

# **Observatory of Sustainability of the Algarve Region for Tourism - Overview and outset**

MIGUEL JOSÉ OLIVEIRA, MARIA DE FÁTIMA FARINHA,  
ELISA M. J. DA SILVA, RUI LANÇA  
Civil Engineering Department, Institute of Engineering, University of Algarve,  
Portugal

- TOPIC: The management of tourist destinations based on data  
(La gestión de destinos turísticos basada en datos)

## EXTENDED OVERVIEW

The Observatory of Sustainability of the Algarve Region for Tourism (OBSERVE) is an instrument for monitoring and evaluating the sustainability levels of the region. Its principal main goal is to provide environmental, economic, social-cultural and institutional indicators to support the decision making process for a sustainable growth of the Algarve region.

The result of the project is, among other things, a portal containing a set of indicators that consider the environmental, economic, social-cultural and institutional aspects that allow evaluating and communicating the performance of the region in a sustainable growth perspective. It is an instrument of huge importance for the future as it reflects the reality of the region and support decision-making in the quest for improving environmental quality, social equity, economic efficiency and increasing public awareness and citizen participation.

The access to sustainability indicators, by the public administration, business sector, resident population and tourists, contribute to the decision support at different levels and, in the long time, guarantees a greater sustainability of growth, and influences positively the generation of wealth and employment in the region.

Algarve region covers 6% of Portugal's total area with approximated 5000 km<sup>2</sup>, being bathed by the Atlantic Ocean on West and South. The littoral is a narrow strip near the coast, where the most important urban centres are located, as well as the main regional economic activities related with tourism. The coastline is divided in a large variety of different types of landscapes and beaches. The west coast is dominated by rocky cliffs but at some locations has fluvial systems with dunes and terraces. The southwest coast offers a wide variety of small beaches wrapped by coloured yellow to red cliffs with caves. The southeast coast provides extended beaches of fine sand, systems of islands forming a barrier, small fluvial systems and a marine lagoon with pools and wetlands behind the barrier. The proximity of the Mediterranean Sea greatly influences the Algarve climate, considered as moderate. Due to these characteristics, the Algarve region is a well-known touristic destination, with good perspectives of expansion.

However, tourism has a major impact on natural and built environment as well as on the culture and wellbeing of resident population, and consequently, the sustainable development of the region is a crucial aspect for the future.

To ensure the sustainability on the region, there is a need for policies and plans, developed by the stakeholders, involving service providers, local communities, local citizens and tourists. Its evaluation must be continuously assessed with basis on indicators. The system of indicators defines measures of the existence or severity of current issues and can be used to recognize upcoming situations, identify with anticipation the need for action and provide the means to measure the results of the actions. Indicators are information sets, used on a regular basis to measure changes that are important for the tourism and for the region. The indicators may be used as performance measures that tourists, residents, governmental agencies, tourism operators and in general all the stakeholders use to deal with pressing issues and to manage the sustainable development of the region.

The indicators used by the OBSERVE are selected with basis on criteria of relevance and feasibility, between national and international sustainability development indicators pointed out by organizations such as World Tourism Organization (UNWTO). The data used in the project is from official international and national statistical sources, such as “Instituto Nacional de Estatística” (INE) and Statistical Office of the European Union (Eurostat) and also from governmental agencies such as “Agência Portuguesa do Ambiente” (APA), “Comissão de Coordenação e Desenvolvimento Regional do Algarve” (CCDR), “Aeroportos de Portugal” (ANA), “Infraestruturas de Portugal” (IP), “Entidade Reguladora de Águas e Resíduos” (ERSAR), “Instituto de Conservação da Natureza e Florestas” (ICNF) among others. The demonstration model details not only the system of indicators but also the respective variables and ratios (eg. time evolution, comparative performance against the indicator from other regions, the national indicator or the European indicator). Wherever possible, it is defined for each indicator the target range, corresponding to pre-established regional policies or to national or international reference values.

The principal objectives of the OBSERVE are: i) systematize the information on tourism and sustainable development; ii) implement a set of indicators on sustainability covering relevant issues related to the environment, economy, social and institutional; iii) provide information and assess plans and policies for the sustainable development of the region and the touristic activity; iv) to be a decision support tool; v) provide systematic and reliable technical information; vi) improve the communication between tourists, residents, governmental agencies, touristic operators and all the stakeholders in general; vii) assess the sustainability on the different sectors of the touristic activity; viii) include all the stakeholders on the observation and assessment of the sustainability; ix) provide source of information related to the sustainability of the touristic activity and the promotion of the region as a touristic destination.

The OBSERVE platform will be designed to be dynamic, interactive and do be able to self-update data. The graphical data visualization will be done using interactive technologies in order to provide a faster and intuitive interaction with the user and also to be supported by different operating systems in different devices such as desktops, laptops, tablets and smartphones. There will be several modules designed to interact with the social platforms, like Facebook and Twitter, to manage and send periodic newsletters to the stakeholders, to validate data and detect system faults and also to link to data sources and continuously self-update the indicators.

This two-year project seeks the widest possible scope within the region, promoting a voluntary and non-discriminatory public participation. In this way, citizens, enterprises, associations, central and local administration and the university work together and participate in an active way to provide useful data and knowledge to this scientific area. It is expected that the observatory will contribute to increment the public awareness and citizen participation in the decision making process for the sustainable development in the region of Algarve in short, medium and long term.

This paper synthetizes the general aspects of the project and highlights the results obtained during the activities in progress.