy grid 2,568.2 m kWh. Once the tourism imputation coefficients are applied to filter out localized baseline demand, the direct tourism-driven energy footprint is isolated at 350.0m kWh, capturing 13.63% of the total regional consumption. Within this footprint, the Accommodation sector (CAE 55) emerges as the absolute utility anchor, accounting for 80.5% of the industry's total allocated electricity volume with a net consumption of 281.9m kWh. This stark concentration highlights that the physical lodging infrastructure represents the heavy operational core of the region's resource demand, far outpacing the combined requirements of transit, dining, and recreational tourism activities, meaning that more than 1 in every 8 kWh consumed across the entire economy is directly driven by tourism operations.

Table 4. Tourism energy consumption, Algarve, 2024

CAE	Specific Subsector / Economic Activity	Total Consumption (kWh)	Imputation Coefficient	Allocated Tourism Consumption (kWh)
55	Accommodation	281,867,974	**1.0**	281,867,974
56	Food and beverage service activities	110,513,252	**0.4**	44,205,301
49	Land transport	11,164,361	**0.5**	5,582,181
77	Rental and leasing activities (Rent-a-car, etc.)	3,235,463	**0.6**	1,941,278
79	Travel agencies and tour operators	1,409,560	**0.7**	986,692
90	Creative, arts, and entertainment activities	601,052	**0.3**	180,316
91	Libraries, archives, museums, and cultural activities	493,379	**0.3**	148,014
93	Sports, amusement, and recreation activities	36,073,715	**0.3**	10,822,115
69-74	Legal, accounting, consulting, and advertising	18,190,011	*Variable (0.1)*	1,819,001
61	Telecommunications	24,851,141	*Variable (0.1)*	2,485,114
—	**TOTAL FOR TOURISM-LINKED SECTORS**	**488,399,908**	—	**350,037,986**

Source: Total Consumption from DGEG (2024 data) and Banco de Portugal imputation key https://www.dgeg.gov.pt/pt/estatistica/energia/eletricidade/consumo-por-municipio-e-setor-de-atividade/)

I10 – Establishments optimising energy consumption

The share of tourism accommodation establishments actively optimising their energy consumption reached **65.9**% in 2025, reflecting a steady year-over-year expansion of 1.2%. This positive increment demonstrates that nearly two-thirds of the region's hospitality infrastructure has now integrated energy-efficiency measures into its core operations. While this gradual growth indicates that the initial wave of rapid, large-scale adoptions is beginning to stabilise, it also highlights an ongoing, industry-wide commitment to carbon footprint reduction. When paired with the sector's self-consumption patterns and waste management strides, this steady climb underscores a systematic transition towards long-term operational sustainability and resource resilience across the regional tourism landscape.

Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/desempenho-ambiental-alojamento-portugal-2025)

I11 – Share of energy from self-consumption

Integrating the tourism matrix into the wider regional baseline reveals that direct, imputed tourism activities account for **9.52%** of all green self-consumption generated across the economy. This distribution is intensely concentrated. the Accommodation sector (CAE 55) alone generates 8.23% of the entire region's self-consumed electricity, making it a critical driver of local commercial renewable adoption. However, when evaluating energy maturity via the grid autonomy benchmark, the whole tourism ecosystem averages an internal sustainability rate of 2.80%, trailing behind the aggregate regional benchmark of 4.01%. This gap underscores that while specific tourism heavyweights dominate the absolute generation volumes, the wider hospitality sector (particularly food and beverage operations, which capture just 0.34% of regional self-consumption) still holds substantial untapped potential for solar expansion to bridge the deficit against the regional baseline."

Table 5. Share of energy from self-consumption, Algarve, 2024

CAE	Specific Subsector	Imputed Total Cons. (kWh)	Imputed Self-Cons. (kWh)	Intra-Sector Autonomy (%)	Share of Total Regional Self-Cons. (%)
55	Accommodation	281,867,974	8,465,490	3.00%	**8.23%**
93	Sports & Recreation	10,822,115	595,372	5.50%	**0.58%**
56	Food & Beverage Services	44,205,301	350,499	0.79%	**0.34%**
69-74	Professional/Consulting	1,884,140	135,771	7.20%	**0.13%**
49	Land Transport	5,582,181	123,968	2.22%	**0.12%**
77	Rental & Leasing (Rent-a-car)	1,941,278	47,348	2.44%	**0.05%**
91	Libraries, Museums & Culture	148,014	34,050	23.00%	**0.03%**
79	Travel Agencies & Operators	986,692	33,201	3.36%	**0.03%**
90	Creative, Arts & Entertainment	180,316	8,844	4.90%	**0.01%**
61	Telecommunications	2,485,114	5,067	0.20%	**0.00%**
—	**Tourism Direct Impact**	**350,037,986**	**9,799,610**	**2.80%**	**9.52%**
—	**Total Regional Benchmark**	**2,568,235,358**	**102,907,183**	**4.01%**	**100.00%**

Source: Total Consumption from DGEG (data from 2024, https://www.dgeg.gov.pt/pt/estatistica/energia/eletricidade/consumo-por-municipio-e-setor-de-atividade/)

3.2.2. Water Management

I12 – Daily water consumption of tourists

AlgSTO estimated a model using a simplified annual water balance to separate the total volume of distributed water into two components: baseline resident consumption and tourism-driven consumption. The goal is to isolate and measure the relative pressure that tourism exerts on regional water supplies.

- Resident Consumption: Calculated using the daily per capita consumption of permanent residents (converted from annual national statistics) multiplied by 365 days and the total resident population.
- Tourism Consumption: Calculated using the total number of annual overnight stays. To account for the heavy water requirements of tourism infrastructure (such as pools, ground irrigation, and daily laundry operations), the model assumes a single tourist day consumes three times the volume of a resident.
- Tourism Weight Share: Calculated by dividing the annual tourism volume by the annual resident volume to show the scale of visitor demand relative to the permanent local population baseline.

The results expose a profound structural asymmetry between the Algarve's regional reality and the national average. Anchored on the benchmark population of 484,000 permanent residents in 2023—which establishes a local baseline requirement of 59.7 hm3—the scale of tourism-induced pressure is exceptionally critical.

Driven by a high domestic per capita footprint and immense annual intensity, a tourist in the Algarve is modelled to consume an acute **1,014 litres per day**. Consequently, the region's tourism water demand reaches 21.1 hm3, equivalent to 35.3% of the entire resident population's annual consumption.

When contrasted against the aggregate benchmark for Portugal, where tourism represents a manageable 6.4% of resident demand, the Algarve's relative hydric pressure is shown to be over five times higher than the national baseline. This stark divergence highlights that while the country's macro water profile appears highly balanced on paper, the extreme concentration of tourism demand within this specific territory creates localized infrastructure pressures that are vital to isolate for long-term climate resilience and regional asset planning.

Water management is a key aspect of the Algarve’s sustainability. Indirect water consumption is also worth mentioning and should be considered in future studies. Only in this way can a more precise water footprint of tourism in the region be calculated. It should be noted that these estimates do not consider the proportion of use relative to the region’s actual available water resources. Accounting for this would require further analysis, but it would also help illustrate the challenges the region faces in terms of water stress. The total tourism footprint is likely underestimated, as a large number of visitors stay in short-term rentals and are therefore not captured in official overnight stay statistics, which were used in this analysis.

