ALTER ECO

PRO-JECT

Alternative tourist strategies to enhance the local sustainable development of tourism by promoting Mediterranean Identity

Comunitat Valenciana Pilot

Alter Eco - Interreg Mediterranean
Project co-financed by the European Regional Development Fund

GENERALITAT VALENCIANA
Conselleria d'Habitatge, Obres Públiques i Vertebració del Territori

IVE INSTITUTO VALENCIANO de la EDIFICACIÓN

Acknowledgements:
Turisme Comunitat Valenciana (TCV), Gandia Council, Tourist Foundation Valencia and La Marina de València have been particularly active in developing this project. With these words we would like to thank these entities and institutions for their involvement and their momentum in launching the different measures undertaken. We trust that the experience and best practices taken from the ALTER ECO Project will serve to improve cooperation and joint, integrated planning in order to foster sustainable and responsible local tourism development.

"We must encourage policy makers and businesses to commit to sustainable development policies and approaches and engage local populations in tourism development to unleash the sector's capacity to lift people out of poverty, promote women's empowerment and gender equality, and protect the environment as a vital tool for building stronger and more resilient communities." ***Ban Ki-moon***

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04

INTRODUCTION
to the ALTER ECO Project

INTRO-
DUCTION

Introduction to the Alter-Eco Project

GENERAL OBJECTIVE

Much of the Mediterranean is threatened by the practices and development of a mass tourism model which, in many cases, has today exceeded its capacity. Thus, the highly attractive coastal city tourist areas are clearly overcome by a direct impact not only on the urban environment, but also on the key elements that define the Mediterranean culture.

The objective of the "Alternative tourist strategies to enhance the local sustainable development of tourism by promoting Mediterranean Identity" (ALTER ECO) Project, approved by the "Interreg MED[1]", Programme, is to improve the balance between attracting tourism as a source of economic growth, and conserving the traditional model of the Mediterranean city as an example of sustainability.

This objective is to be achieved by implementing innovative measures in 6 pilot projects, designed to promote the sustainable and responsible local development of coastal tourism by protecting and promoting the Mediterranean Identity. The 6 pilot programmes will be co-designed and implemented by public and private agents, and include four cities: Málaga, Genoa, Venice and Dubrovnik, and two regions: the Comunitat Valenciana (Region of Valencia) and the South Aegean Region.

ALTER ECO will contribute to improving knowledge and decision-making, including a better use of observation, monitoring and planning in the field of sustainable tourism.

The project will be implemented from 01/11/2016 to 31/07/2019 (33 months), with a budget of €2.3 million and 10 partners from the six participating countries led by the Region of Valencia Ministry of Housing, Public Works and Territorial Structuring[2].

SPECIFIC OBJECTIVES

Based on the above, the ALTER ECO Project is devised around three specific objectives.

• Reduction and improved management of the impact of tourist activities on the environment, and in areas exceeding capacity.

• Improved social sustainability of Mediterranean tourist destinations by reinforcing and promoting the Mediterranean identity.

• Improving cooperation, joint and integrated planning among public and private agents, and management of conflicts of interest, in order to create new business opportunities.

ORGANISATION OF THE ALTER ECO PROJECT

The project organisational structure is divided into three levels, differentiated by their degree of involvement and responsibility for the tasks undertaken. In short, they are:

Line manager (Coordinating partner)
The project is led by the Ministry of Housing, Public Works and Territorial Structuring, through the Valencian Institute of Building (IVE). Valencian Institute of Building – IVE (Spain)

Financial partners
· Málaga City Council (Spain)
· Aristotle University of Thessaloniki – AUTH (Greece)
· South Aegean Region (Greece)
· Genoa City Council (Italy)
· Ca' Foscari University of Venice – UNIVE (Italy)
· Observatory on Tourism for Islands Economy – OTIE (Italy)
· Dubrovnik City (Croatia)
· Lanarca and Famagusta District Development Agency – ANETEL (Cyprus)
· European City of Culture, Tourism and Development CECTD (France)

[1] Interreg MED is a European transnational cooperation programme for the Mediterranean adopted by the European Commission and co-funded by the European Regional Development Fund. It covers 57 regions in 13 European countries (including 3 pre-EU accession countries) from Portugal to Cyprus. For more information: https://interreg-med.eu/

[2] For more information: https://alter-eco.interreg-med.eu/

Associated partners[3] in the ALTER-ECO Project

· Generalitat Valenciana: Dirección General de Vivienda, Rehabilitación y Regeneración Urbana (Spain)
· Universitat Politècnica de València: Departamento de Urbanismo (Spain)
· Agència Valenciana del Turisme - Generalitat Valenciana
· Valencia Tourism Foundation
· Port of Málaga (Spain)
· CAT MED Platform for Sustainable Urban Models (Spain)
· Exceltur (Spain)
· Fundación Instituto Portuario de Estudios y Cooperación de la Comunidad Valenciana (Spain)
· Association of Tourist Offices of Rhodes (Greece)
· City of Thessaloniki (Greece)
· Macedonia-Thrace Travel Agencies Association (Greece)
· Edinburgh World Heritage (United Kingdom)
· Regione Emilia Romagna (Italy)
· Sicilian UNESCO Heritage Foundation (IT)
· City of Venice (Italy)
· Network of European Regions for a Sustainable and Competitive Tourism (Belgium)
· Commune de Grimaud (France)
· Cyprus Sustainable Tourism Initiative (Cyprus)

LIVING LAB AS A WAY OF MAKING PILOTS MORE DYNAMIC

The project offers the chance to try existing methodologies and tools arising from previous high-impact projects in the field of sustainable tourism in representative Mediterranean cities, used as a LIVING LAB[4], for the purpose of achieving realistic local and regional tourism strategies that can be transferred to the Mediterranean as a whole. ALTER ECO proposes an innovative method to involve the main agents in each pilot, with different profiles, interests and priorities, using "human-centred design" techniques. Project results aim to help politicians make reasoned and integrated decisions for tourism governance and management in the Mediterranean and, at the same time, improve the coordination of actions between public and private agents to apply the strategies proposed in order to create new business opportunities. Therefore, the main goal is to create new products, services and infrastructures adapted to the real needs of Society. Living Labs can improve the innovation process by establishing alliances between companies, citizens and governments that allow users to take part in R&D+i at an early stage.

The key elements of Living Labs are:

1. Active user participation: tourists and city population.
2. Real testing bench.
3. Participation of different agents.
4. A multi-method approach (combination of methods and tools from technology, psychology, sociology, strategic management, engineering, etc.).
5. Co-creation (interaction between different agents).

[3] Associated partners who do not have allocated funding

[4] Term that refers to projects developed in real spaces as a "testing bench", with an experimental environment where users and producers can co-create innovations and collaborate with most of the agents involved.

MEDITERRANEAN IDENTITY[5]

The Leipzig Declaration[6] already refers to the Mediterranean city model as an example of balance between urban consumption and natural resources. The classic Mediterranean city model thus combines these two complementary concepts, making it more accessible as a human habitat, while fostering lower consumption of natural resources: sufficient levels of urban compactness and high complexity in the combination of uses and function[7].

The Mediterranean identity has no single definition; it is the result of multiple readings. We can talk about common characteristics in the culture, tangible and intangible heritage, landscape, and also in geopolitics, economic development and demography, which combine to form the identity and offer the Mediterranean experience in itself.

This project attempts to provide a validated methodological framework to estimate the loss of characteristics inherent to Mediterranean cities caused by mass tourism, analysing possible associated risks, and proposing solutions based on tested best practices.

In this context, the ALTER ECO project aims to test innovative measures in the six pilot areas to protect or promote the Mediterranean identity of cities, as a means of recovering the sustainability of the urban model.

[5] A more complete explanation of this concept can be found in ALTER ECO project deliverable "D3.2.2 Mediterranean identity and embodiment of the traditional symbolic characteristics into the alternative routes", available at https://alter-eco.interreg-med.eu/what-we-achieve/deliverables-database/

[6] The Leipzig Declaration on Global Climate Change dates from 1995; it seeks to refute that there is scientific consensus on the issue of global climate change.

[7] Concepts taken from the "Malaga Charter on Sustainable Urban Models" outcome of the CAT MED project.

CHARACTERISTICS OF THE COMUNITAT VALENCIANA AS A PILOT REGION

The approach of the Comunitat Valenciana pilot under the framework of the ALTER ECO project consisted of providing solutions related to improving sustainability in two of the tourism models most likely to be replicated along the Mediterranean Basin: urban tourism and sun and beach tourism.

To test specific solutions, two representative destinations in the Region were chosen for each of the two models. These are Valencia, as an urban destination for cruise ships, and Gandia, as a primarily sun and beach destination. The Comunitat Valenciana has a total area of 23,255 km2 (representing 4.6% of Spanish territory) and an eminently Mediterranean landscape with 632 km of coastline. It is the fourth most populated autonomous region after Andalusia, Catalonia and Madrid, with a population of over 4,959,968 inhabitants (2016).

The latest study measuring how the tourism sector contributes to GDP[8], indicates that in 2015 this contribution amounted to 13.2% that year (11.1% in Spain), recording an annual increase of around 6% due to the good reception of international demand in the region.

In 2016, the Comunitat Valenciana received over 25 million tourists and 167 million overnight stays, making it the third tourist destination in Spain in terms of domestic and international tourism after Andalusia and Catalonia[9]. The number of international tourists in the Comunitat Valenciana that same year grew by 4.3% to a maximum record, and travel by residents in the region increased by 5.6%.

The number of overnight stays at private accommodation (second homes, rental accommodation, family and friends) is estimated in 120 million, 76.7% of the total, 78.3% of demand resident in Spain and 74.9% of demand resident abroad. Group accommodation (hotels, apartments, campsites and rural accommodation) recorded 42.9 million overnight stays.

[8] Study of the Economic Impact of Tourism in the Comunitat Valenciana in 2015. Exceltur and Generalitat Valenciana.
[9] Data prepared by the Valencia Tourism Agency based on INE: Frontur/Egatur-ETR Familitur.

The city of Gandia

Gandia is a city in the Comunitat Valenciana, to the southeast of the province of Valencia and capital of the Safor region. The municipal district lies at the centre of the Gulf of Valencia and is 60.8 km^2.
A significant aspect of the morphology of Gandia is the existence of two urban areas: the Grau port area and the beach, and the city centre. They lie 3.2 km apart, being on the coast where tourist activity predominates. Thus, the Grau houses the port, the nautical club, most hotels and the second campus of the Universitat Politècnica de València. The city centre, meanwhile, has most of the shopping areas, public offices, symbolic monuments and, therefore, is the venue for most cultural events.

Gandia has a registered population of 74,814, but the floating population is estimated at around 100,000-120-000, making it the 7th most populated city in the Comunitat Valenciana (due to its significant tourist influence in summer). Thus, the recorded population density is estimated at around 1,229.89 inhabitants/km^2. As for tourism, the predominant model in Gandia is "sun and beach" tourism. Tourist activity is concentrated mostly in the months of July and August, with lower occupancy levels in June and September.

The main **weaknesses** of the tourist model in Gandia are[10]:

• One highlight of the Gandia tourist model is the high percentage of accommodation in apartments (the highest in the Comunitat Valenciana). This unique feature is accompanied by low accommodation quality and maintenance, which attracts low economic profile tourism.

• A lack of connections between tourist areas and other parts of the city and the old town, which prevents dissipating tourist pressure and load especially in the beach area.

• The effect of the progressive expulsion of local population as a result of increased housing prices (holiday homes) and the inconveniences of overcrowding due to tourism.

• Deteriorated image of Gandia related to the television programme "*Gandia Shore*".

• Excessive concentration of tourists and tourist activity during the summer period.

• Lack of real data on the influx of tourists and their behaviour, which hinders the design of effective strategies.

The main **strengths** include:

• Comfortable climate for outdoor physical activity throughout the year due to suitable temperatures and relative humidity.

• Gandia beach has excellent physical and functional conditions. Good water quality for swimming.

• Good air connections; excellent train (high speed) and road connections.

• Natural resources of high ecological value, accessible and well-preserved (l'Ahuir beach, Mondúver mountains, Gandia reservoir, Parpalló-Borrell cave, etc.)

The city of Valencia

Valencia, capital of the Comunitat Valenciana, has a registered urban population of 791,632 (permanent residents) and 1,547,559 including the metropolitan area. Valencia has a density of 5,754 inhabitants/km^2.

Tourism is concentrated mostly in the months of July and August in terms of overnight stays and number of travellers, extending to June and September with lower occupancy levels[11].

Tourism has consolidated its position as one of Valencia's main economic activities, receiving over 2 million travellers in 2017 -the highest figure on record in the city-, with an average stay of 2.4 days and primarily from Italy, Holland, United Kingdom, Germany, France and Belgium.

In the city of Valencia, the pilot focuses on "La Marina de Valencia" area, between Las Arenas beach and Valencia Port, less than 5 km from Valencia old town. Its origin lies in a dry dock dating before the 13th century. Since then, it has grown along with the city with the building of shipyards, dikes, sheds and a Modernist architectural legacy; today it is the mirror of the golden era of Valencia exports. Already consolidated as a goods port, more recent history put "La Marina de València" on the world nautical tourism map after the 32nd America's Cup (2007), which was a boost for transforming the northern part of "La Marina de València" by building a dock for mega yachts and a series of buildings to house event participants and employees.

Today, "La Marina de València" is the city's strategic space with most potential: its horizon. With this in mind, Consorci València 2007[12], the entity managing "La Marina de València", has proposed two challenges: turning the Marina into the driving force behind the economic transformation of Valencia, and recovering it as a great public seaside square. This requires opening it, making it accessible, green, inclusive, attractive and welcoming, reconnecting it with the city and making it the heart of the maritime district; the new centre of Valencia.

The main **weaknesses** of the tourist model in Valencia are[13]:

• It lacks a consolidated own brand image.

• Poor leverage of heritage and historic resources offered by the city.

• Some districts of great tourist interest and with emblematic spaces are not well-integrated in the city's tourism offer.

• Valencia is still not a tourist destination with problems of saturation. However, the risk of encountering coexistence problems due to non-compliance with regulations deserves the attention of the city government.

On the other hand, the main **strengths** include:

• Valencia is showing signs of growth as, despite the crisis, the city has maintained or even increased its number of visitors in recent years.

• The city has excellent land connections (motorways, railways, high speed trains) with the domestic market.

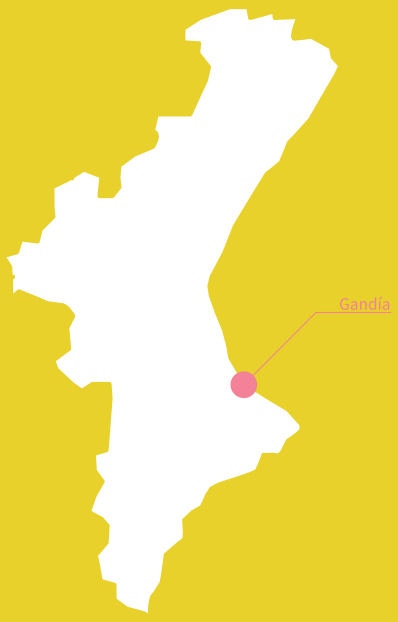
• Valencia is a "port of call" for Mediterranean cruise routes.

