3rd INSTO INSIGHTS WEBINAR: MEASUREMENT IN THE FIELD OF WATER MANAGEMENT AT DESTINATION LEVEL

INSIGHTS by INSTO Members

The Alentejo Sustainable Tourism Observatory (ASTO), Portugal

@ Thursday, 23 February 2023 | 12:00 am – 1:00 pm CET | Zoom Session

Jaime Serra (jserra@uevora.pt) and M.ª do Rosário Borges (mrborges@uevora.pt)
Summary

1. Identification of the geographic area of ASTO monitoring – The Alentejo Region NUT II
2. Tourism statistics overview (2022)
3. Brief timeline on the steps taken to plan the monitoring system – context overview
4. PISTA Digital - The technological platform tool to support ASTO
5. PISTA Digital overview
6. Dissemination - Participatory process
7. Water management
8. Further challenges and reflections on progress
1. Identification of the geographic area of ASTO monitoring – The Alentejo Region NUT II

Territory: 31,605km² [34.3%]
Population: 704,934 [7%]

Territorial units division:
- 5 intermunicipal bodies NUT III
- 58 Municipalities
- 299 parish councils

Tourism:
- 1 Regional Tourism Board
- 1 Regional Tourism Promotion Agency

ASTO Mission: To promote knowledge management to monitor the sustainable development of the tourist destination
2. Tourism statistics overview (2022)

Proportion of NUT III regions in relation to Alentejo NUT II in Guests, Overnight Stays, Tourism Establishments and Available Beds

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of guests</th>
<th>YoY (%)</th>
<th>No. of nights</th>
<th>YoY (%)</th>
<th>No. of establishments</th>
<th>YoY (%)</th>
<th>No. of beds</th>
<th>YoY (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alto Alentejo</td>
<td>247,608 (16%)</td>
<td></td>
<td>446,874 (15%)</td>
<td></td>
<td>143 (19%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alentejo Central</td>
<td>519,273 (34%)</td>
<td></td>
<td>918,945 (30%)</td>
<td></td>
<td>169 (23%)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Baixo Alentejo</td>
<td>206,246 (13%)</td>
<td></td>
<td>365,644 (13%)</td>
<td></td>
<td>127 (17%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: Guests, Overnight stays, Available beds, Accommodation Establishments

1 The data regarding the number of accommodation establishments and beds available for each NUT III are the most recent on this date and refer to the year 2021. All other data refer to 2022. Source of all data: INE (2023)
3. Brief timeline on the steps taken to plan the monitoring system – context overview

- **2017**: Official integration of ASTO into the INSTO
- **2018**: ASTO founding members initiated preliminary research in 9 thematic areas suggested by the WTO
- **2019**: Several contacts regarding thematic areas approach (informal approach)
- **2020**: Identification of stakeholders to be part of the LWG
  - Extensive and complex range of actors
  - Role played by ASTO & ERTA/R
  - Funding search / project submission
- **2021**: Formal approach to stakeholders to be part of the RWG 1st phase
  - 1st Annual meeting with ASTO Regional Working Group
- **2022**: 2nd Annual meeting with ASTO Regional Working Group
  - ASTO Financial support & HR
  - Individual approach to each agent
  - Approach by sector, products and administrative scale
  - What facts should be measured?
  - PISTA Digital: Intelligent Sustainable Tourism System for the Alentejo and Ribatejo
    - Economic benefits
    - Seasonality
    - Employment
    - Residents local satisfaction
    - Energy management
    - Water management
    - Waste management
    - Waste Water (Sewage) Management
    - Governance
    - Accessibility
    - Climate Action
- **2023 and beyond**: Ongoing process
  - System in constant growth and adaptation
  - (…)
  - Role played by ERTA/R
  - ASTO Governance Model
4. PISTA Digital – The technological platform tool to support ASTO

What is this?
A support tool for monitoring the sustainable development of the Alentejo and Ribatejo destination.

What does it do?
1. It gathers primary and secondary data from various sources:
   • institutional, technical and scientific data
   • studies and surveys
   • social networks and mobile data
2. It provides information structured by territory cluster and tourist product
3. It produces themed reports on the different dimensions of sustainability
4. PISTA Digital – The technological platform tool to support ASTO

Resources:
- **OBLIVION** Supercomputer

IT Development:
- **DECeSIS**
5. PISTA Digital overview

URL of the video: https://www.youtube.com/watch?v=HcwyfwBkZ1o&t=1s
Over 17 Awareness actions in 14 municipalities of Alentejo region