Table 6. Daily water consumption of tourists, Algarve, 2024

Region	Daily Consumption per Tourist (L/day)	Annual Tourism Consumption (hm3/year)	Annual Resident Consumption (hm3/year)	Tourism Weight vs Resident Baseline (%)
Algarve (2023 Baseline)	**1,014**	**21.1**	**59.7**	**35.3%**
Portugal (National Benchmark)	534	43.8	680.0	6.4%

Source: Own estimation based on data from INE for 2023 (particularly https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0013560&selTab=tab0)

I13 – Establishments optimising water consumption

The proportion of tourism accommodation establishments actively optimising their water consumption climbed to **74.5%** in 2025, supported by a year-over-year expansion of 1.3%. This metric highlight that nearly three-quarters of the region's hospitality infrastructure has now deployed water-saving equipment or protocols.

Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/desempenho-ambiental-alojamento-portugal-2025)

Data from RTA shows that “SaveWater” participating tourism firms achieved a 13% reduction in total water consumption and a 10% reduction in specific water use (per overnight stay) compared with the previous year. This performance represents savings of more than 348,000 cubic metres of water, equivalent to around 2% of the usable storage capacity of the Algarve’s reservoirs. It also translates into an average annual saving of over € 6,700 per establishment, delivering both environmental and economic benefits. In 2025, 105 tourism enterprises—representing more than 30% of the region’s installed accommodation capacity—voluntarily joined this commitment. More than 3,100 water efficiency measures were identified and planned, of which 73% have already been implemented (source: ADENE, *Turismo do Algarve*, and *Turismo de Portugal*). These efforts reflect a broader commitment to protecting the region’s natural resources and ensuring long-term resilience.

Complementarily, according to data from the 2025 AlgSTO Regional Firms Survey, an overwhelming 90.9% of surveyed tourism businesses stated that they are actively promoting the efficient use of water within their operations. While this metric stems from an exploratory exercise that is far from being statistically representative of the entire regional firms, the exceptionally high response rate serves as a strong qualitative indicator of current corporate sentiment. This finding suggests a widespread corporate alignment regarding regional water scarcity, indicating that the vast majority of responding companies have internalised the territory's acute hydric pressures and are engaging in proactive resource management (Source: Regional Firms Survey).

3.2.3. Wastewater Management

I14 – Wastewater seasonal volumetric strain ratio

Drawing on data from *Águas do Algarve*, three macro-indicators derived from the 'Volume of treated wastewater supplied to municipalities' dataset were calculated. The first, the Seasonal Volumetric Strain Ratio, compares processing volumes between

August and January to evaluate the seasonal pressure exerted on local utilities during peak tourism periods. The second, the Treatment Volatility Index, calculates the percentage increase between winter and summer throughput, effectively distinguishing resilient, stable urban systems from municipalities highly dependent on seasonal tourism surges. Finally, the Summer Circular Economy Contribution assesses the proportion of total annual wastewater generated between June and August, identifying the specific territories that offer the greatest potential for water reuse initiatives.

Aggregated regional data for the 2023–2024 period indicates a notable compression in the relative seasonal shock absorbed by the Algarve's wastewater network. The Wastewater Seasonal Volumetric Strain Ratio contracted from 1.49 to 1.39, directly mirroring a ten-percentage point decline in the Treatment Volatility Index, which fell from 49.41% to **39.31%**. Crucially, this relative stabilization does not signify a contraction in tourism demand; rather, it reflects a robust expansion in winter baseline flows that outpaced summer growth, thereby dampening the proportional impact of high-season spikes despite record absolute volumes in August.

Concurrently, the Summer Circular Economy Contribution demonstrated remarkable structural resilience, shifting marginally from 29.59% to 29.06%. This long-term consistency confirms that approximately 30% of the region's annual wastewater output remains highly concentrated within the June–August period. By yielding a highly predictable and substantial effluent stream during peak drought months, this structural concentration reinforces the viability of regional water resource exploitation, offering a dependable asset for strategic water reuse initiatives, such as agricultural and golf course irrigation, to successfully mitigate regional water scarcity and benefiting from the nutrients present in treated waste water.

Table 7. Wastewater indicators, Algarve, 2023-2024

Regional Indicator	2023	2024
Seasonal Volumetric Strain Ratio	1.49	1.39
Wastewater Treatment Volatility Index (%)	49.41%	39.31%
Summer Circular Economy Contribution (%)	29.59%	29.06%

Source: Own calculations based in data from Águas do Algarve (https://www.aguasdoalgarve.pt/sites/aguasdoalgarve.pt/files/paginas_base/saneamento/volumes_agua_residual/saneamento_31dez.pdf)

At the municipal level, the Wastewater Seasonal Volumetric Strain Ratio exposes a stark geographical divergence between the Algarve's coastal tourism hubs and its stable or rural area. The 2024 data reveal that coastal (*Litoral*) municipalities endure immense structural pressure during the peak holiday season, led by Albufeira with a ratio of 2.11, closely followed by Lagoa at 1.73 and Vila do Bispo at 1.49.

These figures indicate that their treatment facilities must process up to double their standard winter volume in August alone. Conversely, inland (*Serra*) and border areas demonstrate a completely flat or inverted profile; Alcoutim exhibits a balanced ratio of 0.99, while Monchique drops to 0.65, demonstrating that these municipalities experience zero high-season utility stress.

Table 8. Wastewaster indicators, Algarve municipalities, 2023-2024

Municipality	Seasonal Volumetric Strain Ratio	Treatment Volatility Index (%)	Summer Circular Economy Contribution (%)
Albufeira	2.11	111.00%	34.02%
Alcoutim	0.99	-1.28%	24.36%
Aljezur	1.17	16.92%	25.12%
Castro Marim	0.97	-3.39%	24.08%
Faro	1.00	0.12%	25.46%
Lagoa	1.73	73.32%	31.54%
Lagos	1.29	29.05%	27.68%
Loulé	1.34	34.48%	27.15%
Monchique	0.65	-34.78%	19.33%
Olhão	1.34	33.75%	27.49%
Portimão	1.35	35.36%	26.65%
S. Brás de Alportel	0.81	-18.82%	23.36%
Silves	1.45	45.00%	28.51%
Tavira	1.37	37.18%	26.83%
Vila do Bispo	1.49	48.62%	27.94%
V. R. S. António	1.42	41.99%	27.24%

Source: Own calculations based in data from Águas do Algarve (https://www.aguasdoalgarve.pt/sites/aguasdoalgarve.pt/files/paginas_base/saneamento/volumes_agua_residual/saneamento_31dez.pdf)

3.2.4. Solid Waste Management

I15 – Establishments separating waste

The proportion of tourism accommodation establishments implementing waste separation practices saw a steady, uninterrupted increase over the four years, rising from 63.0% in 2022 to **69.9%** by 2025. This positive trajectory represents a cumulative gain of 6.9 percentage points in eco-efficiency adoption across the sector. The most significant structural progress occurred in 2023, which saw a robust 4.0 percentage point year-over-year jump as properties rapidly aligned with green operational standards. Following this initial surge, progress continued at a more moderate pace, increasing by 1.8 percentage points in 2024 and further consolidating with a 1.1 percentage point increment in 2025. This trend reflects a sector successfully transitioning its baseline operations towards standardized sustainability, approaching a milestone where nearly seven out of ten local establishments actively separate their residuals.