[10] A more detailed SWOT analysis of tourism in Gandia, as well as the city's main tourist indicators, can be found in ALTER ECO project deliverable "D3.2.1 Preliminary study for launching pilot activities", available at https://alter-eco.interreg-med.eu/what-we-achieve/deliverables-database/

[11] Tourism 2017 statistics, VLC- Valencia

[12] To promote the candidacy as host of the 32nd America's Cup, the General State Administration, Generalitat Valenciana and Valencia City Council created Consorci València 2007

[13] A more detailed SWOT analysis of tourism in Valencia as well as the city's main tourist indicators, can be found in ALTER ECO project deliverable "D3.2.1 Preliminary study for launching pilot activities", available at https://alter-eco.interreg-med.eu/what-we-achieve/deliverables-database/



Regulatory context

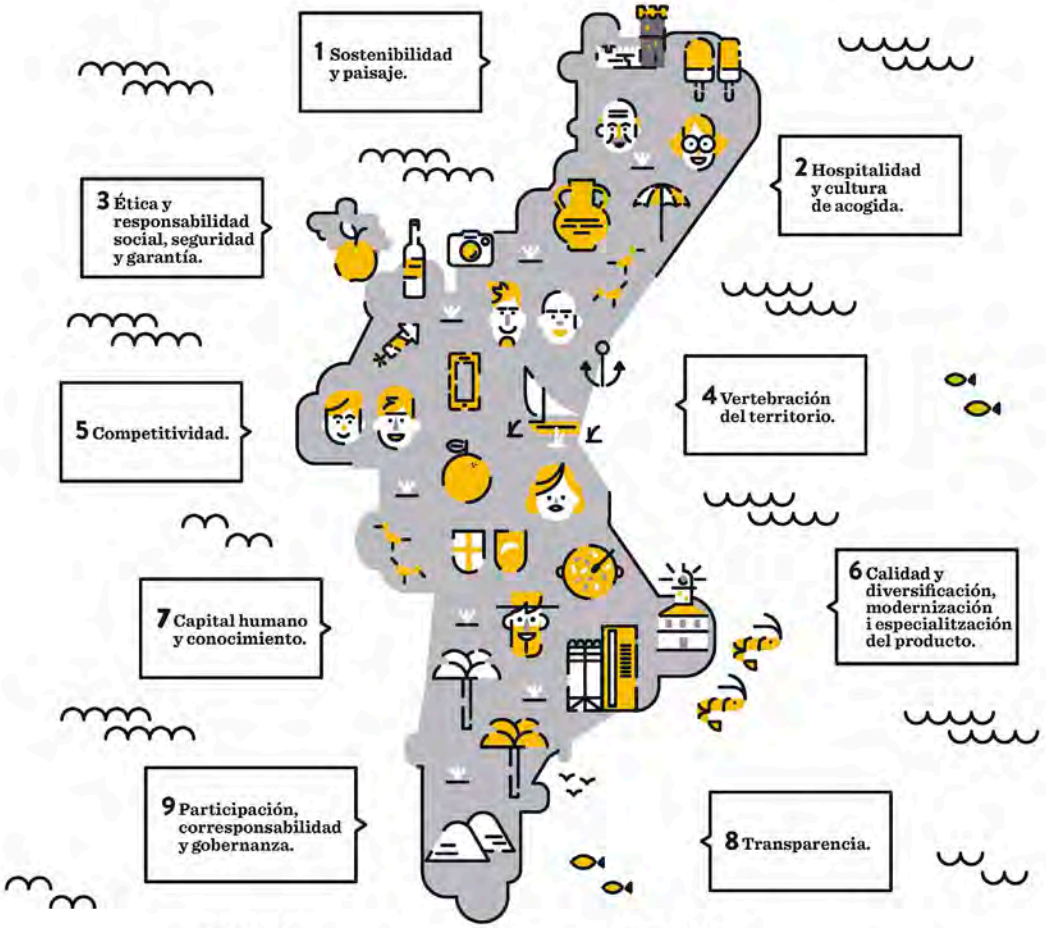
The ALTER ECO Project has been implemented in the Comunitat Valenciana through the various measures applied in Gandia and Valencia at the same time as the approval process for the new regulatory framework for tourist activity in the Comunitat Valenciana, replacing the existing 1998 regulation. This has been an advantage as synergies have been leveraged to deepen and advance certain lines of interest in the Region. Not in vain, the main objective of the new Law 15/2018, of 7 June, on tourism, leisure and hospitality in the Comunitat Valenciana is to:

"...improve, diversify and enhance the tourist offer of the Comunitat Valenciana; to increase its quality, social and economic profitability and competitiveness; to adapt the tourist territory and landscape where the activity is undertaken; to adapt the product to needs of demand; to seek the welfare of residents and tourist service users, and to guarantee the rights of disabled individuals to enjoy accessible and smart tourism, as well as to foster social and environmental sustainability and local development through diversification and ending seasonality, collaboration and cooperation with social agents, public participation, consolidation and growth of occupancy in the tourism sector, and training and fostering research and tourist innovation." (Article 4)

This objective, broken down into various lines of action, is fully in line with those set in the ALTER ECO Project

UNA COMUNITAT EN TURISMO 10

9 valores de una nueva ley



Ley del turismo, el ocio y la hospitalidad.

#lleiturisme

lleideturisme.comunitatvalenciana.com

GENERALITAT VALENCIANA

14

BACK-GROUND

Background

The purpose of the ALTER ECO project is to find a balance between tourist activity, as one of the main economic sources, and conserving the classic model of the Mediterranean city as an example of economic, environmental and social sustainability.

In the Comunitat Valenciana, this objective is to be achieved by implementing innovative measures in the cities of Gandia and Valencia, designed to promote sustainable and responsible local development of coastal tourism by protecting and promoting the Mediterranean Identity).

In this context, two technical reports were prepared prior to launching the measures in Gandia.

Report 01. Analysis of Gandia under the framework of the ALTER ECO project

This technical report was prepared by the Universitat Politècnica de València as it is associated with the city in matters related to tourism. Its purpose was to analyse the current situation of tourism in the city of Gandia, addressing three areas of study[14]:

- Compilation of municipal tourist indicators.
- Study of accommodation on offer, focusing particularly on privately-owned apartments offered as tourist accommodation.
- Analysis of companies working locally and that could be interested in managing privately-owned apartments.

The report suggests the following conclusions:

- The indicator system is a flexible tool that can adapt to the needs of each case for efficient application.
- The need to update data collected in the destination indicator system annually in order to have information with which to assess evolution and trends of the destination.
- Government must encourage the implementation and development of a sustainable tourism indicator system so that companies see it as an opportunity to improve their service quality.
- The various department, institutions, companies, etc. of a destination must understand the indicator system implementation process; this process must be ongoing.

[14] Full report available at www.alter-eco.interreg-med.eu, in the Comunitat Valenciana section

Report 02. Advice for developing the Mediterranean identity in Gandia

This technical report was drafted by researchers from the Universitat de València based on two lines of work[15]:

- Determining the concept of transferrable Mediterranean identity and diagnosis of Gandia in this area.
- Determining territorial resources in Gandia that could constitute Mediterranean identity.

This paper establishes the different key factors that must be included in transferrable Mediterranean identity, according to the following factors: geographic aspects/climate; Mediterranean diet; cultural interaction; source of openness/mobility; poetic sense of life, architecture and landscape; hospitality; family and friends as key groups and a way of life.

An analysis of the image of Gandia projected online and offline shows that the tourist resources of Gandia, both those identified as the city's tourist offer in the focus group and how the market assesses them by analysing tripadvisor and minube, can project the Mediterranean identity. The report also offers specific recommendations for managing Gandia as part of the Mediterranean Identity.

[15] Full report available at: www.alter-eco.interreg-med.eu, in the Comunitat Valenciana section

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MEASURES IMPLEMENTED
under the ALTER ECO project Comunitat Valenciana pilot

MEASU-RES IMPLE-MENTED

Measures implemented under the ALTER ECO project Comunitat Valenciana pilot

The following measures, developed in more detail below in this text, were finally proposed to achieve the ALTER ECO Project objectives in the Comunitat Valenciana pilot:

MEASURES IMPLEMENTED

REGIONAL LEVEL

Improved comfort of tourist accommodation

GANDIA

Monitoring influx of people at Gandia beach. Phase one

Monitoring influx of people at Gandia beach. Phase two

Free WiFi at Gandia beach

Gandia Tour & Play APP

Laminoflexia

VALENCIA

Alternative tourist routes around the city of Valencia

Alter Eco APP

Monitoring “La Marina de València”

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TOURIST ACCOMMODATION

TOURIST ACCOMMO-DATION

Improved comfort of tourist accommodation

METHODOLOGY

In order to improve the comfort of tourist accommodation, a series of tools were designed to provide information on possible improvements to the quality of existing tourist accommodation and, where appropriate, to refurbish them properly, in order to provide accommodation adapted specifically to the needs of the Mediterranean tourism sector. The goal is to improve sector competitiveness and reduce the seasonality of Valencian tourist destinations.

OBJECTIVES

To improve tourist accommodation and apartments, offering easy-access tools to help owners and managers assess possible areas of intervention and, where appropriate, refurbish them properly, in order to provide accommodation adapted specifically to the needs of the Mediterranean tourism sector.

The following objectives are in line with these principles:

- Always consider people when designing residential spaces, giving them priority.
- Focus space design on safety and wellbeing.
- Provide users and sector professionals with sufficient information on accommodation quality and how to improve it.
- Facilitate progress in technology and the development of new ways of living.
- Focus space design and individual behaviours towards protecting the environment, particularly towards energy efficiency.

DESCRIPTION

The participation of all agents involved in the construction sector and the tourism sector was essential to develop this measure. Therefore, various representatives from these sectors participated in reviewing the document and collaborated in different activities related to drafting the guide. The role of Turisme Comunitat Valenciana (TCV), the Regional Government body responsible for promoting and executing tourism policy in the Comunitat Valenciana, was particularly noteworthy due to its involvement in designing and implementing this measure. In this way we could focus on the specific needs of the regional government from the outset, facilitating greater cooperation in disseminating the end results and in how the public administration uses the resources generated.

The scope of study was fundamentally existing housing used as tourist accommodation, group housing built before 1980, many of which have important needs for refurbishment or restoration and which make up a significant part of the tourist accommodation on offer in the Comunitat Valenciana.

Below we describe the series of tools designed to promote improved comfort in tourist accommodation.

Tourist Accommodation Design Guide:

The Tourist Accommodation Design Guide, a document recognised by the Government of Valencia for its building quality[16], offers technicians involved in implementing these improvements a voluntary guide that complements applicable regulations so as to jointly plan the most convenient improvements required in each case under set quality standards.

The guide comprises five chapters based on the following features:

- **Thermal comfort:** proposes improvements designed for the wellbeing of tourist accommodation occupants in terms of thermal conditions.
- **Acoustic comfort:** details optimum conditions in terms of acoustic insulation against outside noises or adjoining sources of noise in the home.
- **Accessible design:** identifies fundamental measures to facilitate access to and use of the building and home spaces by people with reduced mobility, visual or hearing disability.
- **Environmental protection:** regarding sustainable use of natural resources and the importance of environmental information for users.
- **Space quality:** proposes characteristics designed for improving space in the home in terms of floor areas or sizes as well as lighting, ventilation and safety.

[16] RESOLUTION of 29 October 2018, by the Regional Ministry of Housing, Public Works and Territorial Structuring, approving the document recognised for its building quality entitled Tourist Accommodation Design Guide; BES. [2018/10564].

GUÍA DE DISEÑO DE

VIVIENDA TURÍSTICA

bes

BIENESTAR EN ESPACIOS SOSTENIBLES

Interreg Mediterranean

Project co-financed by the European Regional Development Fund

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Each section includes specifications with possible improvements.
The Guide is designed for technicians involved in implementing improvements and offers a tourist accommodation quality assessment system for each of the five sections.

Professionals can also find a standard technical report form for the diagnosis phase, making this task easier.

Self-assessment questionnaire:

Parallel to the guide, a **web APP**, was designed with a short self-assessment questionnaire for the owner or manager to discover the potential for improving tourist accommodation. The owner must answer a few simple questions related to each of the above areas in order to discover the level of comfort, sustainability and accessibility of their home. Upon completing the questionnaire, the user is offered a series of useful tips:

At **www.mejoratuviviendaturistica.com** you can download the guide, template and technical report free of charge, and access the self-assessment questionnaire.

RESULTS

Once the tools described were implemented, they were publicised with the support of Turisme Comunitat Valenciana (TCV) and Gandia Council. Results were scarce in terms of visits, and use and downloading of the materials designed, so a marketing campaign was contracted during the month of October 2018. Despite the short space of time, the results obtained were very positive as data increased substantially (web traffic and registrations), setting the bases to continue to promote the tools. In summary, we obtained[17]:

- 7,152 visits to www.mejoratuviviendaturistica.com
- 579 visits to the self-assessment questionnaire
- 223 registrations for the Guide and Technical Report documents
- 32 registrations for the self-assessment questionnaire
- 154 questionnaires completed

The company responsible for the campaign was Showbranding.

[17] Full report available at: www.alter-eco.interreg-med.eu in the Comunitat Valenciana section

www.twitter.com

Are you an owner, manager or technician and are you going to renovate a tourist dwelling? Find a free guide for the improvement of **#touristhousing** n the **@c_valenciana** on the web **@Fundación_IVE.** Download it for free at **five.es/espacio-ciudad.**

IVE-Inst Edificación
@Fundación_IVE

OBSERVATIONS AND PROBLEMS DETECTED

On one hand, we must highlight the active collaboration of Turisme Comunitat Valenciana (TCV) in obtaining information on the sector as well as reaching our target public, and Gandia Council for providing real case studies through the Association of Rental Apartments of Gandia (ALOGA).

On the other hand, the greatest problem detected was difficulties in reaching tourist accommodation managers and/or owners, for two reasons:

• For understanding the application of these measures as a control system, which could lead to paying a tax, fee, etc. in the future.

• The tourist accommodation sector is used to short-term investments leading to immediate profits. Investing in refurbishments or renovations is understood as an investment with medium/long-term returns to which they are reluctant based on the current business model. However, there have been some signs of a change in mentality that mean we can be optimistic for a progressive change in perspective in the sector.

Budget: €40,000-50,000

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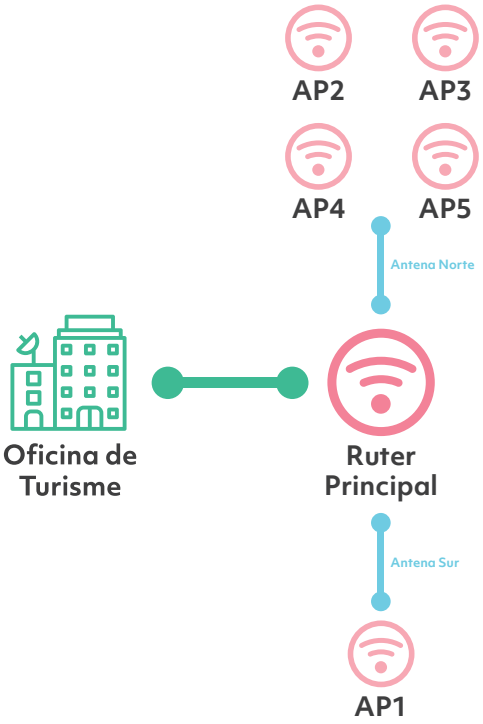
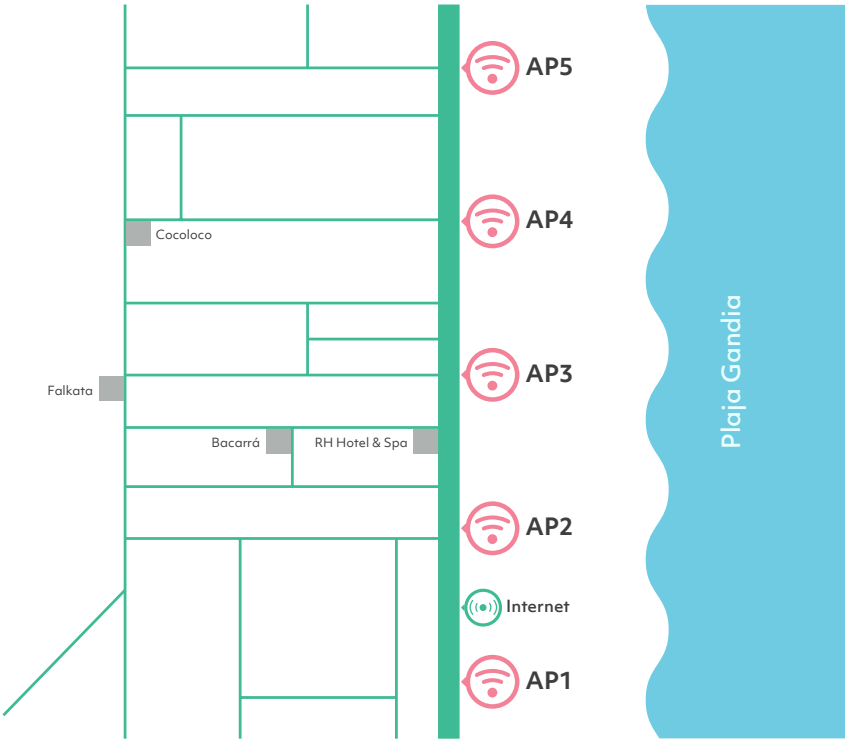
MONITO-RING BEACH GANDIA





Monitoring influx of people at Gandia beach

METHODOLOGY

At the express request of the city of Gandia, over one year we monitored the number of people at five points of Gandia beach. Data were collected on the number of people per hour, day and month at the five points indicated by the Council, as well as data on mobility between these points.

OBJETIU

To obtain an approximate daily study of the number of people along a 2 km stretch of the promenade using their mobile devices or Smartphones.

