



REGIONAL POLICY ANALYSIS FIRST REPORT IN CATALONIA 2017



Summary

EXECUTIVE SUMMARY.....	3
1. CURRENT SITUATION OF TOURISM IN CATALONIA.....	5
2. REGIONAL POLICY INSTRUMENT.....	10
3. TERRITORIAL AND SECTORIAL PLANNING POLICIES.....	12
3.1 Territorial and urban planning.....	12
3.1.1 Strategic tourism plan 2005-2010.....	15
3.1.2 Strategic tourism plan 2013-2016.....	17
3.1.2.1 Objectives of the 2013-2016 strategic Plan.....	18
3.1.3 Plan to foster nature tourism in Catalonia's protected areas.....	20
4. CONSERVATION POLICIES.....	24
5. VISIONS AND TRENDS.....	29
5.1 Third report on climate change in Catalonia: Marine and coastal ecosystems.....	29
5.2 Third report on climate change in Catalonia: the impact on tourism industry.....	29
5.3 Creation and application of a system of tourism indicators for the sustainable management of destinations.....	34





EXECUTIVE SUMMARY

The document is the regional policy analysis first report in Catalonia 2017. It can be divided into 4 categories:

Firstly: The current situation of tourism in Catalonia. Tourism has a highly economic impact in our country, it represents approximately + 11% of GDP and generation of almost 400.000 jobs (12,6 % of total). Tourism has generated business during the last economic recession.

In this part of the document, we show through graphics, how the number of tourists are growing up in the last 6 years constantly and the high seasonality and territorial concentration of tourism in Catalonia.

To understand the transformation produced on the coast since the 60s until now, we have to understand how important the Catalan tourism industry is. Recent studies calculated in 20.000€ million the value of tourist assets of our coast. But these 20.000 € million doesn't involve just heritage and infrastructures, it also includes the first and second residences that have been built along the coast.

Secondly: Territorial and sectorial planning policies with 3 visions:

- The instruments to regulate territorial and urban planning. Currently, a regional level, they start to work in the new territorial tourism planning.
- The strategic tourism plan 2005-2010 and the strategic tourism plan for Catalonia 2013-2016. Since 2005, once approved the first strategic tourism plan, it has been the applied tourism policy.
- The plan to foster nature tourism in Catalonia's protected areas. We consider this plan essential in the Land Sea project. The objective of the plan is to position Catalonia as a leader in nature Tourism in the Mediterranean region by 2020. And this objective will be achieved by optimising the value of its natural, cultural and landscape resources and contributing to local and regional development.

Thirdly: Natural conservation policies. Actually, there are two law proposals in the Catalanian parliament: one to approve the strategy for natural heritage and Biodiversity in Catalonia and another for the creation of the Catalan Nature Agency. The system of protected natural areas in Catalonia is one the principal components that support the conservation of biodiversity in Catalonia.

Finally: The impact of future climate scenarios on the tourism industry in Catalonia, (Third Report on Climate Change in Catalonia -Barcelona, 2016 Government of Catalonia) and the system of tourism indicators for the sustainable management with an example of model applied to the province of Barcelona based on the European commission's European tourism indicators (ETIS).



1. CURRENT SITUATION OF TOURISM IN CATALONIA

Catalonia is a tourist destination that can be defined as the sum of many and diverse tourist destinations. It is a harmonious cluster of autonomous destinations that are both sustainable and competitive. Catalonia's tourism potential is based on these differences: it is not so much one single, homogeneous destination, but rather the aggregate of different destinations that are the product of cultural diversity and natural and social heritage.

In quantitative terms however, the Catalan tourism industry is underpinned quite clearly by the attraction of its coastline, as this is the sector where the majority of European tourists are to be found and is Catalonia's principal tourism market.

The evolution of tourism and the number of visitors has been marked by constant growth over the past 60 years.

To be able to explain where we are at this moment in time with regard to the tourism model, several factors relevant to its development need to be explained.