Table 9. Establishments separating waste, Algarve, 2022-2025

Year	Establishments Separating Waste (%)	Annual Growth (Percentage Points)
2022	63.0%	—
2023	67.0%	+4.0 pp
2024	68.8%	+1.8 pp
2025	69.9%	+1.1 pp

Source: Travel BI(https://travelbi.turismodeportugal.pt/sustentabilidade/desempenho-ambiental-alojamento-portugal-2025)

I16 – Waste generation by tourists

A comparative analysis of daily per capita Municipal Solid Waste (MSW) production in the Algarve (cf. AlWaste project) reveals a substantial disparity between permanent residents and tourism activities. Across all monitored waste streams, tourists generate significantly higher volumes of waste *per day*, establishing an intense baseline pressure on regional waste management infrastructure.

- Total Municipal Solid Waste: While a resident generates an average of 1.68 kg/day, a tourist produces more than double that amount at **3.44 kg/day**, resulting in a 205% relative overproduction.
- Unsorted Waste Base: Most of this footprint consists of unsorted MSW. Tourism activities yield 3.05 kg/person/day of mixed, unseparated refuse compared to the 1.32 kg/person/day produced by residents (231% overproduction).
- Recyclable Material Disparities: The most striking structural variance is observed in Glass packaging, where tourist generation (0.247 kg/day) outpaces resident generation (0.062 kg/day) by an acute 396%. Elevated volumes are also evident in lightweight packaging (Plastic/Metal at 221% overproduction) and Paper/Cardboard (204% overproduction).

Table 10. Waste generation by tourists, Algarve, 2024

Waste Category	Residents (kg/person/day)	Tourism Activity (kg/person/day)	Relative Overproduction (%)
Total MSW	1.68	3.44	**205%**
Unsorted MSW	1.32	3.05	**231%**
Glass	0.062	0.247	**396%**
Plastic / Metal	0.043	0.095	**221%**
Paper / Cardboard	0.066	0.135	**204%**

Source: Magro et al. (2025: 32)

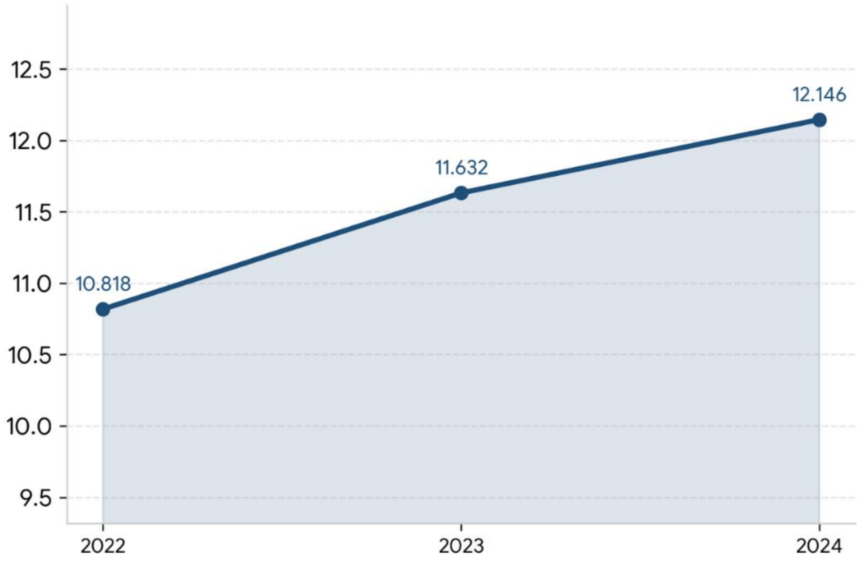
Data clearly demonstrate that a holidaymaker's daily lifestyle in the Algarve generates a much heavier environmental footprint than that of a resident. A single tourist produces 3.44 kg of waste per day, which is double the resident average. This surge is led by an acute 396% increase in glass waste, reflecting high commercial beverage turnover in holiday resorts, bars, and restaurants. Crucially, because 3.05 kg of a tourist's daily waste is thrown away completely unsorted, visitors rapidly fill up local landfills. This highlights a vital need for hotels and tourism venues to provide clearer, more accessible recycling bins so this extra volume can be sorted at the source.

I17 – Waste generation by tourism activities

The total volume of municipal waste generated directly by the tourism sector demonstrated a steady upward trajectory over the monitored timeframe, rising from 10.82 million tonnes in 2022 to **12.15 million tonnes** in 2024. This represents a cumulative absolute increase of 1,328 thousand tonnes and an overall growth of 12.3% in the industry's physical waste footprint. The sharpest annual acceleration occurred between 2022 and 2023, where waste output jumped by 7.5% (an addition of 814 thousand tonnes), reflecting a significant post-pandemic recovery in visitor volumes and hospitality operations. Although the growth dynamic began to moderate by 2024, the indicator still expanded by a further 4.4% year-over-year, underscoring the compounding environmental pressure and the critical necessity for accelerated waste

separation practices previously observed across regional accommodation establishments.

Figure 11. Waste generation by tourism activities, Algarve, 2022-2025



Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/residuos-urbanos-gerados-pelo-turismo)

3.2.5. Climate Action

I18 – Tourism businesses using circular economy principles

The integration of circular economy principles within the regional tourism industry continues to advance, with the broader adoption of circular practices reaching 74.9% in 2025, reflecting a steady year-over-year growth of 1.2%. A critical pillar of this sustainable transition is the growing proportion of tourism businesses using alternative water sources (water reuse and recycling, rainwater harvesting, desalination) for non-potable operations, such as green space irrigation and maintenance. This steady upward trend indicates that nearly three-quarters of surveyed operators have successfully embedded circular resource management into their business models. By actively integrating alternative water sources as water reuse, the sector is systematically reducing its reliance on natural water resources and municipal water supplies, marking a vital structural step toward long-term drought resilience and climate adaptation.

Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/desempenho-ambiental-alojamento-portugal-2025)

I19 – Single-use plastics disuse rate

The disuse rate of single-use plastics within tourism accommodation establishments settled at **64.3%** in 2025, experiencing a marginal year-over-year contraction of 0.5%. This metric indicates that nearly two-thirds of the region's hospitality operators have successfully eliminated or replaced disposable plastics (such as miniature toiletries, single-use cups, and straws) with sustainable alternatives. Although the minor 0.5% decrease points to a temporary stabilisation—suggesting that businesses have hit a minor operational plateau after addressing the most easily replaceable plastic items—the overall baseline remains high. This widespread consolidation demonstrates that avoiding single-use plastics is transitioning from a voluntary green trend into a core operational standard across the regional tourism landscape.

Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/desempenho-ambiental-alojamento-portugal-2025)

I20 – Visitors of protected areas

We used the historical registry of ICNF – *Instituto de Conservação da Natureza e das Florestas*, to reach an estimated projection of **41.768 thousand visitors** for 2025, reflecting an anticipated year-over-year contraction of 0.82%. The figure captures the overarching downward trend line established between 2022 and 2024, which operates at an average historical decline of approximately 173 visitors per year. While the actual data showed a brief recovery in 2024, the linear model balances this short-term fluctuation against the steeper initial drop from 2022, smoothing the curve toward a consolidated plateau. This projection advises managers to anticipate stable but slightly conservative attendance volumes, reinforcing an outlook of a fully matured ecotourism market rather than one poised for near-term expansion.