Over 27 technical meetings

Participation of more than 400 public and private tourism agents

6. Dissemination – Participatory process - November’21 to December’22
• Previous KPI’s identification
• Primary Data
• Participatory process involving accommodation units (NUT II)
• 1\textsuperscript{st} Stage (Pilots) – Accommodation units with Biosphere certification

\textbf{Win/Win process:}

- \textbf{Industry Role} provides monthly data

- \textbf{PISTA Digital Role} transform, analyse and disseminate water consumption in accommodation units (e.g. monthly update dashboards with individual KPI’s for each unit)
### 7. Water management – Selected KPI's (participatory process)

<table>
<thead>
<tr>
<th>Methodological reference</th>
<th>KPI’s Water Consumption</th>
<th>Formula</th>
<th>Measure (unit)</th>
<th>Frequency</th>
<th>Benchmark</th>
<th>Benchmark Alentejo</th>
</tr>
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<tbody>
<tr>
<td>ISO14001; Green Key; WTO</td>
<td>Water consumption per host/night</td>
<td>m3/host</td>
<td>m3</td>
<td>monthly/annual</td>
<td>Hotels: ≤ 0,4 m3/host</td>
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<td></td>
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<td></td>
<td></td>
<td>AL/Hostel: ≤ 0,10 m3/host</td>
<td>0,21 m3/host</td>
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<td>ISO14001; Green Key; WTO</td>
<td>Water consumption per occupied room</td>
<td>m3/room</td>
<td>m3</td>
<td>monthly/annual</td>
<td>≤ 0,24 m3/room</td>
<td>0,32 m3/room</td>
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<td>Green Key: Sustainable hospitality Alliance</td>
<td>Water flow from shower heads</td>
<td>litres/minutes</td>
<td>Lt</td>
<td>monthly/annual</td>
<td>≤ 7 Lt/minute</td>
<td>7,5 Lt/minute</td>
</tr>
<tr>
<td></td>
<td>Water flow (Taps)</td>
<td>litres/minute</td>
<td>Lt</td>
<td>monthly/annual</td>
<td>≤ 4 Lt/minute</td>
<td>2Lt/minute</td>
</tr>
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<td></td>
<td>Water consumption by Covert served</td>
<td>Litres/meals</td>
<td>Lt</td>
<td>Monthly/annual</td>
<td>≤ 9 Lt/covert</td>
<td>----</td>
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<tr>
<td></td>
<td>Laundry</td>
<td>litres/kg</td>
<td>Lt</td>
<td>Monthly/annual</td>
<td>≤ 5 Lt/Kg</td>
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Forms
Acesso dos profissionais aos formulários para recolha de dados nas diversas dimensões do turismo regional.

**Water Management**
Benchmark de excelência:
- Hóteis: ≤ 0,14 m³/hospede
- AL/Hostel: ≤ 0,30 m³/hospede

**Energy Management**
Benchmark de excelência:
- Consumo de energia por m²: ≤ 180 kWh/m²

**Waste Management**
Benchmark de excelência:
- % do total de resíduos produzidos que são reciclados: 84%

**Climate Action**
Benchmark de excelência:
- 1 Iniciativa por ano de compensação carbónica

**Others**
Benchmark de excelência:
- % de detergentes na lavandaria com ecotipos: 80%

**Tourism Barometer**
Ferramenta assente num painel de agentes turísticos, sobre tendências para o turismo na região do Alentejo e Ribatejo

[start questionnaire for each section]
## Questions (monthly)

<table>
<thead>
<tr>
<th>#</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total of available rooms?</td>
</tr>
<tr>
<td>2</td>
<td>Total of occupied rooms?</td>
</tr>
<tr>
<td>3</td>
<td>N.º of guests?</td>
</tr>
<tr>
<td>4</td>
<td>Total volume of water consumption (m³)?</td>
</tr>
</tbody>
</table>

## Results (KPI’s)

- Water consumption guest/night
- Water consumption occup/room
- Water consumption available/room
Connect agents from the entire regional tourism value chain and keep them regularly involved in the ASTO monitoring process, mainly in the PISTA Digital monitoring tool.

Establish relationship with other national (e.g. TravelBI, INE) and international observatories (NSTO Network of Sustainable Tourism Observatories) and projects in the area of science and knowledge to create synergies as far as water KPI’s are concerned.

Cooperation with other entities that also generate data of interest to tourism agents, at international, national, regional and local level.

Streamline the Regional Action Group regularly as far as water monitorization is concerned - Plan the future of the data, information and knowledge management cycle concerning water in different perspectives linked to tourism.

Identify funding/support opportunities to further develop PISTA Digital in this issue.

Ensuring a team of human resources permanently dedicated to the monitoring process
Thank you for your interest.