One – A mass tourism model of sun, sea and sand with great international success which, at the start of the '80s and more clearly towards the '90s, began to show symptoms of being obsolete. This could be seen physically in the facilities on offer and also in the mass tourism model based on a single product, in a monoculture lacking innovation, diversification and reinvestment.

It was in the '90s when the need to commit to a type of tourism that was more diversified, sustainable and of greater quality emerged, in which a large proportion of the local destinations were involved in reshaping their growth models. This can be summarised in three phases:

1-The strategy for destination regeneration and the certification of establishments (started in the mid-'80s and continues today)

2-The strategy for individualisation by incorporating new products (started at the beginning of the '90s and continues today)

3-The strategy for sustainability (started at the end of the '90s and continues today)

This commitment by the tourism industry has to be set against a growth in construction, an activity that has, broadly speaking, been noted in the majority of regions in Catalonia, also impacting the coast, with both first and second residences.

Alongside the building boom, we are increasingly finding good examples of quality tourism products and services that are diversified, sustainable and responsible and bring a greater de-seasonalisation of demand, something that is a real problem on much of the Catalan coast, as will be seen in data later in this section.

The Port Aventura project and the transformation of a municipality, namely that of Vilaseca i Salou, should also be considered a model of success within the context of this Land Sea project analysis. This project demonstrates how offering products and services that are not based on sun, sea and sand, together with consensual land-use planning, have contributed to boosting and positioning a coastal destination, thereby transforming it.



Two.-The success of Barcelona as a world tourist destination that generates business even in the midst of an economic recession.

The growth in the number of visitors and overnight stays in Barcelona explains, to a large extent, why Catalonia's tourism indicators are growing in both quality and quantity.

Three.-A development in inland and mountain tourism, which has been consolidated by, amongst other factors, the creation of a network of tourism establishments and rural accommodation, plus an expansion in the choice of active tourism, adventure sports, cultural tourism and ecotourism on offer.

The range of gastronomic options should also be added to these more specialised tourism products and services, options that are increasingly more diverse and innovative, as well as the surge in wine tourism which, under a single brand that includes 12 designations of origin and more than 350 wineries, round off a varied range of products on offer.

In this element in the development of inland tourism there is a relevant factor, as we said earlier on, which is that coastal tourism also needed to expand inland: to move beyond its bounds to diversify the products it has to offer and extend its periods of tourist occupation.

Activity data for the tourism industry

1. Number of tourists. 2016 data compared to 2010

	2016	Growth with respect to 2010
Tourists (Millions)	36	+ 22,7 %
Foreign tourists	18	+ 37,7 %
Tourists rest of Spain	5	+ 29,7 %
Catalan tourists	13	+ 17,6 %

Expenditure (Millions)	20,8	+ 42,7 %
Foreign tourists	17,4	+ 66,9 %
Tourists rest of Spain	1,8	+ 72,4 %
Catalan tourists	1,5	+ 25,7 %

Source: Foreign tourists with main destination Catalonia, IDESCAT, 2016 (Statistical Institute of Catalonia)

IMPACT OF TOURISM ON CATALONIA + 11% OF GDP

GENERATION OF ALMOST 400,000 JOBS (12.6% OF TOTAL)