DESCRIPCIÓ

Based on prior reports, we detected that the main problem in Gandia is seasonality in the beach area: maximum occupancy during the summer months, while it is practically empty throughout the rest of the year, with some businesses closing. With this reality, we proposed monitoring the beach area in order to obtain data on visitors and see which measures could be proposed to end seasonality in tourism, proposing Gandia City Centre as a destination to complement sun and beach tourism.

5Ghz point-to-multipoint radio links with Access Points in sensor mode were used for monitoring. A wireless electronic device was used to capture estimated influx along a 2 km stretch of Gandia promenade[18].

This activity included installing the equipment needed to obtain data, as well as maintaining the equipment, collecting data and translating these data for subsequent analysis.

The project was conducted at Passeig Marítim de Neptú in Gandia, along a 2 km stretch of the beachfront promenade. Five locations were proposed based on the availability of lampposts nearby. These locations were spread evenly to obtain a significant sample along the promenade[19].

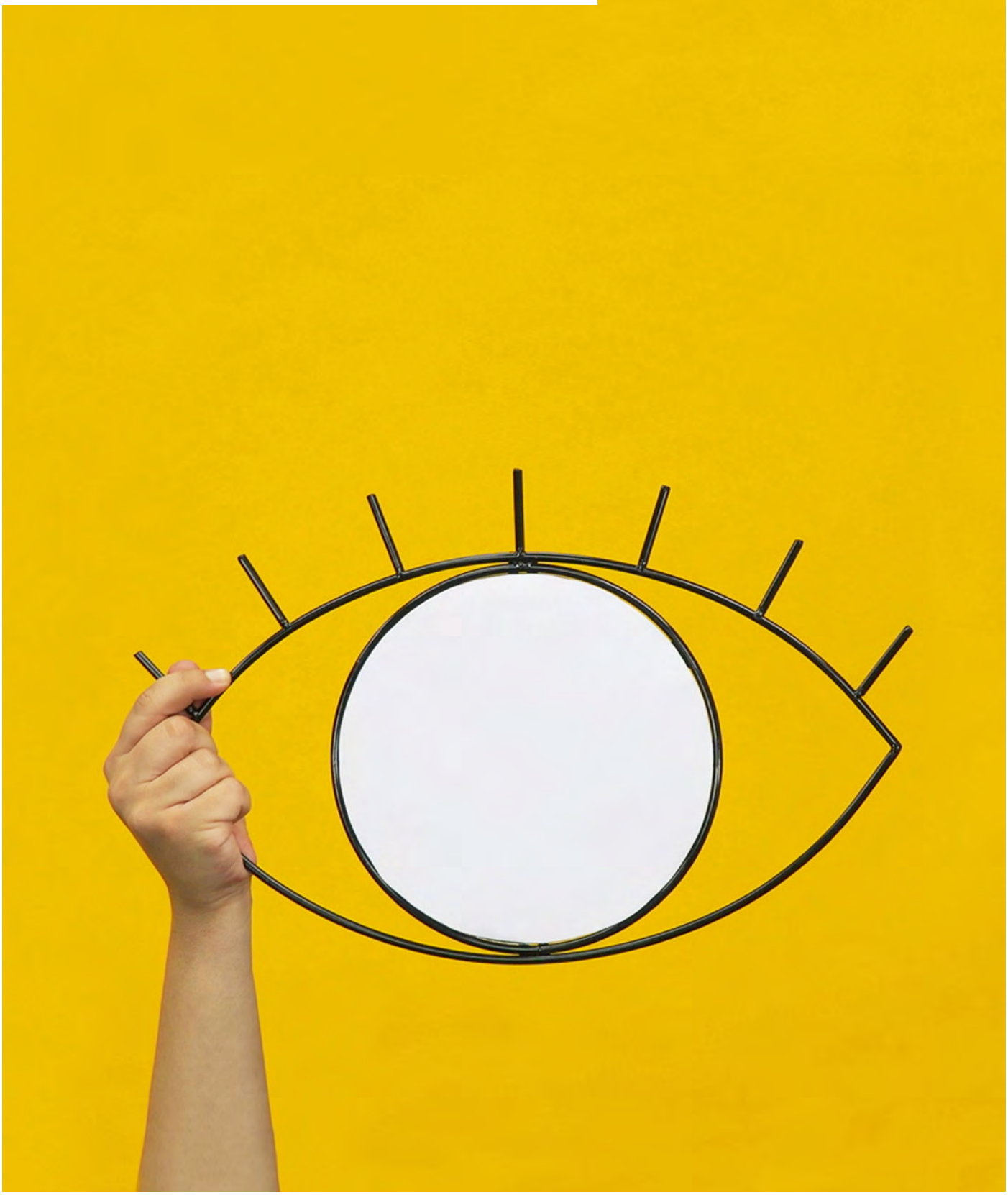
[18] More details on the description and operation of the technical equipment (Phase 1), available at: www.alter-eco.interreg-med.eu, in the Comunitat Valenciana section

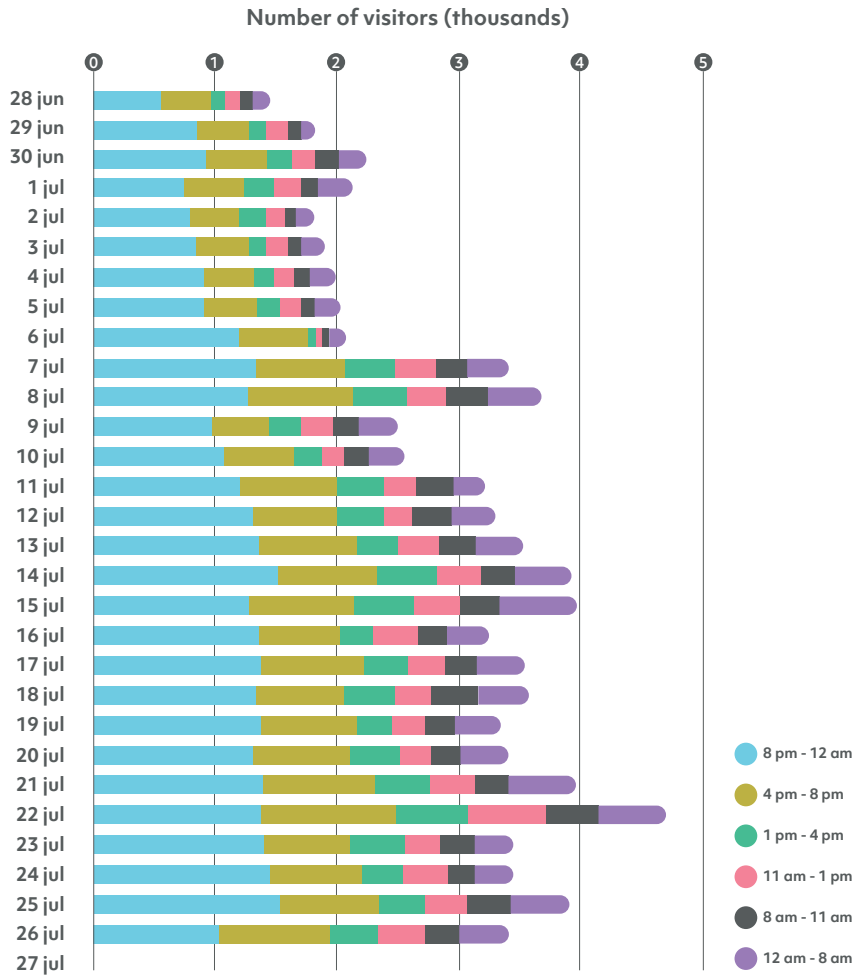
[19] Photos of where each device was placed during Phase 1 available at: www.alter-eco.interreg-med.eu, in the Comunitat Valenciana section

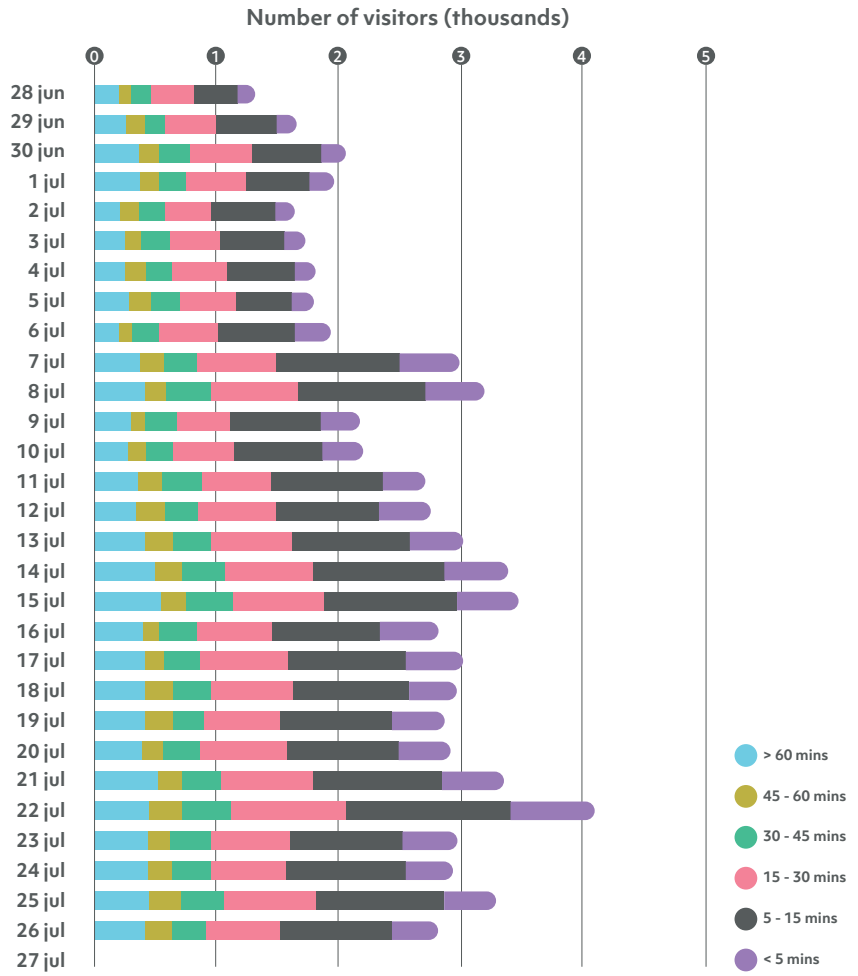
The main company contracted by IVE to provide the service was NETHITS.

Gandia Council also committed to providing access to council property, obtaining the permits necessary for installation and subsequent removal, and also ensuring an Internet output line was providing and electrical equipment was managed to provide power inlets where the monitors were to be installed.

An electrical service company was also required to prepare power outlets at lampposts for carrying electronic signals (Company: Morant Pascual Toni S.L.U) and a company responsible for installing the equipment (Company: Eléctricas Algui S.L.).







Resultados obtenidos desde el 28 de Junio de 2018 al 27 de julio del mismo año.

RESULTS[20]

The devices installed at the points indicated can detect and identify WiFi devices within their range, recording the date and accumulated time they remain in range. Accessing the platform provided by the main contractor offers statistics such as:

• Number of visitors (client WiFi devices) in thousands, detected during different time slots (e.g., from 13:00 to 16:00, from 16:00 to 20:00, etc.), and the sum of unique daily visitors. The vertical line shows influx in thousands at the five points installed.

• Distribution of the number of visitors (client WiFi devices) according to the time (e.g., < 5min, 5-15min, etc.) they were detected during the selected time slot

• Graphs of total and unique devices detected

• Graph of % time stay or comparison of % stay

[20] To consult the full monitoring results of this phase go to: www.alter-eco.interreg-med.eu in the Comunitat Valenciana section

OBSERVATIONS AND PROBLEMS DETECTED

Various faults were detected in the system from the time the equipment was set up:

• Faults caused by reduced Internet service quality, compromising data on specific dates. The equipment installed needs Internet connection to upload the data collected to a cloud server as they have no storage capacity and the option of providing an Internet connection for the system with a 4G server, provided by the Council, was not effective.

• Faults in data collection were recorded quite frequently as of January 2018 due to equipment failures. Normal operation returned once certain components were replaced and data equivalent to approximately two months of measurements were compromised.

• Equipment maintenance was of vital importance in this measure as faults led to a continuous loss of information. These faults were quite frequent and the lack of coordination between the parties involved, as well as the equipment necessary for maintenance (lifting equipment was needed to access the devices) meant that monthly readings were incomplete.

Budget: €5,000-10,000

34

MONITORING
GANDIA BEACH - CENTER

MONITO-RING GANDIA BEACH - CENTER

Monitoring influx of people at Gandia beach

METHODOLOGY

The goal of this measure is monitoring to obtain data on number of people per hour, day and month at the six points indicated by the Council in Gandia city centre, as well as on mobility between these points. Data should also be obtained on the number of people visiting these six points in the centre from the five points established by the Council at Gandia beach.

OBJECTIVE

Obtain measurements on influx and mobility of people between the six points at Gandia city centre and integrating the five sensors already installed at the beach.

DESCRIPTION

Universitat de València (UV) was responsible for the monitoring process. The bid by the UV included installing six sensors in Gandia; analysing the possibility of integrating data from the existing beach project and, if not possible, UV installing another five sensors at the same points where sensors were already installed at the beach; collecting data and translating these data for subsequent analysis.

During the first phase of the project, while installing sensors in the city, it was found to be impossible to integrate data with the sensors installed at Gandia beach. The sensors were access points by Mojo Networks, installed by Nethits. These devices encrypt information on the devices detected using an encryption algorithm from which information could not be obtained. As no basic information on the devices detected by the sensors at the beach was available, five new sensors were installed at the same beach locations, with a total of 11 sensors installed in two phases: the first on 30 May 2018 in Gandia city centre, and another on 6 July 2018 at Gandia beach.

To monitor Gandia city centre and beach, the solution proposed was based on using bluetooth/WiFi sensors[21] capable of identifying the MAC of mobile devices (Smartphones, tablets, hands-free, etc.) with WiFi or bluetooth activated, independently. With this information, the device timestamp, signal intensity and the ID of the device detected, the system is able to provide the basic information requested:

[21] More details on the description and operation of the technical equipment (Phase 2), available at: www.alter-eco.interreg-med.eu, in the Comunitat Valenciana section

The ID of devices detected at each sensor is added daily and by time slots, thus obtaining:

• Number of devices at each point at least once a day.

• Sum of devices in a day, week, month and year at the indicated location.

• Time each device stays at each point. This information can provide the average stay time at each point per day, week, month and year.

• Average number of devices and stay at each point in the area of study for each day or interval (between 7 days and 1 year).

• Mobility between points under the tender and points already installed at the beach (installation of new sensor devices at the beach due to incompatibility with existing sensors).

The devices selected have an internal memory and can support a 4G card for Internet connection. These features solve the problems presented by the technology installed at the beach by Nethits during Phase 1.

The project was therefore conducted at Gandia city centre and Passeig Marítim de Neptú, in Gandia beach. The distribution of elements in Gandia city centre where devices have been installed is shown in the following figure[22]

The sensors installed at the beach have a sector antenna with a range of 250-250 metres, this antenna was pointed at 30º from the promenade to the beach in order to capture devices during the time people spent at the beach and from some people walking along the promenade. They also have an omnidirectional antenna, primarily to capture people walking along the promenade. These two types of antenna aim to cover most of the beach and promenade between point 1 and point 5. The locations proposed on the beachside promenade are therefore the same as in Phase 1.

Data from all sensors were collected on a Universitat de València server.

Gandia Council also committed to installing and maintaining infrastructure to provide a 24-hour power supply for the equipment, as well as the elements belonging to Gandia Council. The Council was also responsible for obtaining the permits necessary for the actions described and for providing an Internet connection for the equipment.

[22] Photos of where each device was placed during Phase 2 available at: www.alter-eco.interreg-med.eu, n the Comunitat Valenciana section

RESULTS[23]

The UV has set up a web server (the URL is http://rapido3.uv.es:8020) to access all the information available. This server allows you consult each of the sections contained in the monthly reports, adapting them to the study needs, enabling comparative studies of the locations. A specific location can also be studied with the zoom feature to view a single day; thus the behaviour of movements can be studied in detail by hour. Thus we can study movements by hour in greater detail. Data are available at 5-minute intervals.