Table 11. Visitors of protected areas, Algarve, 2022-2025

Year	Visitors (Thousands)	Annual Change (%)
2022	42.460	—
2023	41.768	-1.63%
2024	42.114	+0.83%
2025	**41.768***	**-0.82%**

Source: Estimation based on data from ICNF (https://www.icnf.pt/api/file/doc/ed19a49d886cb072)

3.2.6. Mobility

I21 – Tourists using different transport modes to reach the destination

The four-year timeline reveals a clear structural realignment in how visitors travel to the Algarve. While Air travel remains the absolute backbone of regional tourism accessibility, its market share contracted steadily by 5.33 percentage points, settling at **80.47%** in 2025. This contraction was almost entirely absorbed by Car travel, which saw its share surge from 8.80% to a stable plateau of **13.80%** (+5.00 pp). This pivot towards road transport highlights a growing reliance on domestic or cross-border regional mobility. Meanwhile, collective infrastructure like public transport continues to experience minor fluctuations, failing to break past a 3.3% structural threshold, which points to a critical area for regional decarbonisation and sustainable transit investment.

Table 12. Tourists using different transport modes to reach the destination, Algarve, 2022-2025

Transport Mode	2022	2023	2024	2025
Airplane *(Avião)*	85.80%	84.30%	80.52%	80.47%
Car *(Carro)*	8.80%	13.40%	13.79%	13.80%
Public Transport	2.90%	1.20%	3.26%	2.69%
Other *(Outro)*	1.80%	0.90%	1.96%	2.51%
Unspecified *(NS/NR)*	0.80%	0.20%	0.47%	0.54%

Source: AlgSTO Tourist Survey.

I22 – Passenger traffic on inland waterways

The demand for inland waterway transport and fluvial tourism routes in the Algarve grew steadily between 2022 and 2024, with total regional passenger movements climbing by 15.43% to exceed **2.90 million** annual trips. This volume is overwhelmingly dominated by the *Ria Formosa* beach routes, which alone accounted for 2.78 million passengers in 2024—representing over 96% of the region's total river/estuary transit traffic. While the *Ria Formosa* routes experienced a sharp post-pandemic surge between 2022 and 2023 (+13.72%), traffic began to stabilize in 2024 with a more moderate expansion of 1.80%. Concurrently, the Guadiana River route sustained a slower but highly consistent upward trajectory, expanding by 7.87% over the two-year window to reach 115,320 passengers.

When cross-referenced with the region's overall stabilizing hotel bed capacity profile (which dipped relative to population), the continuous growth in waterway transit highlights the unrelenting physical pressure placed on fragile natural ecosystems. The massive concentration of nearly 2.8 million transits in the *Ria Formosa* area emphasises how heavily the Algarve's sun-and-sea model relies on marine-based dispersal, underscoring the vital need for sustainable maritime fleet management and ecosystem protection frameworks.

Table 13. Passenger traffic on inland waterways, Algarve, 2022-2024

	2022	2023	2024
Praias - Ria Formosa	2 408 075	2 738 518	2 787 779
Rio Guadiana	106 909	111 642	115 320

Source: INE (https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0000896&contexto=bd&selTab=tab2)

I23 – Airport Carbon Footprint

Faro Airport (FAO) occupies a high-impact global position, ranking 250th and placing within the top 20% of the world's airports for climate footprint. The latest available data from Airport Tracker (2023) reveal a striking decoupling trend: total flight emissions actually contracted by 7.6% (falling to **0.73 Mt CO_2**) even though total flight volumes surged by 23.1%. This suggests significant optimization in regional airspace routing, larger aircraft load factors, or more modern fleet deployments by key airlines.

Table 14. Faro Airport Carbon Footprint, 2023.

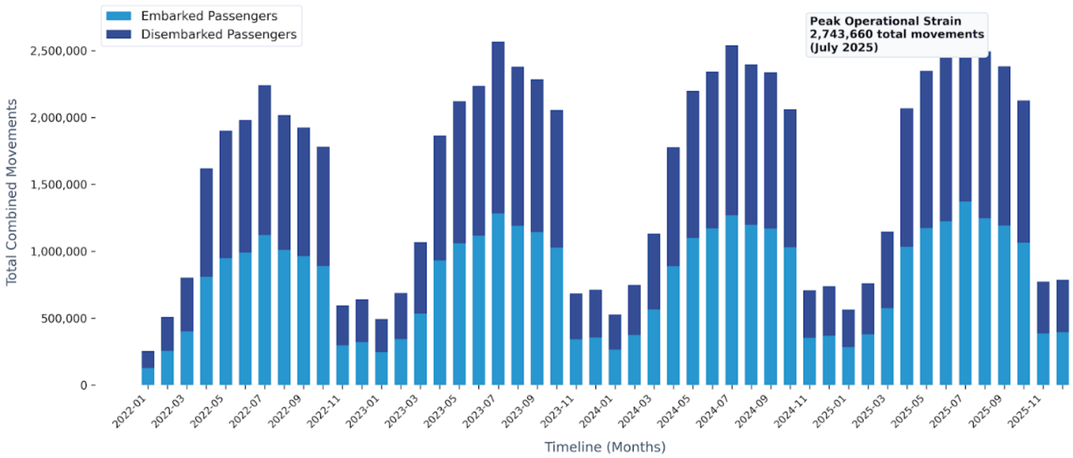
Rank	250th *Top 19.2% of airports*	FAO compared to Global average
Total flight emissions	0.73 Mt CO_2	▼ -7.6%
Total passenger emissions	0.71 Mt CO_2	▲ +2.3%
Total freight emissions	--- Mt CO_2	—
Private jet emissions	0.02 Mt CO_2	▲ +76.9%
Total flights	32,726 flights	▲ +23.1%
Private jet flights	2,642 flights	▲ +70.5%

Source: Data from Airport Tracker (https://airporttracker.org/tracker/airports/fao/)

I24 – Passengers disembarked at Faro Airport

The total passenger movement dataset—combining both embarked and disembarked traffic—highlights an exceptionally symmetrical yet highly volatile seasonal wave structure that defines the operational reality of Faro Airport. Operational strain peaks dramatically during the summer months, with July 2025 recording a combined maximum of **1,371,830** total passenger movements, split evenly between arrivals and departures. This peak represents a massive, tenfold expansion compared to the initial post-pandemic winter trough of 127,166 total movements in January 2022. Even as seasonal volatility causes traffic to contract each winter sharply, the underlying baseline has risen significantly over the four years; the winter floor expanded from 127,166 movements in early 2022 to 282,330 movements by January 2025. This stacked breakdown underscores how Faro Airport acts as a high-velocity, two-way funnel, simultaneously absorbing and returning millions of international visitors who fuel the high-density coastal tourism economies during the peak holiday seasons.

Figure 12. Faro Airport Monthly Total Passenger Movement, 2022-2025



Source: INE
(https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0000862&contexto=bd&selTab=tab2&xlang=en)

3.3. Social Sustainability

Tourism and society are intrinsically interconnected. The social characteristics, local attractions, culture, and community resources of a destination provide the fundamental basis for the evolution, growth, and development of tourism within that area. However, the expansion of tourism activities without effective management frequently results in overcrowding, cultural disruption, and a deterioration in residents' quality of life. Over time, such adverse impacts may contribute to a decline in tourism growth and a reduction in the overall value and sustainability of the destination.

3.3.1. Local Community Satisfaction

I25 – Residents satisfied with tourism

The information for this indicator comes from questionnaires applied to residents. This indicator illustrates the answers of the residents to the statement "Overall, I am satisfied with tourism in my municipality". By observing the progression from 2022 to 2025, we can identify a clear shift in sentiment:

- Continued Erosion of "Agree": The "Agree" segment is likely to continue its decline, potentially dropping toward the 40% threshold.
- Upward Pressure on "Disagree": The "Disagree" segment will likely continue to climb, potentially reaching or exceeding 16%.
- Neutral Baseline: The "Neutral" category will likely remain the anchor of the data, holding steady in the 33–34% range, as it serves as the middle ground between the shifting positive and negative sentiments.
  Consistent Decline: There is a clear downward trend in total positive sentiment, dropping by roughly 2–3% per year across the observed periods.
- Aggregated Impact: If this trajectory holds, the total positive sentiment is expected to move from a majority position (above 50% in 2022) to a minority position (**44.1%** in 2025).