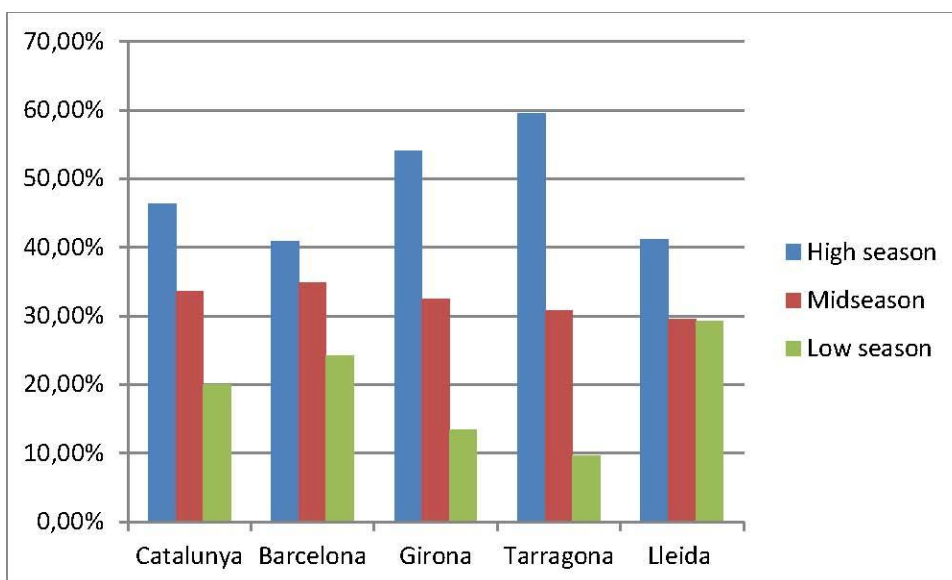


2. Average expenditure per stay per generating market.

Country	Average expenditure per tourist and stay in Catalonia (€)	CAGR 2010 -2016
France	512	-0.5%
UK	797	0.7%
USA	1,699	0.3%
Germany	764	-1.9%
Russia	1,525	8.2%
Italy	641	-2.3%

Source: THR, using IDESCAT data (2016)

3. Distribution of tourist arrivals in Catalonia 2016 We mentioned earlier the high seasonality and territorial concentration of tourism in Catalonia, as can be seen in the distribution of tourist arrivals in Catalonia in 2016.



Source: EIH from the INE (National Statistics Institute)

Seasonality is not the same in each province. Girona and Tarragona have a high level of beach tourism, with high demand in July and August. The demand in Barcelona is virtually equally distributed throughout the year. Lleida, an inland province, sees its demand concentrated in the winter season for the snow, and in August. The Catalan coast, stretching along 826.5 km, concentrates 95% of all foreign tourists in Catalonia (including the city of Barcelona).



4. Concentration of activity

	TOTAL	BCN	GIR	TAR	LLE	TOTAL	COAST (1)
Hotel establishments	2,97	43 %	24 %	13 %	20 %	100 %	77 %
Hotel keys	309,48	46 %	25 %	20 %	9 %	100 %	90 %
Non-hotel keys	289,52	14 %	44 %	25 %	17 %	100 %	81 %
Tourist offices	187	24 %	22 %	27 %	27 %	100 %	67 %

Source: Tourist accommodation, IDESCAT, 2016. Gross value added, areas within the Territorial Plan: IDESCAT 2014

Note (1): COAST refers to Barcelona, Costa Brava, Costa Daurada, Costa de Barcelona and Terres de l'Ebre.

With regard to businesses that operate in the sector, we can make an estimate based on the following data:

5. Tourism industry businesses with establishments in Catalonia.

Interannual variation

	Value	Distrib. %	Absolute	Relative
Accommodation and food services	45,21	55,3 %	1,03	2,3 %
Transport (air, sea, land)	15,89	19,4 %	45	0,3 %
Travel agents and booking services	2,54	3,1 %	92	3,8 %
Rental (vehicles and other goods)	3,21	3,9 %	-33	-0,1 %
Artistic, cultural, sporting and recreational activities	14,89	18,2 %	577	4 %
Tourism industry total	81,76	100 %	1,71	2,1 %

Source: IDESCAT, from the INE and IDESCAT's Central Business Register (CBR).



6. Tourism industry businesses by number of employees

Number of employees

	0	1 - 9	10 - 49	50 - 199	200 - 249	+ 250	Total
Tourism industry	37,57	39,35	3,80	747	58	219	81,76
Accommodation and food services	15,04	27,65	2,05	342	28	88	45,21
Transport (air, sea, land)	10,33	4,65	619	198	17	72	15,89
Travel agents and booking services	1,25	1,09	137	43	3	12	2,54
Rental (vehicles and other goods)	1,85	1,18	119	37	2	12	3,21
Artistic, cultural, sporting and recreational activities	9,08	4,76	879	127	8	35	14,89
Services	291,54	193,03	18,13	4,03	331	1,46	508,53
TOTAL	353,73	232,14	25,72	5,54	456	1,89	619,49

Source: IDESCAT, from the INE and IDESCAT's Central Business Register (CBR).