The graphs obtained in the monthly reports are:

• Occupancy by location: These graphs represent daily occupancy for each location by week. On them we can observe morning and afternoon peaks, as well as the different behaviour on weekdays and at the weekend. (Figure 1)

• Total daily occupancy per location: A matrix shows total occupancy per location and day. (Figure 2)

• Stay graphs: These graphs show stay times in absolute figures. Three stay ranges were established: People who stay under 15 minutes, people who stay between 15 minutes and 4 hours and, finally, those who stay more than 4 hours(Figure 3)

• Daily origin - destination matrices: A table is shown with the origin-destination matrix between all study locations. Each box on the table shows two figures: the figure in percentage of the matrix and the absolute figure. This absolute figure is the number of devices detected with the origin and destination established by the matrix pair. (Figure 4)

• Loyalty table: These tables show the general average stay of visitors, in days. In other words, how many days a unique visitor has passed by one of the sensors. Most visitors usually stay between one and three days(Figure 5)

Weekly occupations 6-8-2018 / 12-8-2018 in Mayor

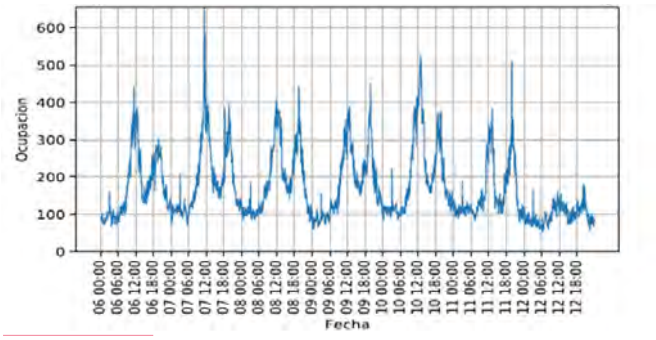


Figure 1

Weekly stays 6-8-2018 / 12-8-2018 in Mayor

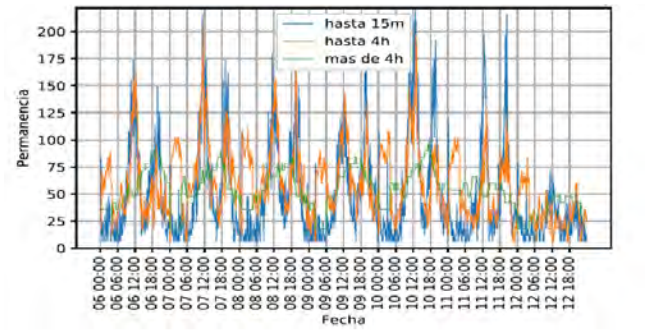


Figure 3

6-8-2018 Origin-Destination Matrix

origen/destino	Marquesa	Pias	Turismo	Mayor	Prat	Palacio	playa 1	playa 2	playa 3	playa 4	playa 5
Marquesa	0% (0)	1% (124)	2% (206)	6% (487)	4% (384)	11% (941)	23% (1844)	15% (1231)	13% (1054)	9% (778)	10% (858)
Pias	3% (142)	0% (0)	6% (284)	9% (399)	0% (30)	2% (97)	22% (977)	17% (771)	14% (628)	11% (496)	11% (508)
Turismo	2% (124)	7% (377)	0% (0)	1% (73)	0% (38)	4% (203)	25% (1218)	16% (794)	16% (779)	11% (558)	12% (573)
Mayor	10% (523)	8% (412)	1% (87)	0% (0)	0% (39)	5% (293)	20% (1037)	15% (784)	14% (709)	11% (571)	11% (573)
Mercado	13% (335)	1% (34)	1% (42)	1% (36)	0% (0)	1% (26)	25% (605)	16% (408)	15% (377)	11% (275)	11% (269)
Palacio	39% (1624)	1% (52)	1% (75)	7% (303)	0% (32)	0% (0)	15% (656)	11% (478)	8% (365)	6% (273)	6% (262)
playa 1	0% (1473)	0% (889)	0% (1081)	0% (888)	0% (602)	0% (592)	0% (0)	38% (56527)	18% (27082)	22% (33093)	17% (26124)
playa 2	0% (1113)	0% (702)	0% (759)	0% (819)	0% (385)	0% (451)	36% (55232)	0% (0)	25% (38372)	20% (30496)	15% (23441)
playa 3	0% (1084)	0% (607)	0% (766)	0% (692)	0% (370)	0% (392)	20% (25844)	26% (32532)	0% (0)	36% (44869)	13% (17309)
playa 4	0% (753)	0% (497)	0% (539)	0% (515)	0% (293)	0% (277)	22% (33400)	21% (32398)	24% (36981)	0% (0)	29% (43490)
playa 5	0% (831)	0% (467)	0% (566)	0% (569)	0% (253)	0% (295)	27% (29596)	20% (22043)	17% (18253)	31% (34083)	0% (0)

Figure 4

[23] Els resultats complets del monitoratge d'aquesta fase, es pot consultar en la pàgina www.alter-eco.interreg-med.eu, en l'apartat de la Comunitat Valenciana

Total daily occupations by location

Día/lugar	Marquesa	Pias	Turismo	Mayor	Prat	Palacio	playa 1	playa 2	playa 3	playa 4	playa 5
2018-08-01	10731	2750	7158	7572	1003	2858	35432	31202	28614	24858	21016
2018-08-02	12315	2860	7500	7660	2247	2686	30144	34348	30064	24858	21016
2018-08-03	11338	2850	8007	7776	2287	2524	38856	36162	35346	20302	24548
2018-08-04	4080	2104	6435	6804	1083	2172	45638	41110	40426	34256	29146
2018-08-05	2712	1112	5058	2010	1473	1246	40310	44298	45638	34668	30146
2018-08-06	4620	2616	7821	7176	1032	2470	41242	35024	35634	29938	25356
2018-08-07	4431	2578	7734	7770	1003	2404	35626	33862	33588	27560	21058
2018-08-08	4665	2750	7812	7788	2122	2407	40208	36024	34546	26760	22736
2018-08-09	4804	2750	7683	7506	2401	2680	38024	36088	34108	30160	24350
2018-08-10	5460	2858	8520	8052	2344	2043	33846	23462	27270	24086	17750
2018-08-11	4731	2054	6702	7650	2178	2272	43600	0	36038	20060	23606
2018-08-12	2806	1104	5238	3226	1654	1407	47418	0	38768	32852	27300
2018-08-13	4707	2614	7686	7662	1968	2407	41150	0	35492	30608	27872
2018-08-14	5202	2844	7881	8010	2271	2874	38800	0	33364	26756	25220
2018-08-15	2947	1280	5217	3606	1750	1420	43508	0	34662	20070	26308
2018-08-16	11739	2988	8073	6304	2686	3070	36622	0	32464	29128	22092
2018-08-17	12552	2986	8079	6466	2350	2919	41566	0	35736	29662	27770
2018-08-18	11395	2122	6585	7902	2419	2527	44224	0	37438	31122	23384
2018-08-19	6688	1128	4944	3324	1810	1450	46132	0	37458	32594	27832
2018-08-20	11028	2846	7653	6028	2080	2758	40420	0	35090	29660	25960
2018-08-21	11548	2604	7329	7630	2226	2701	42814	0	38638	31656	27404
2018-08-22	11260	2604	7338	7452	2310	2617	41542	0	34960	30496	25374
2018-08-23	11610	2766	7230	7740	2301	2670	38166	0	32908	30170	26704
2018-08-24	10134	2758	7674	8418	2401	2754	40022	0	34020	32756	26938
2018-08-25	9607	2016	6150	6666	2220	2257	42362	0	36250	31154	26416
2018-08-26	6205	1174	4896	3174	1707	1408	41144	0	33858	31068	25218
2018-08-27	10728	2720	7548	8142	2121	2562	37684	0	28912	28510	21854
2018-08-28	10369	2704	7521	6238	2041	1795	34906	0	29064	26332	22800
2018-08-29	10846	2674	7161	6298	2187	2671	36038	0	29188	27522	24278
2018-08-30	11593	2964	7363	9270	2604	2986	32838	0	28552	25200	20106
2018-08-31	11508	2886	7617	8634	2554	2691	32902	0	26462	26500	22132

Figure 2

Average stay of visitors in days

Num. días/Mes	2018-05	2018-06	2018-07	2018-08
1	11778	66424	272739	383608
2	4753	15483	59057	86394
3	2025	7540	27657	42651
4	842	4669	17069	26661
5	280	3271	11445	18692
6	176	2384	8238	13362
7	61	1772	6506	10327
8	0	1448	4934	7610
9	0	1196	3676	5247
10	0	1108	2969	4462
11	0	1167	2622	3596
12	0	799	2113	2911
13	0	731	1800	2561
14	0	633	1625	2319
15	0	567	1613	2013
16	0	511	3057	1553
17	0	407	508	1350
18	0	332	406	1225
19	0	333	343	1026
20	0	309	278	969
21	0	266	247	835
22	0	185	246	804
23	0	242	186	653
24	0	124	152	593
25	0	138	143	532
26	0	130	155	531
27	0	104	92	488
28	0	104	95	445
29	0	117	100	505
30	0	255	147	531
31	0	0	362	1945

Figure 5

4

OBSERVATIONS AND PROBLEMS DETECTED

Occasional faults were detected in the system from the time the equipment was set up.

However, despite these occasional failures, this second phase obtained improved results compared to the previous phase as no data were lost during connection failures. The device can store the information collected and the information is uploaded onto the UV server when the connection is restored.

Data quality also improved in this second phase. The data are more reliable and stable, however the way in which UV has presented end data was a great inconvenience as they are not easy to interpret. The company TECH FRIENDLY was contracted to resolve this problem. This company interpreted the data obtained, showing them in a way that is easier to read. This enabled the Council to apply results properly to its policies.

Budget: €20,000-25,000

Sistema 1 Universidad Valencia

Insights obtained from the data: Combinations with other datasets

El sistema de visualización posibilita la combinación de datasets de diferente índole, incluyendo por ejemplo, los relacionados con el clima para analizar la afección del mal tiempo a la fluencia de personas al destino turístico.

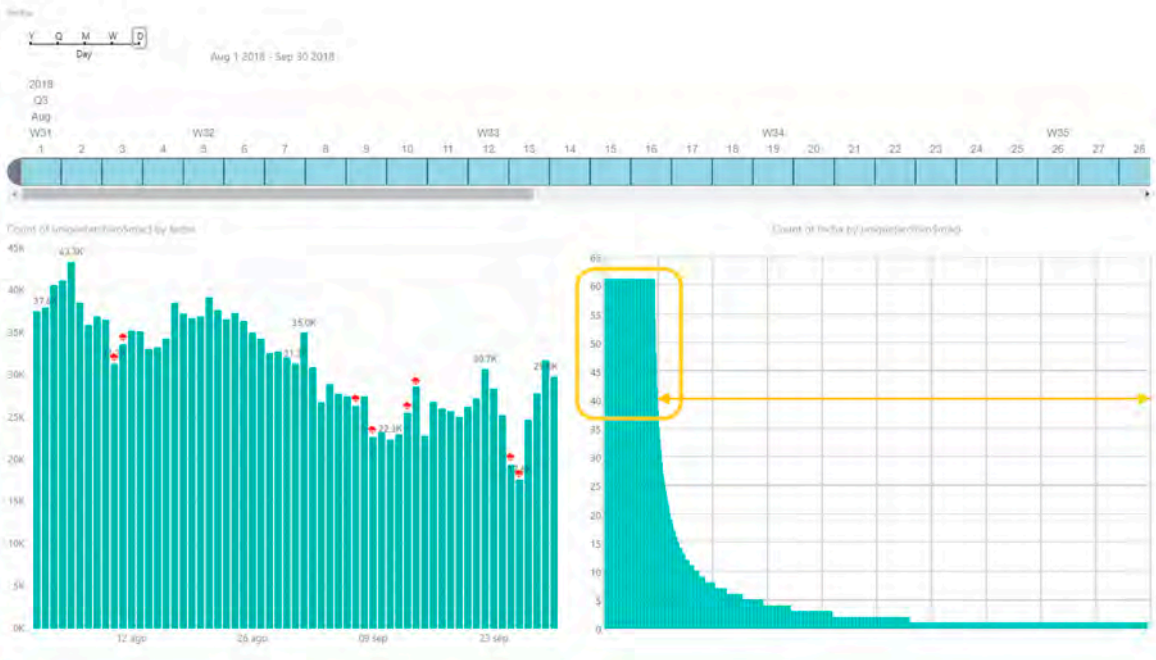
En el gráfico inferior se puede observar la evolución de la afluencia de MACs únicas identificadas por el sistema desde el 1 de agosto de 2018 hasta el 30 de septiembre de 2018, donde se aprecia, en primer lugar, un descenso paulatino de personas a medida que se "sale" del verano.

Por otra parte, el gráfico indica los días de lluvia (según datos de AEMET) que provocan leves caídas de afluencia.

Por otra parte, dentro del sistema demo se ha habilitado una visualización para analizar el porcentaje probable de MACs que se corresponden con personas que residen habitualmente (primera o segunda residencia en ´Gandía).

Estos datos permitirían segmentar los análisis realizados en función de "residentes" o visitantes ocasionales.

Si se toma como hipótesis que un residente es aquella persona que es capturada por el sistema al menos 4 veces por semana, se puede inferir que el 90% de las MACs capturadas se corresponden con visitantes ocasionales.

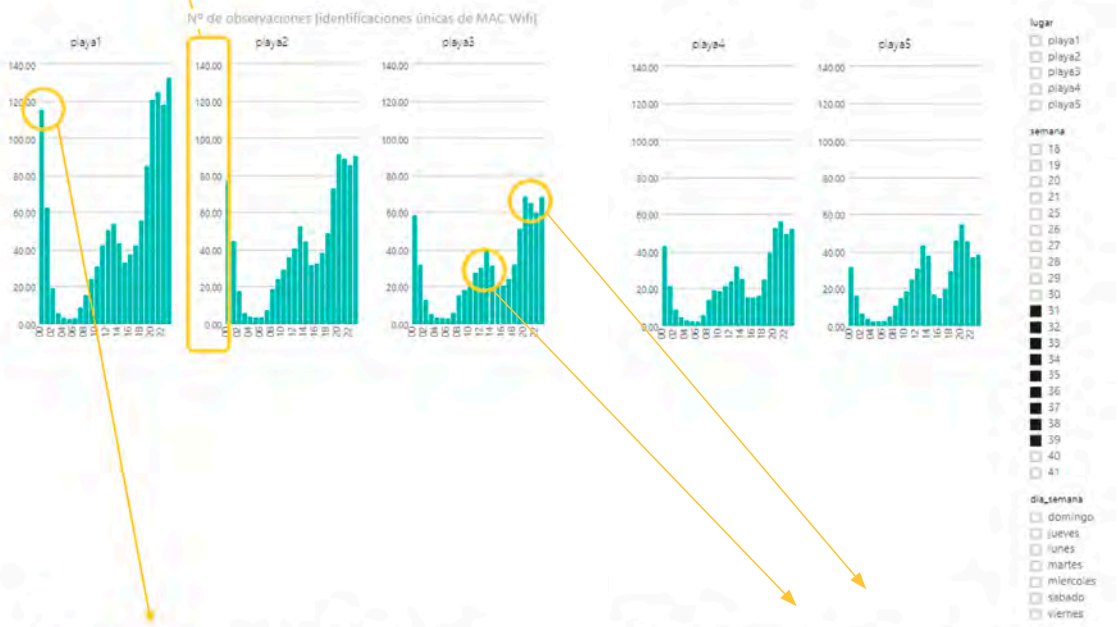


Sistema 2 Nethits

Insights obtained from the data: Overview of unique visits by zone and time span

Se puede observar cómo el número de observaciones promedio de MACs Wifi por tramo horario para las semanas seleccionadas (de la 31 a la 39, por comparación con Sistema 1 de la Universidad de Valencia) es muy bajo.

Asimismo, el número de observaciones aparece decreciente, a medida que nos alejamos de playa1 hacia playa5.



Los picos en el tramo horario de las 00 AM se explican por la existencia de gran cantidad de actividades de ocio nocturno que se organizan durante el verano en la zona de playa1. Los picos en el resto de zonas de playa se deben, probablemente, a personas que se acercan a o parten de playa 1.