Table 15. Residents satisfied with tourism. Algarve, 2022-2025.

Year	Agree (%)	Strongly Agree (%)	Total Positive Sentiment (%)
2022	45.5%	6.6%	**52.1%**
2023	44.1%	5.7%	**49.8%**
2024	42.1%	4.2%	**46.3%**
2025	40.5%	3.6%	**44.1%**

Source: AlgSTO Residents' Survey. Note: 2025 data are estimated.

I26 – Number of beds available in accommodation establishments per 1,000 residents

The regional tourism capacity, measured by the number of available beds per thousand inhabitants, experienced a minor structural shift across the observed timeline. After reaching a peak concentration of **276.0** beds in 2023, the indicator registered a continuous downward trajectory, contracting to 271.8 in 2024 and further easing to a provisional 269.2 beds per thousand residents in 2025.

Crucially, this steady decline does not signify an absolute shrinkage of the Algarve's hospitality infrastructure—as total declared beds actually ticked upward to an estimated 134,500 units in 2025. Instead, this correction is entirely driven by a demographic dilution effect, where the region's resident population grew at a faster pace (expanding to 499,700 inhabitants by 2025) than new commercial accommodation developments. This trend highlights a stabilizing threshold for official lodging expansions, providing a vital window for regional planners to address structural sustainability and infrastructure load before any further expansion of the destination's bed capacity.

Table 16. Lodging capacity in tourism accommodation establishments, per 1000 inhabitants. Algarve, 2022-2025.

Year	Available Beds per 1,000 Inhabitants	Annual Change
2022	275.6	—
2023	276.0	+0.14%
2024	271.8	-1.52%
2025	269.2*	**-0.96%**

**Provisional*

Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/numero-camas-disponiveis-1000-residentes)

I27 –Tourism Density

The territorial pressure exerted by holidaymakers in the Algarve has intensified steadily, with daily tourism density rising from 10.51 overnights per square kilometre in 2022 to 11.37 in 2024, before peaking at **11.42** in 2025. This continuous expansion reflects an overall growth of 8.66% in spatial occupancy across the timeline. In 2025, the region recorded a massive total of 20.82 million overnight stays distributed across its geographic footprint of 4,997 square kilometres, translating to an average daily concentration of 11.42 visitors staying in accommodation facilities for every single square kilometre of the territory. While the sharpest acceleration occurred between 2022 and 2023 (+6.18%), the consolidation observed in 2025 (+0.44%) indicates that regional tourism volume is stabilizing at a high-pressure plateau. This sustained density highlights ongoing challenges for local infrastructure, reinforcing the critical need to balance peak-season accommodation volumes with resource resilience and public service capacity.

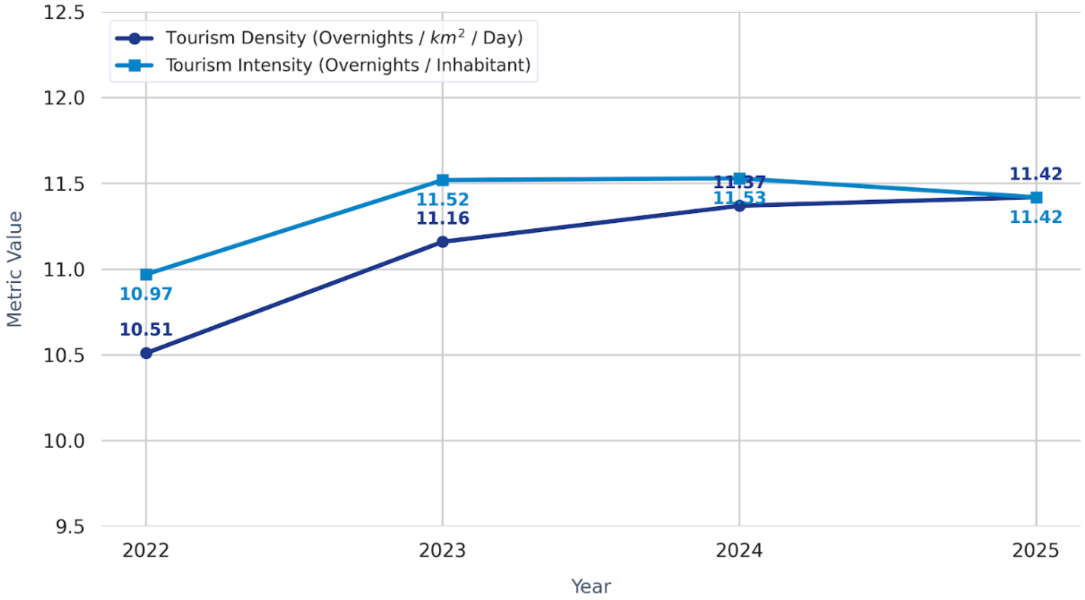
Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/densidade-turistica)

I28 –Tourism Intensity

The demographic pressure exerted by tourism on the local community experienced a steady rise from 10.97 daily overnights per 100 residents in 2022 to a peak plateau of 11.53 in 2024, before experiencing a minor correction to **11.42** in 2025. In 2025, with the resident population expanding to 499,700 inhabitants alongside 20.82 million annual overnight stays, the region hosted an average daily equivalent of 11.42 tourists for every 100 local citizens. The initial surge between 2022 and 2023 (+5.01%) reflects the rapid post-pandemic re-absorption of visitors relative to the local demographic baseline. However, the marginal 0.95% decrease observed in 2025 indicates that resident population growth slightly outpaced overnight stay expansion. Despite this minor easing, the baseline intensity remains exceptionally high, illustrating a persistent structural reality where local public services, housing, and social infrastructure must continuously accommodate a floating population equivalent to more than 11% of the resident base on any given day.

Source: Travel BI (https://travelbi.turismodeportugal.pt/sustentabilidade/intensidade-turistica)

Figure 13. Tourism density and tourism intensity, 2022-2025

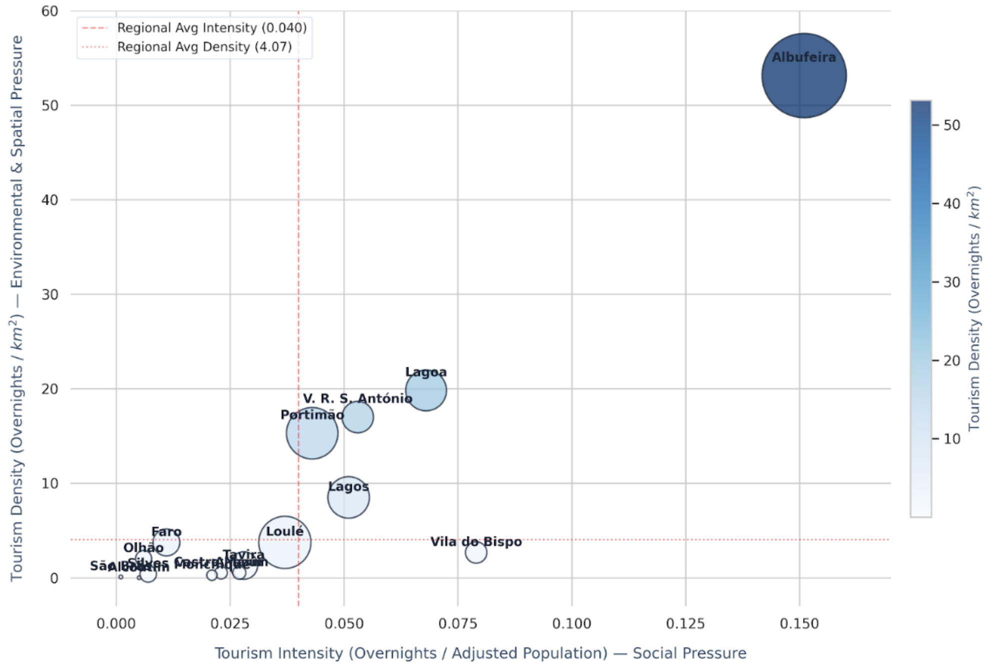


Source: Own elaboration.

Both tourism density and intensity would benefit from more detailed data that distinguishes between areas with different tourism profiles. Based on the developed tourism risk matrix, the municipal distribution of tourism in the Algarve reveals a sharp cleavage. The upper-right quadrant of the chart exposes a critical saturation zone where Albufeira, Lagoa, Portimão, and Lagos face simultaneous pressures: massive volumes of overnight stays concentrated within small territories, generating high environmental and social stress. The case of Albufeira is the most extreme, distancing itself from the rest of the region by recording the most overwhelming density (53.16) and intensity (0.151) indices. Conversely, Loulé serves as a unique case study; despite being the second-largest hub in gross volume, its vast geographical area acts as a natural buffer, diluting the physical footprint of tourism and maintaining its density (3.76) just below the regional average (4.07).

On the other hand, the periphery of the matrix opens the door to crucial strategic interpretations for regional planning. Vila do Bispo represents an isolated social alert: although it lacks the territorial weight of the coastal giants, it records the region's second-highest tourism intensity (0.079), proving that visitor flows have a disproportionate impact on the daily life of its small resident community. At the opposite extreme, the low-pressure cluster in the bottom-left corner, comprising municipalities, such as Alcoutim, Monchique, Silves, and São Brás de Alportel, stands out for the near-total absence of tourism stress. These inland municipalities represent a window of opportunity for sustainable development, perfectly positioned to absorb alternative flows of visitors through niche products, such as walking and cycling networks, without compromising local ecological or social balances.

Figure 14. Algarve tourism risk mapping: density vs. intensity, 2025



Source: Own elaboration.

3.3.2. Accessibility and Inclusion

I29 – Accessible accommodation establishments

The proportion of hotel establishments providing rooms structurally adapted for visitors staying in accommodation facilities with special needs experienced a minor, incremental expansion before entering a steady consolidation phase. The indicator ticked upward from 1.4% in 2022 to 1.5% in 2023, reflecting targeted investments in barrier-free infrastructure and modern architectural retrofitting across the region's hospitality stock. Following this minor increase, the metric plateaued at **1.5%** through 2024 and 2025. While this stable threshold demonstrates that the region has consolidated an essential, regulated baseline for accessible tourism, the low absolute percentage underscores a persistent structural bottleneck.

Data indicates that the vast majority of accommodation capacity remains un-adapted to universal design standards, highlighting a critical strategic gap for the Algarve as it seeks to position itself as a fully inclusive, year-round destination capable of absorbing the rapidly growing senior and reduced-mobility travel segments.

Source: Travel BI (TravelBI by Turismo de Portugal - Alojamento Acessível a Hóspedes com Necessidades Especiais)

I30 – Accessible attractions

The audited network of accessible tourist attractions in the Algarve expanded by 14.3% between 2024 and 2025, growing from 77 to **88** sites. This increase was driven by the Monuments and Culture categories, which added 5 sites each. The sharpest rate of growth occurred in Monuments, which rose by 45.5% (from 11 to 16).

While the year-over-year expansion rate is high, the absolute starting baseline remains low. Across a region rich in heritage, with hundreds of historical, cultural, and outdoor assets, a total inventory of 88 accessible sites indicates that structural accessibility is still in its early stages. Data show rapid progress, but from a significantly constrained starting point.

Table 17. Accessible attractions to people with disabilities, Algarve, 2025

Asset Category	2024	2025	Net Growth	Year-over-Year Change
Monuments	11	16	+5	+45.5%
Cultural Venues	41	46	+5	+12.2%
Leisure Attractions	25	26	+1	+4.0%
Total Accessible Assets	**77**	**88**	**+11**	**+14.3%**

Source: Adapted from TURALL and previous AlgSTO reports (https://www.tur4all.com/)

3.4. Destination Management

Effective destination management is essential to ensuring the sustainable development and long-term success of tourism destinations. By coordinating tourism activities, managing resources efficiently, and balancing the interests of visitors, residents, and other stakeholders, destination management helps to minimise negative social, cultural, and environmental impacts. It also plays a vital role in preserving local heritage, maintaining residents' quality of life, and enhancing visitors' experiences. Through strategic planning and responsible governance, destination management contributes to the competitiveness, resilience, and sustainability of destinations, ensuring that tourism development generates lasting economic and social benefits for local communities.

3.4.1. Governance

I31 – Businesses with voluntary sustainability / CSR certification

The proportion of tourism accommodation establishments holding at least one formal sustainability certification experienced a remarkable upward trend over the four-year period, expanding from 29.0% in 2022 to **39.0%** by 2025. This path reflects a cumulative increase of 10.0 percentage points in the structural adoption of audited eco-labels and green certifications across the sector. The most significant advancement occurred between 2023 and 2024, which witnessed an acute 7.9 percentage point surge, indicating a major wave of properties successfully completing formal audit processes to back their green credentials. Following this rapid acceleration, the indicator entered a consolidation phase in 2025, holding steady with a marginal 0.1 percentage point increase. This plateau suggests that while nearly four out of ten regional venues have now codified their sustainability practices under official frameworks, the market is facing a temporary threshold, highlighting a need for targeted institutional support to help remaining operators clear formal certification barriers.

Table 18. Tourism accommodation establishments holding sustainability certification. Algarve, 2025.

Year	Certified Establishments (%)	Annual Growth (Percentage Points)
2022	29.0%	—
2023	31.0%	+2.0 pp
2024	38.9%	+7.9 pp
2025	39.0%	+0.1 pp

Source: Travel BI (TravelBI by Turismo de Portugal - Estabelecimentos com Certificação)

3.4.2. Visitor Experience

I32 – Tourist satisfaction

The destination experience indicators show that visitor sentiment peaked in 2024 before experiencing a downturn in 2025. Overall Destination Satisfaction fell by 4.73 percentage points in 2025, dropping from its historical high of 84.3% down to **79.57%**.

I33 – Tourists perceived quality experience

Similarly, Positive Perceived Quality dropped by 6.00 percentage points, falling from 84.8% in 2024 down to **78.80%** in 2025. When cross-referenced with the region's record-high tourism density and intense demographic pressure, this simultaneous contraction indicates a potential over-tourism feedback loop. The structural saturation of local infrastructure, crowded attractions, and strained services in 2025 may have eroded the baseline quality of the visitor experience, reversing the positive satisfaction gains achieved during the 2022–2024 recovery period.

I34 – Experience indicators: recommendation intention

The destination loyalty indicators show contrasting trends in 2025, revealing a widening gap between immediate advocacy and long-term retention.