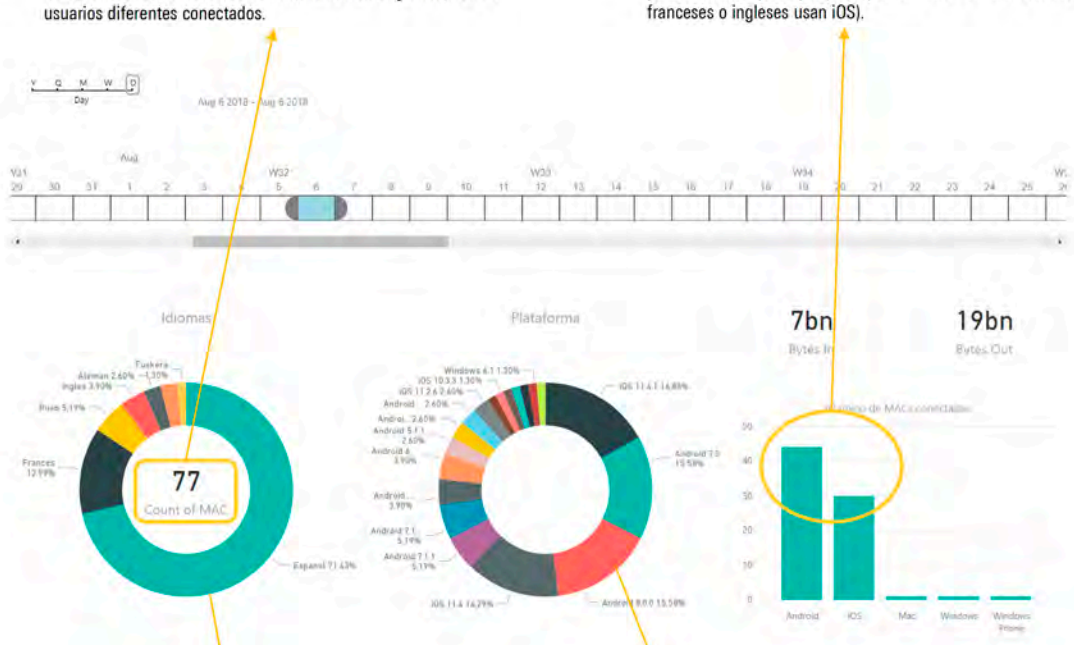
En el gráfico se pueden observar claramente los patrones de mañana y tarde, con picos de presencia de turismo al mediodía (entre las 11:00 y las 14:00), así como a la tarde-noche (entre las 18:00 y las 21:00). Sin embargo, las cifras promedio que aparecen en el gráfico, no son representativas de la realidad.

Sistema 3 Hotspot VisitGandia

Insights obtained from the data: Overview of origin and types of devices used

El número de MACs únicas identificadas por el HotSpot ha sido de casi 1.600 unidades, cifra que se considera baja durante 4 meses y que debe hacer replantear el servicio o la comunicación/marketing del mismo. De hecho el día con más MACs diferentes conectadas es el señalado en el gráfico, con 77 usuarios diferentes conectados.

A su vez, el sistema permite identificar el tipo de dispositivo móvil empleado por los turistas (incluido los sistemas operativos empleados, lo que nos permitiría desarrollar estrategias de desarrollo de apps más adecuadas (filtrando por nacionalidad, se puede inferir, por ejemplo, que el 50% de los ciudadanos franceses o ingleses usan iOS).



Independientemente del número de usuarios conectados, la visualización adecuada de los datos permite inferir la segmentación de turistas por procedencia.

Por otra parte, el sistema permite identificar la versión de sistema operativo utilizado por el usuario, lo que permite estar al día en la evolución de las versiones y, por tanto, en la evolución de las apps ofrecidas a los visitantes, bien sea desde la Administración Pública, bien sea desde la empresa privada.

INSTITUTO VALENCIANO DE LA EDIFICACIÓN

46

FREE
WIFI

FREE
WIFI

Free WIFI at Gandia beach

METHODOLOGY

The Internet connectivity and Hotspot project at Gandia beach was, to a certain extent, a continuation of the measure to monitor influx of people at Gandia beach (Phase 1). Using the infrastructure already deployed under the ALTER ECO project, we included a free WiFi system at these five points to offer visitors to the beach Internet access, enabling them to access municipal tourist information. The system also provides connectivity for the elements installed during the second monitoring phase.

Tourists and residents in Gandia who access the free WiFi service at the beach are shown details on how to reach and visit tourist attractions in the city centre. The purpose of this action is to mobilise sun and beach tourists towards the city centre with a different tourist offer, and promote visits to Gandia at times other than summer.

OBJECTIVE

The objective of the free WiFi points providing limited-capacity Internet is, firstly, to offer beach visitors Internet connection so they can access municipal tourist information. Namely, to provide beach tourists with information on tourist attractions in Gandia city centre as well as transport options to the centre. Secondly, to obtain more data on beach tourists, complementing them with information on mobility and influx with data on their origin.

DESCRIPTION

The project provided connectivity for all the access points on Gandia beach promenade. This was achieved by installing a dedicated radio link with unrestricted data consumption and sufficient band width to provide connection, complying with the band width limitations set by the CNMC (National Commission on Markets and Competition) for this type of installation[24].

The WiFi+hotspots installed at the five points on the promenade are described in the next page. The dedicated radio link was installed next to a new Hotspot router by NETLLAR.

The system has a dual purpose. On one hand, to control visitor's connection to the WiFi system, managing the band width and connection times of each user. On the other, the system's captive portal has an access screen with a homepage image to advertise the cultural offer related to the cultural heritage of the Borja family in Gandia; this then leads to the Gandia tourism website: http://www.visitgandia.com.

Gandia Council and its Tourism Department highlighted this proposal as a response to real demand for extending beach services, making it more attractive and competitive. Repositioning Gandia as a tourist destination lies in its modernisation and tourist innovation. In addition to being a welcoming destination, Gandia has proposed the challenge of making a visitor's stay easier and more comfortable with access to new technologies. Implementing the "Smart City" philosophy in Gandia contributes to setting it apart from other tourist destinations.

[24] Resolution dated 18 June 2010, by the President of the National Telecommunications Market Commission, approving Circular 1/2010 of the National Telecommunications Market Commission, regulating the conditions for using networks and providing electronic communications services by Public Administrations.

RESULTS

Data and statistics obtained from the WiFi points offer monthly information on:

• Number of daily network accesses (Figure 6)
• Daily identification of users' countries of origin (Figure 7)

The information collected by the Gandia beach free WiFi will contribute more effectively planning tourist strategy and improving the experience of visitors and residents in Gandia[25].

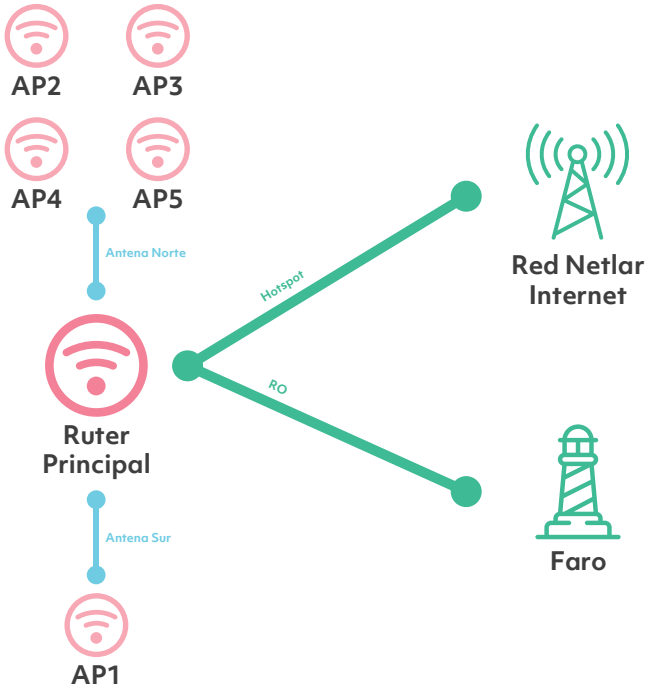
OBSERVATIONS AND PROBLEMS DETECTED

During the time the free WiFi system was operating at Gandia beach there were a series of operating problems. These include:

• Deficiencies in the technical system regarding instability and drops in the connection service. This entailed the repeated presence of the maintenance and repair service company. The lack of service also caused a loss of data and information reporting.

• Restrictions to the free public wireless network (state regulations establish an available network-user connection speed for each user limited to 256Kbps) mean the service is practically useless for many beach tourists, meaning its use was very reduced. This situation led Gandia Council to consider not continuing the free WiFi service due to the negative image of a destination that offers a very limited service for tourists.

Budget: € 5,000



Countries of origin of users (August 2018)

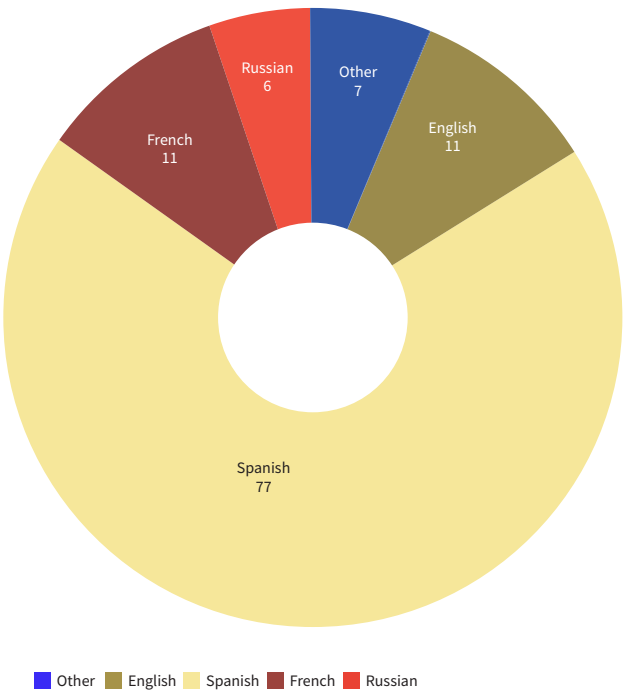


Figure 7

[25] Results of access and countries by month available at: a www.alter-eco.interreg-med.eu in the Comunitat Valenciana section

Hotspot VisitGandia – Daily Accesses

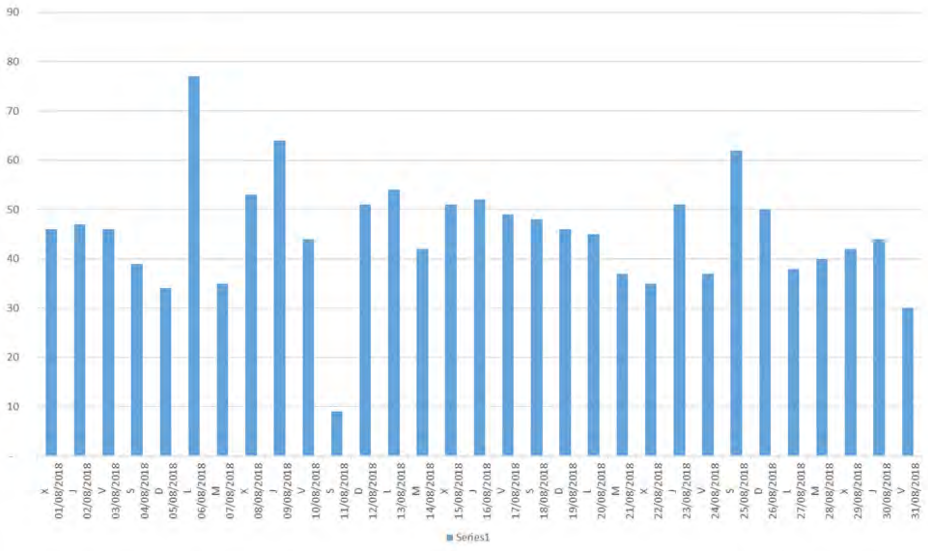


Figure 6 - August 2018

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GANDIA
TOUR&PLAY APP

GANDIA TOUR&PLAY APP

Gandia Tour&Play APP

The Valencian Institute of Building (IVE), on behalf of the Ministry of Housing, Public Works and Territorial Structuring, and Gandia Council collaborated in the development of the Gandia Tour&Play mobile app which applies gamification and augmented reality techniques to guide visitors around three areas in Gandia: the beach, the old town and the l'Ahuir beach natural landscape, to make tourist activity in these areas more dynamic.

OBJECTIVE

The objective of the Gandia Tour&Play APP is to use gamification and augmented reality techniques to take tourists from higher density areas in the summer -the beach- to areas with more natural and cultural attractions -l'Ahuir beach and the old town- with less density but great attractions for visitors.

Launching the ALTER ECO project in Gandia aims to develop the objective of reinforcing local sustainable tourism development, promoting the Mediterranean Identity by implementing alternative tourism strategies co-designed and implemented by public and private agents. Thus, the Gandia Tour&Play APP aims to reinforce local sustainable tourism development by promoting the local identity of Gandia.

DESCRIPTION

Once the ALTER ECO APP measure was developed and implemented in the city of Valencia, the computer application was adapted to the specific demands and needs of Gandia Council Tourism Department. The Gandia Tour&Play app was developed by Play & Go Experience, a collaborator on the Alter Eco project, which at Fitur 2018 won the ITH (Smart Destination Award) for the best application interacting with tourists and citizens for its work developing a similar application in Gandia: "Territori Borja".

The Gandia Tour&Play App geolocates resources and infrastructures in the three selected areas, using game dynamics to encourage visitors discover them. Tourists visit a series of locations where they must complete missions. They can use a 3D map to guide them and locate the missions distributed around the places to visit. (Figure 30)

The gaming experience offers visitors to Gandia:

• A complete guide of points of interest and relevant events.

• They can discover the town in a different way with sustainable tourism.

• A digital guide with a map of the most important locations, agenda of main events and a game.

While the tourist visits the city, the application allows them to:

• Interact with the location

• Have a geolocated agenda of events

• Gamify their visit

• Complete missions with different objectives, and win prizes.

RESULTS

Results from the online store show data on application downloads, enabling us to discover the number of users who use it as a geolocated tourist information tool.

Spatial results provided by the APP based on geolocated information on visitors and the areas visitors can be displayed on maps. Regarding this information, it is relevant to know if using the App has encouraged tourists to visit the centre, or the l'Ahuir beach areas, how many, frequency and days.

OBSERVATIONS AND PROBLEMS DETECTED

One of the main inconveniences of this measure is the lack of definition or accuracy of the data obtained on whether the application has achieved the objective set. Although the Gandia Tour&Play APP has not yet reached its first year and we have no conclusive end results on its effects. The first months of implementation already indicate that it is difficult to establish effective online marketing campaigns for its dissemination. Presence on social networks is an important indicator to understand its dissemination, but does not ensure that the product operates properly nor that it is used by a wide group of tourists. This type of measure requires more time to obtain more reliable data on its real impact.

Budget: €5,000-10,000

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LAMINO-FLEXIA

Promotion of Gandía's cultural offer through the creation of alternative routes

LAMINOFLEXIA is a cultural promotion strategy headquartered in Gandía. It provides mechanisms to generate alternative routes to conventional coastal tourism based on the valuation of a singular type of construction: shell structures. As a method of diversification of supply, it introduces a means of attracting a type of tourists which are way more respectful of the environment.

Catalogue cover
Photographic credits: Joan Roig Bono (2018)

San Nicolás Church. Gandia
Photographic credits: Joan Roig Bono (2018)

OBJECTIVE

The LAMINOFLEXIA initiative broadly pursues two objectives which are articulated at two levels (local and territorial).

Firstly, it aims to diversify the tourism offer by proposing activities that do not exclusively concentrate on summer time or beaches. In the specific case of Gandía, the aim is to promote visits to the churches of San Nicolás or Santa María del Mar, as a complementary cultural activity. In addition, from Gandía – Headquarters of LAMINOFLEXIA – coastal routes to attract both the visit and the study of these unique buildings will be promoted.

Secondly, the introduction of this new and attractive pole aims to revitalize the areas in which the buildings are located. In the case of Gandía, both are in the Grao, an urban area especially segregated by the imbalances introduced by seasonal mass tourism. The introduction of new productive activities in and around the port area will contribute to the dynamism of the tertiary sector. At territorial level, the consolidation of the LAMINOFLEXIA routes will allow to vertebrate the coast from north to south.

DESCRIPTION

In the Valencia Region there has been a singular concentration of constructions based on a very particular type of structures, the so-called shell structures. It is a system made of reinforced concrete, whose main characteristic is that of freeing large spans with very reduced thicknesses. The diversity of uses and forms with which this construction system was used, as well as the spectacular results obtained, make these constructions of great interest.

In line with the Generalitat Valenciana's priority of valuing the built heritage and in collaboration with the Valencia Institute of Building, exhaustive work has been carried out to locate and document the shell structures present in the Valencian territory. Sixteen examples have been selected, three in the province of Castellon, eight in the province of Valencia and five in the province of Alicante, from the fifties until their last manifestations in the present century. From this work arises a catalogue which, together with the corresponding archives of the 16 examples, incorporates 7 scientific articles by specialists in the field.

RESULTS

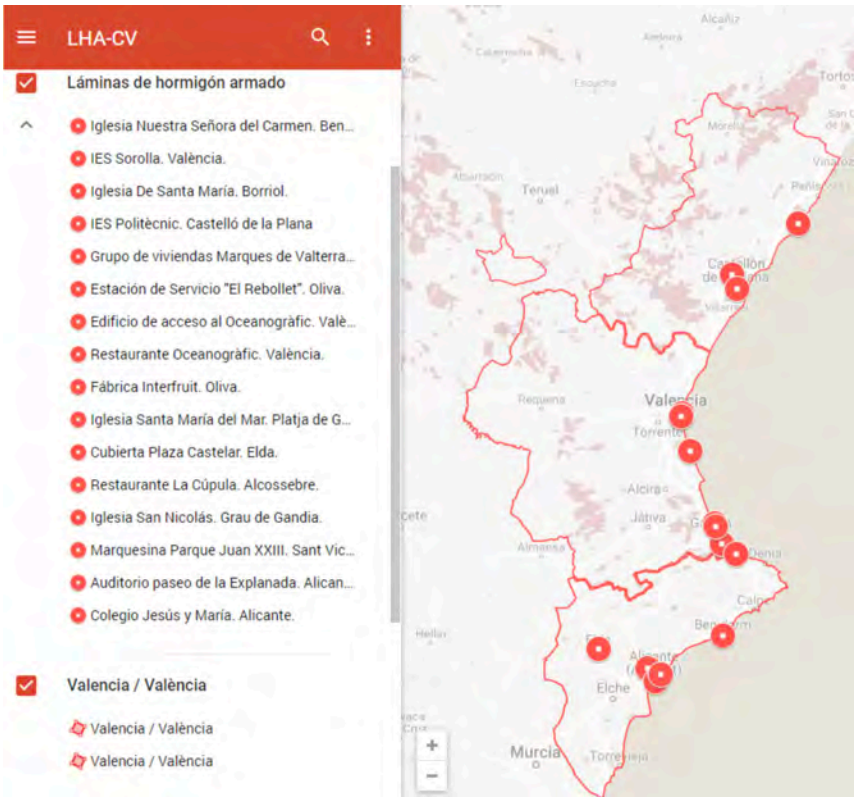
LAMINOFLEXIA's dissemination and study strategy gave rise to an exhibition inaugurated on 11 July 2019 at the Ducal Palace of Gandía, coinciding with the final event of the ALTER ECO project. The exhibition brings together 16 examples of shell structures from the Valencia Region and it is accompanied by a catalogue available for sale.

The impact of this strategy will be conveniently monitored. Based on the current influx of visitors in the selected locations, the increase in visitors attributable to LAMINOFLEXIA will be measured.

OBSERVATION AND PROBLEMS DETECTED

A single initiative such as LAMINOFLEXIA is not enough to reorient the dynamics of mass tourism on beaches. Many other strategies will be necessary to provide alternatives to the conventional offer. The public administration must support and encourage these diversification mechanisms that ultimately result in an improvement in the quality of life of people, both residents and visitors.

The main difficulty is to attract the attention of a public that, in general, has decided to visit Gandía for its beach offer. The introduction of these new products into the offer will also generate some resistance as demand moves away from the usual locations. However, the benefits of deseasonalisation can compensate for this loss. Hence, the convenient articulation of interests between the different agents involved has been a priority in this measure.



Location of the 16 examples of shell structures

Santa Maria del Mar Church. Gandia

Photographic credits: Joan Roig Bono (2018)

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TOURIST ROUTES IN VALENCIA

Alternative tourist routes around the city of Valencia

METHODOLOGY

This measure develops three tourist routes around areas that are currently not the main focus of tourist attraction in the city of Valencia. They aim to:

• Promote neighbourhoods with important tangible and intangible heritage that are not usually the focus of tourists visiting the city, seeking to free-up areas with a greater concentration of tourists.

• Recognise that everyday elements can be attractive.

• Generate quality information (measured, selected, easily understandable, accurate, with aesthetic value, etc.) that contributes to creating the image of a "special way of life in the Mediterranean".

• Enable visitors to be more independent and feel more integrated in the urban context.

• Promote local establishments and products.

• Foster the use of public transport, explaining how different options work, the shared bicycle system and the scale of the city (map-reality distance awareness).

• "Connect" these neighbourhoods with the city centre and other leading tourist locations.

These routes, prepared as guides, invite visitors to (re)discover the city with three different routes proposed by four residents in each of the neighbourhoods with different profiles and concerns.

The Guides can be downloaded free of charge at: www.guiasaltereco.com. They can also be consulted on the project website www.alter-eco.interreg-med.eu, in the Comunitat Valenciana section.

OBJECTIVES

• End seasonality and decentralise activity in the city centre, diversifying the offer and reducing the perceived effect of saturation.

• Showcase other traditional urban scenes where the Mediterranean identity is present in the urban setting, gastronomy, commerce and lifestyle.

• Make tourist spending more dynamic in different areas of the city, avoiding concentration in the same areas.

• Encourage a tourism that is better spread around the city; that integrates locals; that fosters the consumption of local products; that contributes to protecting historical and cultural heritage.

DESCRIPTION

The idea or leitmotiv behind developing the routes is: "The neighbourhood as told by its residents". To achieve this, various **standard characters** were created for each area to explain the story, character, environment, daily life, conflicts, values, spaces of interest, etc., of each neighbourhood. In this way, the neighbourhood story is told from different perspectives in order to:

• Humanise the city.

• Learn/discover based on experiences (own and others).

• Make the "intake" of content more entertaining with a narrative that is easy to follow.

• Reinforce the idea of the diversity of the Mediterranean identity.

Bringing the routes to life

The three routes proposed: El Cabanyal/Canyamelar/El Grau; Ruzafa/Gran Vía; Benimaclet, were created in physical and digital format with a small collection of instalments/illustrated maps, and accompanied by a brief text told in the first person. The material developed targets:

• Local residents and neighbours.

• Tourists. Domestic and international visitors.

• People of different ages and with varied interests (gastronomic, cultural, architectural, festival tourism, etc.).

The original idea and design was by the "Urbanperspective.org" (www.Urbanperspective.org)[26], team, while the texts were created by the IVE.

RESULTS

KANBEI was contracted to publicise the guides for better promotion and greater visibility. The greatest source of traffic was Facebook Ads, followed by mailings and advertising from Google Ads.

In Figure 8 we can see some significant details correlated with the success of the action. The "Evolution of conversations", i.e., users who have reached the download page after leaving their details and receiving an email with a link to the download page, was 1,223 during a 20-day period. Meanwhile, the "Download buttons", i.e., clicks on download buttons per type of guide, were 1,590, spread fairly proportionally between the three routes, as can be seen in Figure 8.

[26] Illustrators: Pablo Lambertos Escudero: El Cabanyal/Canyamelar/ El Grau; David Baán Tóth: Benimaclet; Lucía Blanco Carranza: Ruzafa/Gran Vía

[27] ALTER ECO Tourist Guide Campaign report is available at: www.alter-eco.interreg-med.eu in the Comunitat Valenciana section

EL COLMADO

OBSERVATIONS AND PROBLEMS DETECTED

One of the main problems detected was the difficulty in measuring the effectiveness of the measure. To do this, we decided to develop an APP parallel to the Guides to help count the frequency of visitors to the neighbourhoods. As a result, we can conclude that the APP was not sufficient to control the scope of the measures, however it contributed to other aspects detailed in the next measure.

As a lesson learned for the future, if guide use must be controlled, we must either directly use gamification in printed guides, proposing a series of challenges. For example, questions that can only be answered by visiting the areas (obtaining prizes, prize draws, etc.) or by sticking to the use of new technologies. We could also propose direct questions that would determine the decision to choose a new destination instead of a traditional destination, for example, Did you not go to the centre in order to come here? This type of measure was discarded in the current proposal, as it requires excessive management in relation to available budget.

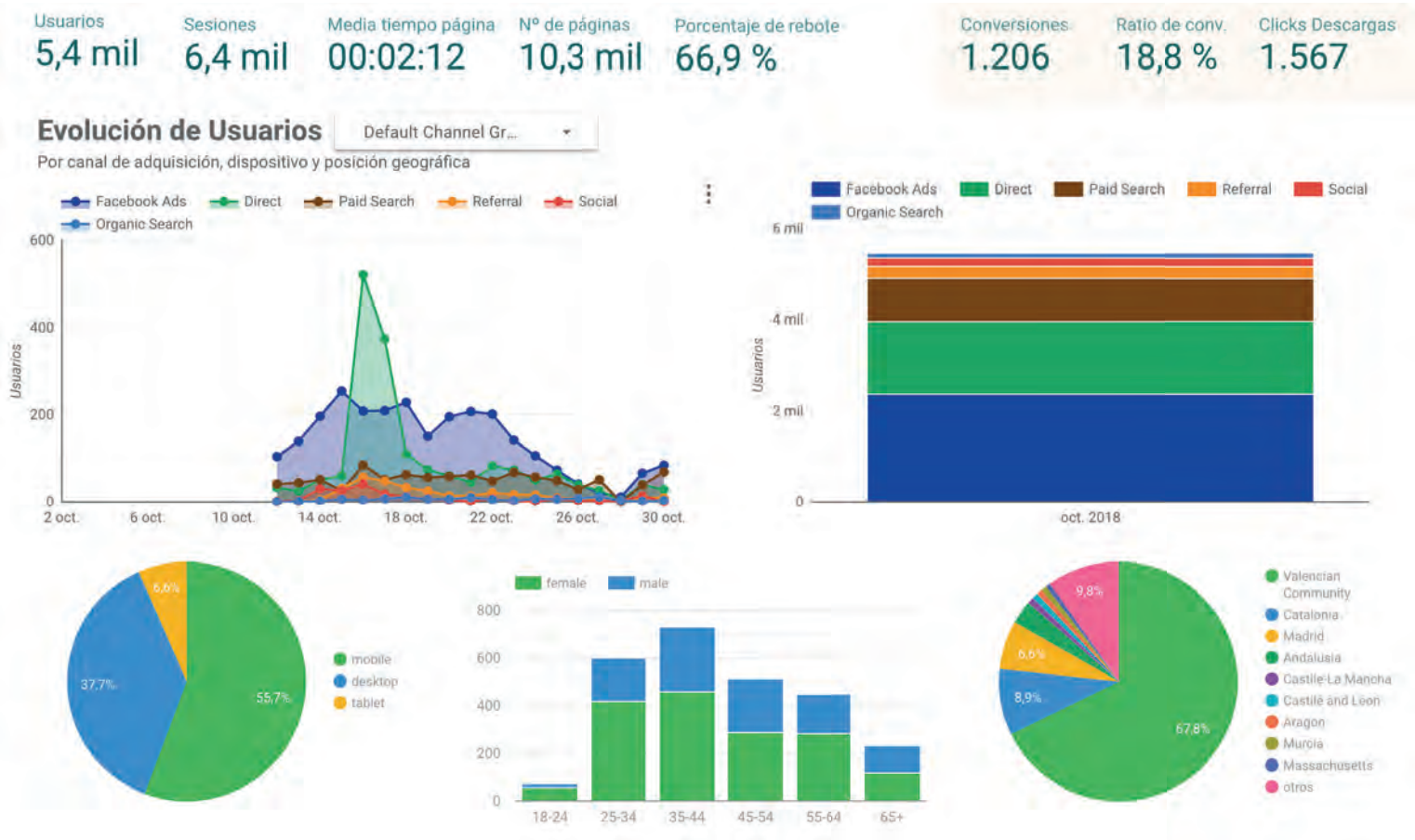

Figura 8

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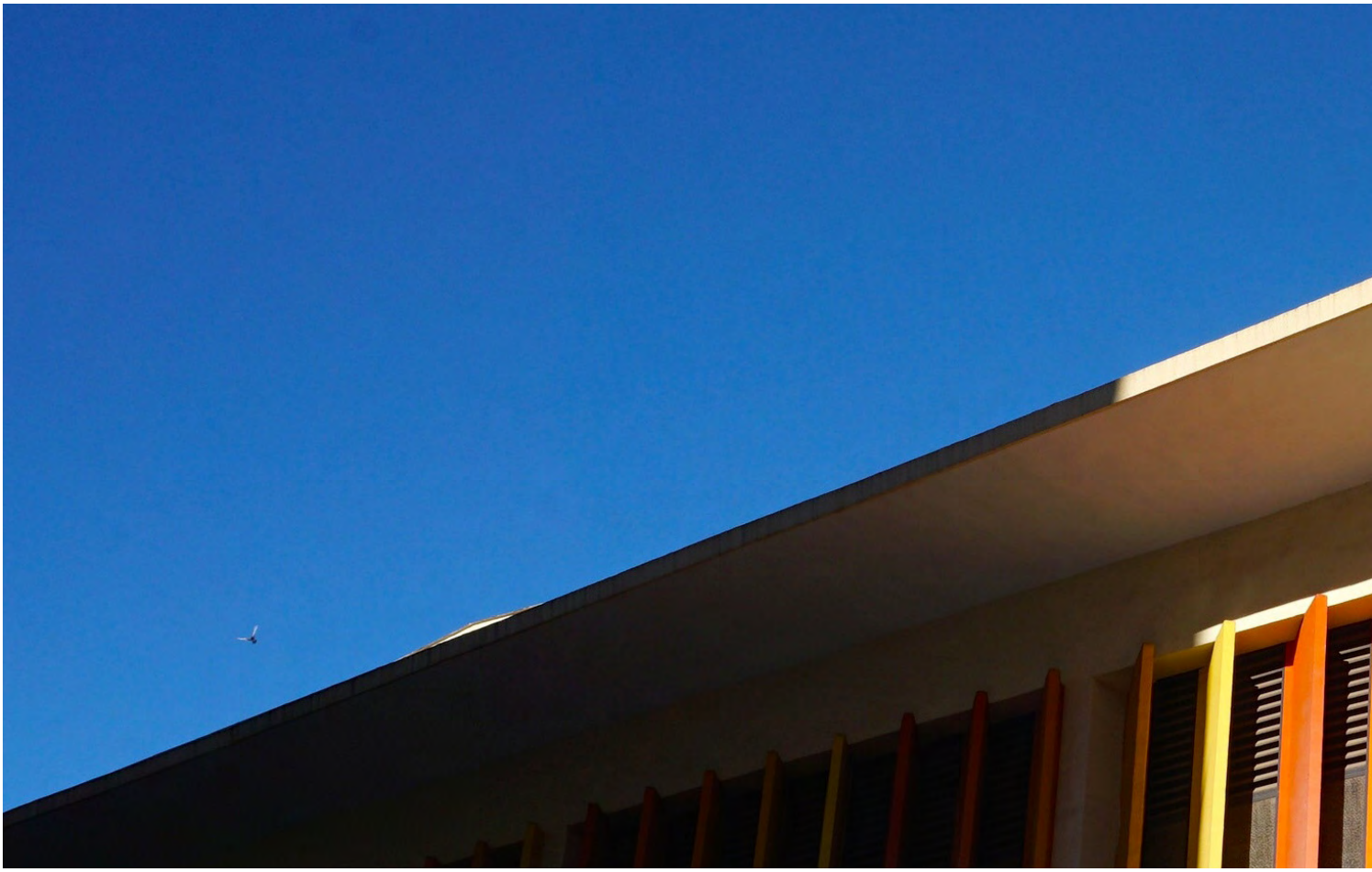
VALENCIA ALTER-ECO APP



Valencia Alter-Eco APP

METHODOLOGY

This mobile application adapts to the needs of the Interreg MED programme as it improves the visitor's experience using technology, increasing interaction with gamification and augmented reality techniques. It is a new promotion and communication channel for the destination, obtaining geolocated information on users, both socio-demographic and psychographic, for planning public policies.

With the APP, visitors discover local geolocated resources using games and impact can be measaured.

OBJECTIVES

The objective of the Alter Eco mobile application was to move tourists using gaming and augmented reality techniques from higher-density areas in the city of Valencia, the old town, to lower-density neighbourhoods that are highly attractive for visitors.

The aim is to encourage tourists to visit and evaluate the proposed spots, giving their opinion.

DESCRIPTION

The **Alter Eco** mobile application was developed in the three neighbourhoods in the city of Valencia: Cabanyal-Canyamelar-El Grau, Benimaclet and Ruzafa-Gran Vía. By using the APP users can:

• Discover the neighbourhood through its neighbours and win gifts (gamification).

• Complete geolocated missions while visiting the most characteristic spots in the neighbourhood.

• Collect points and tour the city with an Augmented Reality game.

• Share selfies on social networks.

The ALTER ECO application can geolocate all resources provided in the three neighbourhoods, to promote them and obtain information on visitors. Users can also complete special missions that involve moving around these areas, such that they travel from one place to another within the city.

The application takes into account the possibility of generating smart push notifications in real time or scheduled notifications to disseminate news among users. It also prepares specific mobility maps using heat maps to understand how tourists move around each area.