The Intention to Recommend the Algarve dropped to its lowest level in four years, settling at **93.7%** in 2025. This downward shift aligns with the contraction observed in overall satisfaction and perceived quality, proving that immediate visitor frustration with destination pressure negatively impacts their willingness to promote the region to friends and family.

I35 – Experience indicators: intention to revisit

Conversely, the Intention to Revisit within 5 Years surged to a peak of **90.0%**, a 6.20 percentage point increase from 2024. This decoupling indicates that while structural pressure and overcrowding erode the immediate vacation experience (suppressing recommendations), the Algarve's long-term retention power remains highly resilient. The core customer base—likely driven by habitual return visitors, property owners, and established brand loyalty—maintains a strong commitment to return to the region despite the visible peak-season strains.

Table 19. Core tourist experience indicators. Algarve.

Core Experience Indicator	2022	2023	2024	2025
Overall Destination Satisfaction (%)	82.3%	80.2%	84.3%	**79.57%**
Positive Perceived Quality (%)	76.8%	81.7%	84.8%	**78.80%**
Intention to Recommend (%)	94.7%	94.0%	95.2%	**93.7%**
Intention to Revisit within 5 Years (%)	86.3%	80.8%	83.8%	**90.0%**

Source: AlgSTO Tourist Survey.

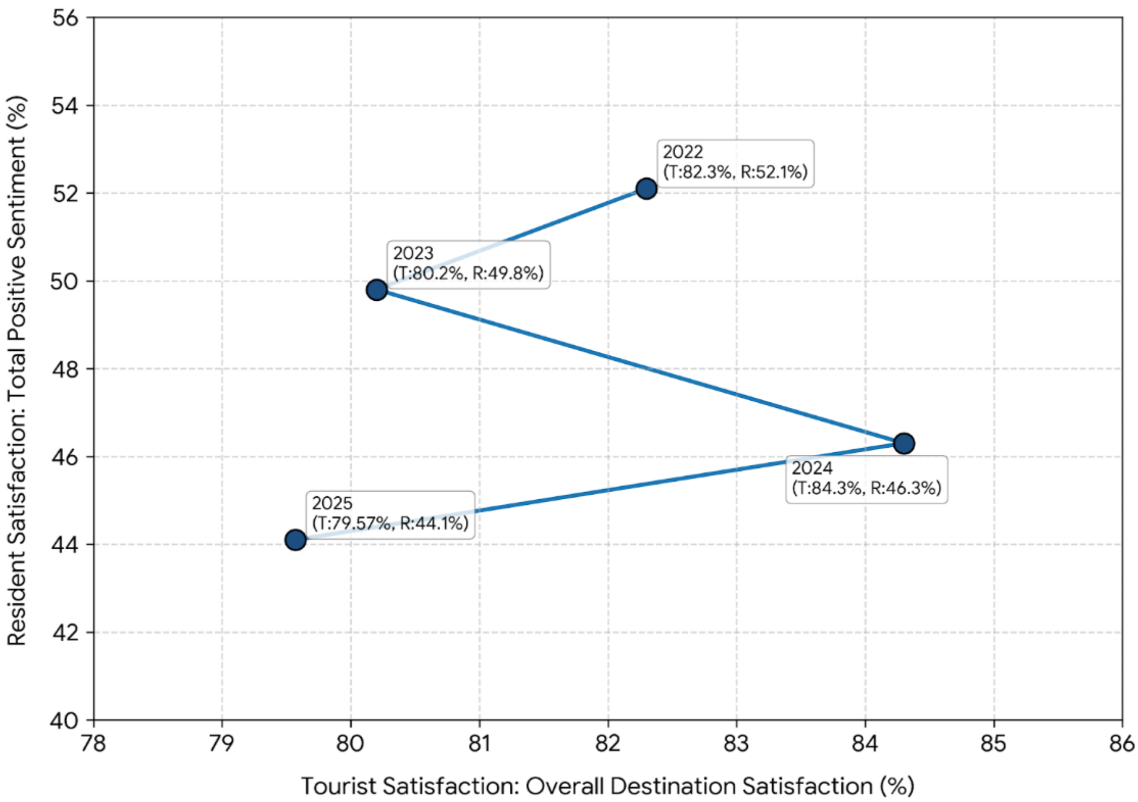
By integrating visitor experience metrics alongside host community sentiment, destination management organisations gain a comprehensive, dual-perspective framework for assessing the holistic health of a tourism ecosystem. This approach shifts evaluation parameters beyond purely economic performance indicators to encompass the socio-cultural dynamics of the region's two most critical stakeholders.

Conjoining these datasets allows to observe the critical friction points where tourism growth intersects with local carrying capacity. Consequently, policy makers can move away from traditional, volume-driven models and transition toward proactive management strategies that preserve destination authenticity and distinctiveness, while simultaneously mitigating local infrastructure strain.

The empirical findings from 2022 to 2025 reveal a striking divergence between these stakeholder experiences, indicative of a classic 'tourism paradox' where visitor satisfaction demonstrates resilience while resident positive sentiment experiences an uninterrupted, linear decline. Whilst tourist satisfaction consistently fluctuated within a highly favourable range between 79.57% and 84.30%, local host approval plummeted from a clear majority of 52.10% in 2022 to a critical low of 44.10% by 2025.

Notably, data from 2024 underscores this systemic imbalance: during the exact period where tourist satisfaction peaked at 84.30%, local resident approval contracted further to 46.30%, suggesting that conditions optimizing the tourist experience directly aggravate the pressures exerted upon the host population. The subsequent contraction observed across both metrics in 2025 indicates that the destination has breached a crucial socio-environmental threshold, wherein local saturation has begun to simultaneously degrade the experiential quality for both residents and visitors alike.

Figure 15. Evolution of Algarve's Satisfaction Dynamics, 2022-2025



Source: Own elaboration based in AlgSTO surveys.

4. Hot topic: Dynamics and Impacts of Short-Term Rentals in the Algarve

The analysis of available evidence up to the end of 2024 points to a profound transformation in the Portuguese tourism accommodation system, driven largely by the rapid expansion of short-term rentals (STR, *Alojamento Local* - AL), particularly following the legislative and fiscal reforms introduced in 2012. In the Algarve, this growth assumed especially significant proportions, making STR one of the principal drivers of the region's recent re-touristification process. The scale of expansion was such that, from 2020 onwards, the total bed capacity in local accommodation exceeded that of traditional hotel establishments in several municipalities, signalling a structural reconfiguration of the regional accommodation market that remains visible to this day.