Various online communication campaigns were conducted during the pilot. The campaign was also assessed continuously so actions could be adapted each month, making the result more efficient[28].

The dissemination and marketing campaign lasted five months and involved various joint actions to generate a gradual impact on visitors.

The online marketing and communication actions carried out were:

• Search for gifts and special offers for the app.

• Posts on the Play&go experience blog.

• Dynamic content on social media: Twitter, Instagram, Google My Business and Facebook.

• Online advertising campaign for Google Adwords and Facebook Ads

• Guided tours with Turiart.

• Instagram photo competition.

• Creation and design of a poster and leaflets.

[28] Features examples of promotional images for the different campaigns available at: a www.alter-eco.interreg-med.eu in the Comunitat Valenciana section

RESULTS

In terms of positioning results, the Alter Eco APP gained a natural positioning on Google with the following results:

Table 2. Positioning results

#AlterEcoMed
Top spots in the general and photo search engine

Alter Eco Project
Ranked 7th and 1st as a reference in some related results (linked to Google My Business)

Alter Eco App
Ranked 2rd, 4th and 5th on the first page of Google results

Alter Eco mobile application
Ranked 1st on the first page of Google

Sustainable mobility app
Ranked 7th on the first page

Valencia barrio a barrio
The specific project name ranked 5th

Fuente: Geoturismo

As for online reputation, iPhone and Android users scored 4.9 out of 5.

In terms of the online store result, there were a total of 1,029 downloads during the campaign. We also obtained information on international presence with downloads from up to 10 different countries; not just Spain, but also Mexico, Italy, Peru, Colombia, US, India, China, Taiwan, and more.

In terms of spatial results based on the data obtained with the APP, a series of heat maps were prepared to identify the areas most visited by APP users based on their interactions with Points of Interest. The over one thousand APP users completed a total of 1,640 objectives completed and collected 396 gifts

Most visited areas

International presence

Game

OBSERVATIONS AND PROBLEMS DETECTED

Mobile app development does not end until April 2019 but since it was implemented we have noticed the difficulty in obtaining an accurate measurement of the effects of the online marketing campaign. Presence on social networks is insufficient to ensure a product is working well. More time is needed for implementation and measuring data generated by users.

Another issue is contact with Points of Interest (POIs) where there are establishments or associations that could offer special offers or gifts on the app. The overall result is that it was impossible to contact the owner or decision-maker directly at almost half of them; almost one quarter did provide a gift and the same percentage intended to so do but did not. Just 7% of cases explicitly did not want to provide a gift, which is a small percentage for consolidating the measure in the three neighbourhoods.

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MONITORING "LA MARINA DE VALÈNCIA"

Monitoring "La Marina de València"

METHODOLOGY

"La Marina de València" was monitored at seven points, to measure the number of people, how they move around the area and the times of maximum influx.

OBJECTIVES

• Obtain a general summary of influx indicating unique visitors and repeat visitors throughout the month, allowing us to know the areas, times, days and months with most visitors at the Marina as this will help better organise any activity carried out there.

• The purpose is not to discover the exact number of people, as this can be measured in a more feasible way with hotel occupancy. The aim is to verify that traffic is moving from the centre towards this new area of activity, proving that the initiatives launched are working and, therefore, to help propose a more efficient and organised management of the space.

DESCRIPTION

In late 2017, the Mayor of Valencia, Joan Ribó, along with the Valencia Council Government, announced that the "La Marina de València" would be the focus of the new commercial promotion of Consorci València 2007, the entity that manages "La Marina de València", to make the dock more dynamic and bring the public closer to the area, updating it with new cultural and innovative spaces.

"La Marina de València" has undertaken three main missions:

• Productive activation of an underused sea front.

• Taking over the old Valencia port for the use of citizens.

• The economic sustainability and efficient management of a development agency.

Taking into account that "La Marina de València" represents over one million square metres of the city and lies by the sea, in a public space of this size and with ever-increasing activity, it is necessary to be able to quantify the number of visits received so as to study the impact of the new development and consolidation strategies implemented.

By monitoring the Marina area at seven points we can obtain data to generate a very detailed map on movements and the profile of visits received by the Marina. This will, in turn, lead to a series of valuable indicators to measure public acceptance of process to make the Marina more dynamic.

To date, surveys had been conducted to assess traffic, but they were occasional and non-automated. Since March 2017, we are able to quantify the number of visitors to the Marina by monitoring the area at seven points. This monitoring process was implemented by installing seven VIABOX devices[29].

[29] More details on the description and operation of the technical equipment ("La Marina de València), available at: www.alter-eco.interreg-med.eu in the Comunitat Valenciana section

[30] To consult the full monitoring results of this phase go to www.alter-eco.interreg-med.eu in the Comunitat Valenciana section

RESULTS[30]

If we could already deduce the level of movements in the Marina by the activity carried out and its location, with the data collected by the sensors we can more accurately determine the level of influx by knowing:

- Number of people passing through the Marinaarina
- Peak visiting hours
- Distribution by day of the week
- Busiest areas
- Movements between the seven points of reference

With the reports collected to date we can see very high levels of monthly visits, ranging from 757,645 in April (the first full month data was collected) to a high of 974,168 in July (summer period), with an upward trend as the week advances and a notable rise at the weekend. Another data of interest in terms of influx was on the weekend of 15 June, when there were between 49,789 and 56,932 people per day.

bankia FINTECH
INNSOMNIA
VICTORY CHALLENGE
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The monthly reports generated allow us to:

• Obtain an overview of monthly influx, providing a summary of the most relevant information: Total unique visitors, rate of repetition, average stay, new visitors, loyalty and busiest day of the month

• Obtain a monthly map of the areas of most influx (Distribution of influx by zone) which allows us to quickly see **which areas are the busiest** (Figure 9)

• Obtain a monthly map of total movements (Monthly summary of movements), as well as a table of movements broken down by point of origin and point of destination. This map allows us to quickly see the **number of movements between different points, as well as which of these movements are most common**, and the table completes the information by differentiating movements by point of origin and point of destination (Figure 10)

• Obtain a breakdown of visitors by day and zone. This summary table is of great use as we can quickly and directly see at each of the seven points monitored: **average influx, peak time, average visitors at peak time and stay**, and all this information is **broken down for each day of the week** (Figure 11)

• Obtain a monthly history of influx. This shows us **changes in influx throughout the year**, offering a forecast of visits to help better organise any activity carried out at the Marina (Figure 12)

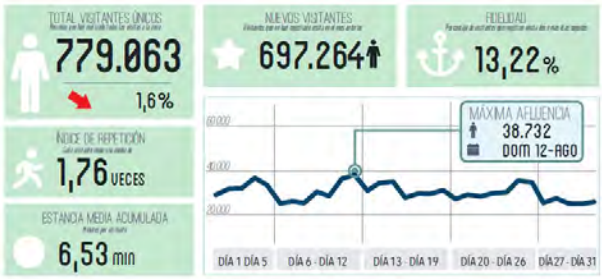
MONTHLY SUMMARY of journeys

punto destino

punto origen	EDIFICIO RELOJ	TINGLADO 5	TINGLADO 2	MARINA SUR	VARADERO	NEPTUNO	MARINA NORTE
EDIFICIO RELOJ		18.456	16.962	536	167	436	158
TINGLADO 5	11.337		119	349	635	111	34
TINGLADO 2	14.176	365		14.662	27.346	4.638	1.141
MARINA SUR	657	477	18.962		17.754	5.532	18.488
VARADERO	688	178	21.375	15.968		21.932	2.848
NEPTUNO	532	163	4.481	7.116	21.872		18.816
MARINA NORTE	131	52	1.172	18.285	2.838	28.484	

Figure 11

GENERAL SUMMARY of affluence



ZONAL DISTRIBUTION of affluence

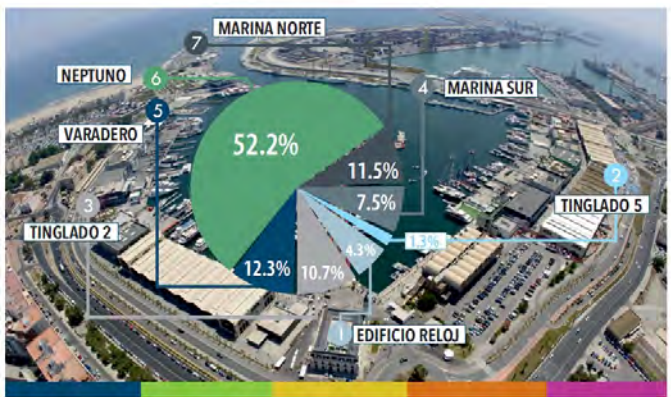


Figure 9 / Figure 10

OBSERVATIONS AND PROBLEMS DETECTED

• Of all the data to be obtained, perhaps the most relevant is the average stay of each visitor. However, the location of the Marina -next to the beach, offices and the port-, and the configuration of the sensors, which register a visit for every presence detected for over five consecutive seconds, do not allow us to distinguish between people passing through and real users of the Marina. A prior study showed that 71.4% of people who park at the site carry out their activity outside the Marina. Counting them as visits is correct as they pass through the Marina, but we should be able to differentiate between visits to the Marina itself by the time they spend there.

• To make the study more complete would have required obtaining details on visits received according to the time of day together with movements, so as to study the evolution of movements by zone and time. We do have data by time for each point but we do not have movements, i.e., we have influx at a specific point and a given time, but not where they move from and to.

• We could not measure influx according to three lengths of stay (less than 2 hours, between 2 and 4 hours, over 4 hours) as the VIABOX devices can only measure the duration of stays for each hour, not by a range of hours.

• One significant problem detected is that the company Viabox, responsible for monitoring, only saves data on a cloud. This means that when equipment is disconnected, either due to faults in the equipment or due to weather, this information is lost and we therefore have no records for the days affected.

Budget: €15,000-20,000

DAILY DESGLOSE and ZONE of visitors

	LUN	MAR	MIE	JUE	VIE	SAB	DOM
EDIFICIO RELOJ	2.713	2.953	2.975	2.987	2.992	3.942	2.629
	08:00 h.	14:00 h.	14:00 h.	08:00 h.	14:00 h.	14:00 h.	13:00 h.
	380	420	440	385	448	420	294
	2.5 min.	2.4 min.	2.6 min.	2.6 min.	2.7 min.	2.4 min.	2.7 min.
TINGLADO 5	662	1.024	1.076	1.040	1.080	544	282
	11:00 h.	20:00 h.	12:00 h.	11:00 h.	11:00 h.	17:00 h.	17:00 h.
	154	164	207	148	202	88	78
	4.1 min.	4.8 min.	4.6 min.	4.8 min.	4.6 min.	6.1 min.	10.6 min.
TINGLADO 2	3.216	2.790	2.924	3.450	3.529	6.523	4.060
	14:00 h.	14:00 h.	14:00 h.	14:00 h.	14:00 h.	12:00 h.	12:00 h.
	535	612	609	527	575	663	702
	6.07 min.	5.97 min.	6.3 min.	5.8 min.	5.5 min.	4.0 min.	4.8 min.
MARINA SUR	2.002	1.776	1.438	1.731	2.220	4.125	2.536
	16:00 h.	15:00 h.	14:00 h.	16:00 h.	16:00 h.	19:00 h.	13:00 h.
	531	402	312	295	341	1.676	455
	27.7 min.	23.2 min.	31.5 min.	23.9 min.	23.04 min.	13.3 min.	17.2 min.
VARADERO	2.730	3.129	3.371	3.372	3.424	5.300	3.248
	15:00 h.	14:00 h.	14:00 h.	14:00 h.	15:00 h.	14:00 h.	13:00 h.
	391	432	521	421	500	566	512
	9.7 min.	8.5 min.	8.0 min.	7.9 min.	8.4 min.	6.6 min.	8.3 min.
NEPTUNO	4.172	4.835	5.149	5.390	4.737	8.923	6.566
	14:00 h.	16:00 h.	16:00 h.	17:00 h.	16:00 h.	20:00 h.	12:00 h.
	626	724	853	748	824	3.348	958
	6.3 min.	5.6 min.	5.3 min.	5.0 min.	4.9 min.	3.7 min.	4.1 min.
MARINA NORTE	2.055	1.881	1.740	1.754	2.123	2.943	3.029
	15:00 h.	18:00 h.	16:00 h.	17:00 h.	14:00 h.	13:00 h.	13:00 h.
	411	413	345	298	426	580	558
	22.6 min.	23.2 min.	20.9 min.	23.2 min.	20.2 min.	12.9 min.	13.3 min.

LEYENDA

- MEDIA DE AFLUENCIA — Media aritmética de visitantes para cada día de la semana
- HORA PUNTA — Tendencia de hora punta para cada día de la semana
- MEDIA DE VISITANTES EN UNA HORA PUNTA — Media aritmética de visitantes durante las horas señaladas como hora punta
- ESTANCIA MEDIA — Minutos por visitante de media para cada zona y día de la semana

MONTHLY HISTORICAL of affluence

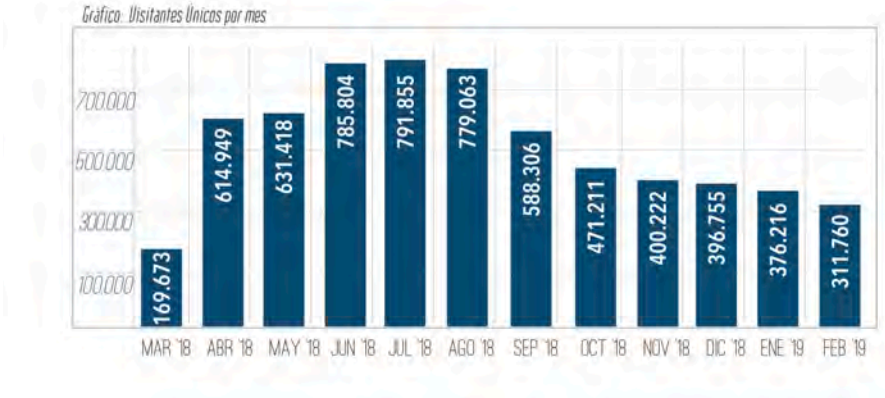


Figure 12 - February 2019

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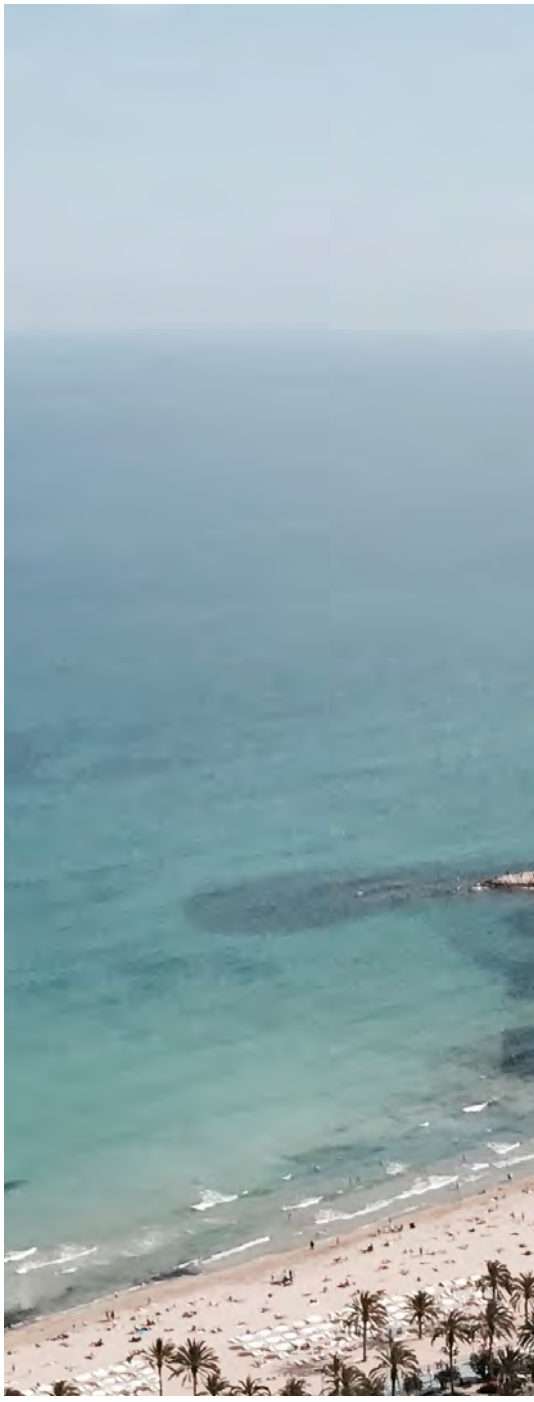
CONCLUSIONS

CONCLU-SIONS

Conclusions

The fulfilment of the objectives set by the ALTER ECO project, in the pilot of the Valencian Community, has determined the type and scope of the measures implemented in the cities of Gandía and Valencia. Based on the results obtained, the following final considerations are described in relation to each of the specific objectives set out in the project.