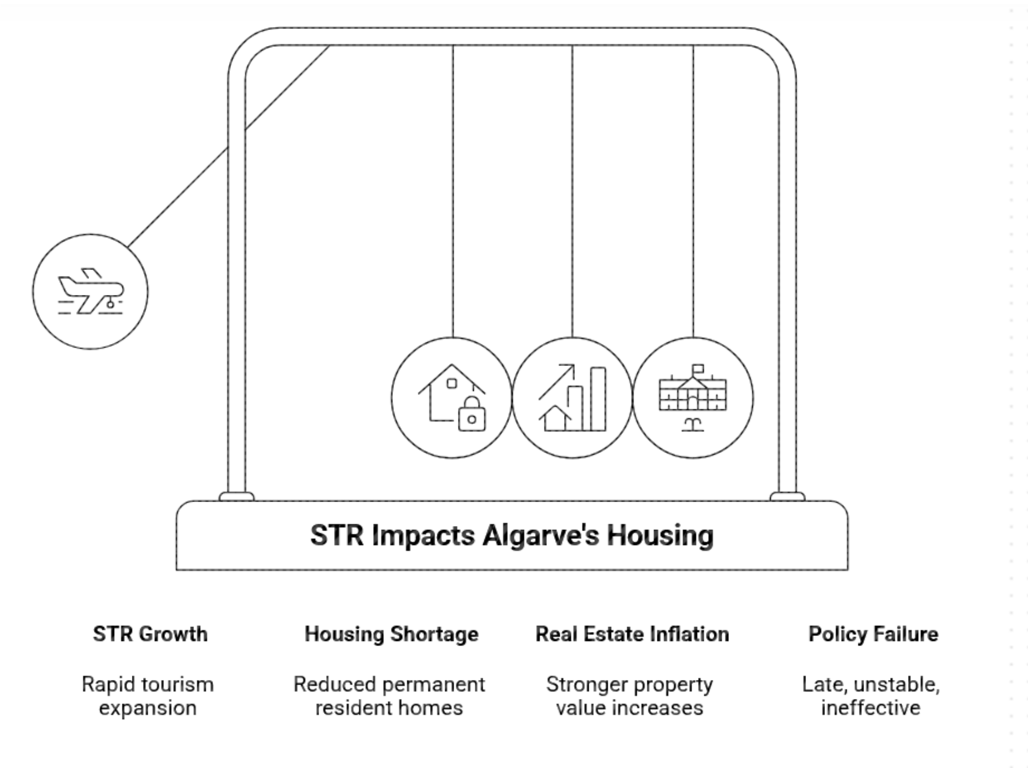
By 31 December 2025, 45,467 STR units were officially registered in the Algarve, representing approximately **35.7%** of the national supply. This confirms the region's decisive weight within Portugal's STR sector. Installed capacity was equally substantial, totalling 164,399 beds, or around **33.3%** of the national total, underlining the relevance of this segment in meeting tourism demand and consolidating the Algarve as one of the country's leading destinations. This capacity suggests that the actual number of visitors staying in accommodation facilities is underestimated and could realistically approach 35 million overnight stays in 2025.

The territorial distribution of AL, however, reveals a strong spatial concentration associated with areas of higher tourism attractiveness and marked specialisation in sun-and-sea tourism. At municipal level, Albufeira stands out with 10,191 registrations (22.3%), followed by Loulé with 6,909 (15.1%) and Portimão with 6,045 (13.2%). This indicates that a substantial share of the regional STR stock is concentrated in a limited number of municipalities, reinforcing their centrality within the Algarve tourism system. Nevertheless, the phenomenon is not confined to major coastal centres. Approximately 34% of STR units in the Algarve are in rural areas, and 22% of this rural stock is situated in low-density territories, equivalent to roughly 7% of total regional STR supply. This suggests an ongoing extension of touristification processes into the Algarve hinterland and into territories historically less exposed to tourism pressure. Within these lower-density areas, spatial appropriation is also selective, with around 90% of STR concentrated in only three municipalities: Aljezur, Castro Marim, and Vila do Bispo.

At parish level, this concentration becomes even more evident. The parish of Albufeira e Olhos de Água leads with 8,703 units (19.1%), followed by Quarteira with 4,671 (10.2%) and Portimão parish with 4,344 (9.5%). Taken together, these figures demonstrate that Algarve STR occupies a central position within the national tourism system, not only because of its total number of units and beds, but also because of its strong polarisation in already consolidated coastal destinations.

However, despite the clear contribution of STR to regional competitiveness and tourism performance, the social and territorial consequences of this rapid expansion have become increasingly evident. The diversion of housing stock—particularly apartments and villas—towards short-term tourist use has significantly reduced the availability of dwellings for permanent residents, contributing to strong real estate inflation and worsening access to housing. In 2024, average property sale values in the Algarve were around €400,000, while monthly rents reached approximately €1,300. The intensity of the phenomenon is especially pronounced when compared with the national context: whereas STR in apartment and villa categories represents around 1.8% of Portugal's housing stock, in the Algarve it accounts for approximately 10.7%.

Figure 16. Challenges for Algarve's STR



Source: Own elaboration.

Against this backdrop of territorially unbalanced and socially problematic development, public policy responses at both local and national levels have generally been late, unstable, and insufficiently effective in containing the trend or mitigating its impacts. Consequently, there is an urgent need to strengthen STR regulation, improve the quality and granularity of statistical data, and define development strategies that are more territorially sustainable and socially equitable. In this sense, while STR has undoubtedly enhanced the Algarve's tourism competitiveness, its future legitimacy will depend increasingly on the capacity to reconcile tourism growth with housing affordability, territorial cohesion, and long-term sustainability. The AlgSTO in 2026 will dedicate special attention to this topic.

5. Looking Forward

The ambition of achieving more sustainable competitiveness and more competitive sustainability remains central to the Algarve's regional vision for 2030, supporting the continued qualification and sustainability of the destination.

In 2026, the Observatory's activities will continue through a new cycle of monitoring and stakeholder engagement. Data collection with residents and tourists is being relaunched, supported by revised survey tools and updated collection methods. A new online entry point for the Observatory will also be created to improve access to information and strengthen communication with stakeholders.

Key areas of analysis will include socio-cultural sustainability, particularly residents' perceptions of tourism, affordability pressures, housing, accessibility and quality of life. Economic monitoring will remain focused on tourism performance, employment, seasonality and the contribution of tourism to regional development. Environmental priorities will include energy use, transport patterns, mobility and the efficient and integrated use of water resources. Visitor satisfaction, loyalty and the overall quality of the tourism experience will also remain central indicators.

At national level, 2026 will also provide an opportunity to review and discuss indicators, contributing to the consolidation of the Portuguese Destination Watch network, stimulated by *Turismo de Portugal*, and to a more aligned framework for monitoring sustainable tourism. This discussion will also act as a catalyst for AlgSTO to propose new ideas regarding the dimensions and specific indicators used internationally by INSTO.

These activities will help decision-makers identify priorities for action and maintain a balance between tourism growth, community well-being, and environmental responsibility, while clarifying the most suitable tourism model for the region's future.

Strengthening Regional Collaboration for the Observatory's Consolidation

The consolidation of the AlgSTO depends on strong and continuous collaboration among regional stakeholders. A meeting of the Advisory Board took place in 26 March 2026 and highlighted the shared commitment of public institutions, academia, business associations, and tourism authorities to jointly shape the Observatory as a strategic tool for the region.

Participants emphasized the importance of aligning perspectives on the future tourism model for the Algarve, including the type of visitor the region aims to attract and the need for evidence-based decision-making. The Observatory is expected to play a central role in this process by providing reliable, timely, and relevant data to support both strategic planning and operational decisions.

Institutional cooperation emerged as a key priority, particularly in improving access to data, expanding analytical capacity, and exploring new thematic areas such as local accommodation and water management. Stakeholders also stressed the value of complementarities with other regional initiatives and knowledge platforms, ensuring that efforts are coordinated rather than duplicated.

Business associations reinforced their willingness to actively contribute, notably through engagement with companies and support in data collection processes. At the same time, public entities highlighted the need to strengthen resources and tools, including the development of more dynamic data visualization solutions such as dashboards.

Overall, the discussion confirmed that the Observatory is not only a data platform, but also a collaborative space where regional actors can jointly reflect on key challenges—such as seasonality, labour conditions, sustainability perceptions, quality of life, and destination positioning—and contribute to more informed and effective tourism policies.

This multi-actor engagement is therefore essential to ensure the Observatory's long-term relevance, credibility, and impact in supporting a more sustainable, competitive and responsible tourism model for the Algarve.

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