OBJECTIVE 1
REDUCTION AND BETTER MANAGEMENT OF THE IMPACT OF TOURISM ACTIVITIES ON THE ENVIRONMENT AND IN AREAS WHERE THE CARRYING CAPACITY IS EXCEEDED (HOTSPOTS)

• **Obtaining data** on the number, mobility, frequency and influx of tourists in the areas established through the measures may allow public bodies responsible for the management and planning of tourism, greater control over problems related to tourism activities. Measuring systems such as influx monitoring, access to public Wi-Fi or the use of tourist APPs and their link with social networks give an insight, albeit with some inaccuracy, into the real behaviour, patterns and conduct of tourists in the two areas of study: Gandía and Valencia.

• Reformulating tourist maps and guides can redirect tourist flows around the city as a complement to traditional circuits. However, based on data generated by tourists, we can trace another type of map, a valuable instrument for **developing tourism marketing** adapted to the diverse and changing tourist profile. Converting the information obtained from the different measures implemented into geospatial information can generate a database available to companies related to the tourism sector.

• The implementation of the measures has served to **test the use of new communication technologies:** measurement sensors, Wi-Fi networks and mobile APPs in the field of tourism activities. On the one hand, this corresponds to the will of public administrations to promote innovation in tourist destinations through the paradigm of "Smart Tourist Destinations". On the other hand, the ALTER ECO project pilot in the Comunitat Valenciana has managed to equip neighbourhoods, tourist areas and destinations with this type of communication technologies. A first step in achieving this objective.

• Launching the measures has also served to influence the conduct and behaviour of tourists and to alter their habits, by **offering them other leisure and recreational tourist areas** of cultural, landscape and environmental interest. The creation of alternative routes, or tourist APPs with updated cultural agendas, offers both tourist and locals a new way of discovering the city.

• Applying some measures is an attempt to **implement structural policies** to regulate tourist accommodation, to adapt them to comfort, sustainability and accessibility regulations. This sector is traditionally reluctant to any attempt at regulation that would force the refurbishment or improvement of this type of housing.
The measure implemented in this area has raised awareness by promoting in the sector the willingness to invest in the necessary improvements, given the obsolete conditions of the park of second homes in the Comunitat Valenciana. Tourist accommodation offers profitability to owners being a commercial activity which, like any other, requires an investment for improvement and revaluation.

From the work done has been intended as a first step towards transforming and improving this sector. The activity carried out began a line of work that, if continued over time and complemented with suitable and attractive business models involving public and private agents, will allow to reach the initial objectives set for improving the tourist housing stock in the Comunitat Valenciana.

• The Government of Valencia has learned through experience and has shown interest in continuing this line of work.

OBJECTIVE 2
IMPROVING THE SOCIAL SUSTAINABILITY OF MEDITERRANEAN TOURIST DESTINATIONS AND PROMOTING THE MEDITERRANEAN IDENTITY

• The information and data obtained from the measures applied offer an **overview of the spatial organisation of tourists**, almost in real time, to detect areas of greater tourist intensity, reduce loads and promote the end of seasonality. Data from Gandia have revealed that the Marquesa area attracts significant tourist influx and should be developed to end the seasonality of the destination.

• The measures implemented contribute to **social education by using digital devices**, extending the range of communication channels between tourists, the city and the destination for the progressive consolidation of “Smart tourist destinations". Instant access to the cultural agenda and activities advertised, and being able to make comments and leave opinions, is a form of direct communication between the tourist destination and tourists.

• Another relevant aspect of the project was the support provided, both in terms of information and **technical help, to tourist accommodation owners.** This measure has generated debate on the need to understand the real state of tourist apartments and second homes, a fundamental factor correlated with the life cycle of the tourist destination and its level of income. Offering owners tools to assess the potential for updating their properties opens the door to raising awareness on this aspect that is so relevant to the quality of a destination. This enables well-informed users and tourists to demand better services in terms of facility quality, which can improve the destination as a whole.

OBJECTIVE 3
IMPROVING COOPERATION, JOINT AND INTEGRATED PLANNING AMONG PUBLIC AND PRIVATE AGENTS, AND MANAGEMENT OF CONFLICTS OF INTEREST, IN ORDER TO CREATE NEW BUSINESS OPPORTUNITIES.

• **ALTER ECO** project measures have proven that public administrations are **committed to collaborating** with local administrations to set up, manage and maintain equipment or prepare content. This collaboration included drafting and preparing guides, monitoring influx or developing mobile applications.

• The **direct involvement of regional and local public administrations** in designing and developing measures was key to their success. In the case of Gandia, for example, the local administration was directly involved in promoting and launching the measures, offering its coverage and perspective from the outset; this factor helped improve the usefulness of the results. Another good example of mainstreaming was developing measures to improve the comfort of tourist accommodation. The role of Turisme Comunitat Valenciana (TCV), the Regional Government body responsible for promoting and executing tourism policy in the Comunitat Valenciana, was particularly noteworthy due to its involvement in designing and implementing this measure. In this way we could focus on the specific needs of the regional government from the outset, facilitating greater cooperation in disseminating the end results and in how the public administration uses the resources generated.

• The ALTER ECO project had access to **emerging know-how** from tourist departments, bodies and companies for the viability of redesigning alternative routes or adapting tourist APPS to specific cases. This promotes creativity and the inclusion of design and tourist sector management companies. And also companies specialising in reading and interpreting gross tourist data to convert them into relevant information or recommendations for public administrations.

• **Collaboration with public universities** was fostered both in terms of initial issues on consultancy and drafting reports, and subsequently related to the project and research arising from studying and monitoring the data obtained progressively while the measures are ongoing. This collaboration can not only act as a catalyst and promote institutional collaboration, but it will mean that results from the measures implemented can contribute to transferring knowledge from the university to society.

El projecte ALTER ECO, amb les mesures aplicades en el pilot de la Comunitat Valenciana (les ciutats de Gandia i València) ha adreçat. •

GENERAL CONCLUSIONS

The ALTER ECO project, with the measures applied in the Comunitat Valenciana pilot (in the cities of Gandía and Valencia), aimed to tackle with solvency the general objective of the project: to improve the balance between attracting tourism, as a source of economic growth, and the conservation of the traditional Mediterranean city model as an example of sustainability. The following is a brief description of the concluding points which ratify the fulfilment of the expectations proposed at the beginning of the project:

• Promoting measures at two levels: urban-neighbourhood and sun and beach destination.

• Returning information and data obtained to society as a catalyst for transforming the tourist destination and by changing how tourism is planned.

• Offering business opportunities to the commercial and business sectors of the neighbourhoods and tourist areas affected.

• Reinforcing the Mediterranean identity by understanding tourist conduct and behaviour.

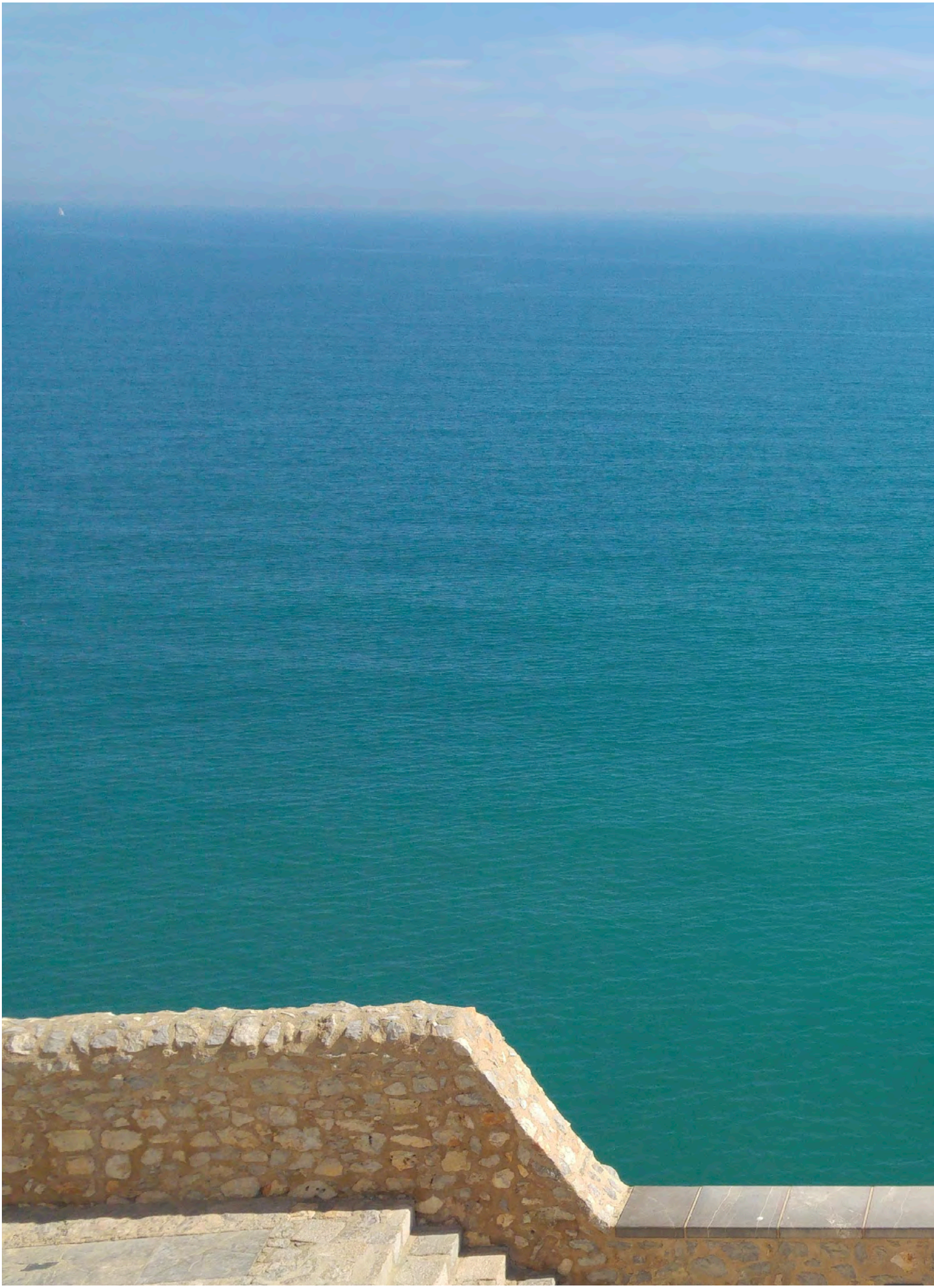
• Transitioning towards greater innovation at the destination by using communication technologies.

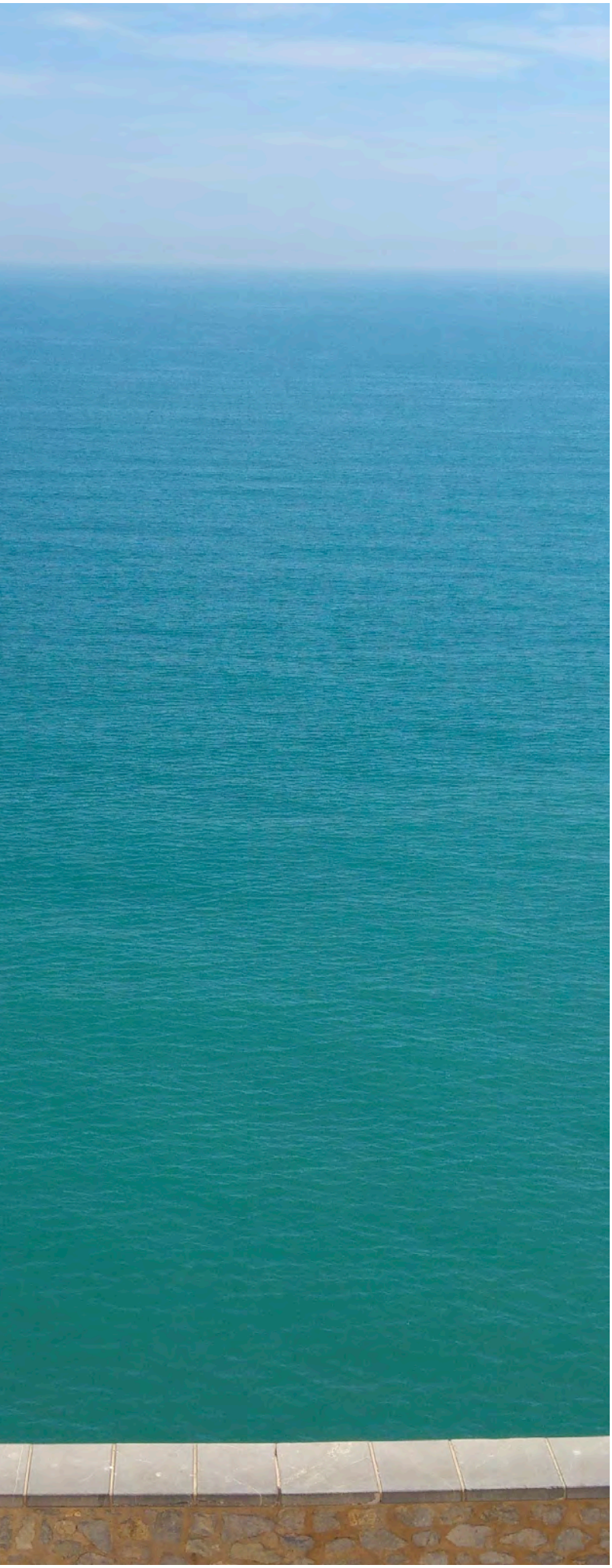
• Social awareness on improving and transforming the tourist products offered.

The project carried out in the Comunitat Valenciana pilot has also established some lessons learned which are transferrable to other pilot projects:

• **Incorporation of technology companies** some of them start-ups, which have promoted innovation and management of smart tourist destinations by applying new technologies such as mobile applications, Wi-Fi networks or monitoring sensors, which required the incorporation of other types of companies traditionally outside the tourism sector. This entails a difficulty in finding the right companies to carry out this type of work, either because of the difficulty of advertising bids or because the companies being not accustomed to the product requested. In the case of the Comunitat Valenciana pilot, this translated into low participation in tenders.

• **The maintenance of the equipment** when installed in height and outdoors, caused greater inconvenience in collecting data because the difficulties of access to them lead to faults in the collection of data and therefore in the final results obtained. To carry out this type of works and obtain accurate, reliable data, it is important to consider a realistic forecast of maintenance costs and to create a firm agreement on how and by whom the maintenance of the measuring equipment





will be carried out, as well as the conditions of special machinery or infrastructure necessary for the assembly and maintenance, since any incidence in the Internet connections, equipment failures or time lost in repairing equipment will reduce the data collected, thus reducing data quality and reliability. These drawbacks generated doubts about the viability and continuity of these services to the responsible administration.

• **Legislative restrictions on contracts** both at state level and Interreg MED, the umbrella programme for the ALTER ECO project. This means that contracts are generally awarded to the most economical bid and that experience and/or technical quality criteria have less or no weight, meaning that, if the winning company does not have the level or means required for the job, the results will not be reliable or new companies will subsequently have to be contracted to complete the work or make data understandable. In this type of initiative, it would perhaps be convenient to not only consider the bid submitted but also experience, equipment, etc., to offer minimum guarantees.

• **Involving the commercial and business sector** was one of the most relevant consequences of the Comunitat Valenciana pilot. Implementing some measures required contacting establishments in each neighbourhood and tourist area to find business opportunities. It has been observed that it is especially important to include the productive sector in participating in measures and in the decision making for their implementation. In the case of the Comunitat Valenciana pilot, an attempt to include as many businesses as possible has been made, but the short duration of the project led to a low ratio and participation. It is recommended to allocate more time to the contact and incorporation phase for companies in the tourism sector.

• **Encouraging public participation,** particularly residents, associations and social groups, to determine specific aspects such as points of interest or the creation of alternative tourist routes. The Comunitat Valenciana pilot also worked at user level -in relation to generating comments and opinions on social networks- and with tourist accommodation owners. However, the short duration of the project did not achieve direct involvement so it is recommended to continue exploring this line in order to determine the degree of involvement of neighbours in the measures, and the level of satisfaction of accommodation owners as well as their willingness to improve and transform to current quality standards.

PRO-
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ALTER
ECO

GENERALITAT VALENCIANA
Conselleria d'Habitatge, Obres Públiques i Vertebració del Territori

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Interreg Mediterranean
ALTER ECO