2. REGIONAL POLICY INSTRUMENT

The regional policy instrument on which the land-sea project should have an impact is the Operational Program European Regional Development Fund (ERDF) 2014-2020. Axis 6: Environmental preservation and protection and promotion of efficient resources. Specifically, the project focuses on Investment Priority 6.3: the preservation, protection, promotion and development of natural and cultural heritage, especially natural areas with tourist interest.

The system of protected natural areas in Catalonia is one of the key elements to promote the conservation of biodiversity in natural spaces in coastal areas, but at the same time it is an attraction for tourists, who generate an important environmental impact in these areas.

To preserve these areas it is necessary to create projects, plans and policies to keep them as a tourist attraction, but reducing their environmental impact. The main objectives are:

- Stimulate and promote the conservation of natural areas.
- Assess the natural areas, biodiversity and natural heritage of Catalonia in relation to citizenship and its use as a tourist resource.
- Promote economic and sustainable development in these areas.

In addition, these natural tourist attractions generate an environmental and social impact in nearby urban areas that should be mitigated. The seasonality of tourists is also a big problem, since some sites face saturation of services and infrastructures (roads, parking lots, shops, hotels, waste management plants and water ...) during the high season. The link of these impacts and the strategies to reduce them are not currently addressed in the Policy Instrument.

The form establishes that the Directorate General of Turisme conceives that the Policy Instrument can be improved by creating and applying innovative management and governance systems with the aim of reducing the environmental and social impact of tourism in protected coastal areas and their surroundings. The following issues will be addressed to achieve our goal:

- Linking preservation and promotion of natural heritage projects with plans and methodologies for the protection of coastal areas (improved governance).
- Planning a new tourism model, creating new activities and transforming existing ones (improved governance + new projects and measures).
- Development of monitoring tools and indicators to study the tourism impact and the effectiveness of the actions carried out during the project (improved governance).

The aim is to create new local jobs and create a positive economic impact in coastal areas and nearby urban areas, but at the same time not endanger the environmental heritage and social culture of the area.

Regarding the current situation of the issue addressed by the Regional Policy Instrument 4 in



the Territory and what needs to be improved in the territorial situation, the approved application form of the project establishes that: the Catalan coast faces a great anthropogenic impact; and the tourism sector represents an increase in pressure on the environment in these areas. This impact is especially relevant in some beaches located next to protected areas or urban areas. Mobility, the generation of waste, the use of resources (energy and water), the impact on the natural ecosystem, the generation of noise, the use of chemical products (sun cream, oils ...) are some of the main impacts generated. It is important to reduce this impact by offering more sustainable tourism activities, more efficient and collective ways of moving and doing awareness campaigns, among other measures. Also, the Catalan coast is very urbanized.

During the last decades, small fishing towns have become large cities occupying most of the coastline by large family houses or apartments. Many of these new homes are owned by foreigners and are only used during small periods of the year.

The visual and environmental impact of these buildings is a major problem in the Catalan coastline.

The seasonality of tourism is also a problem because the infrastructures (roads, car parks, the electricity network, waste treatment plants and water ...) have to be designed with the most crowded periods (the warmest months). During the summer these infrastructures are usually saturated, while during the colder months they are underused.

The urban areas located next to the main tourist attractions also suffer from this seasonality, becoming very crowded during the summer and desert areas during the winter. This also creates a social impact on the local population, which has to deal with the seasonality of people and jobs.

It is necessary to create policies and plans to attract tourists during the low season while attracting tourists for the high season.



3. TERRITORIAL AND SECTORIAL PLANNING POLICIES

3.1 Territorial and urban planing

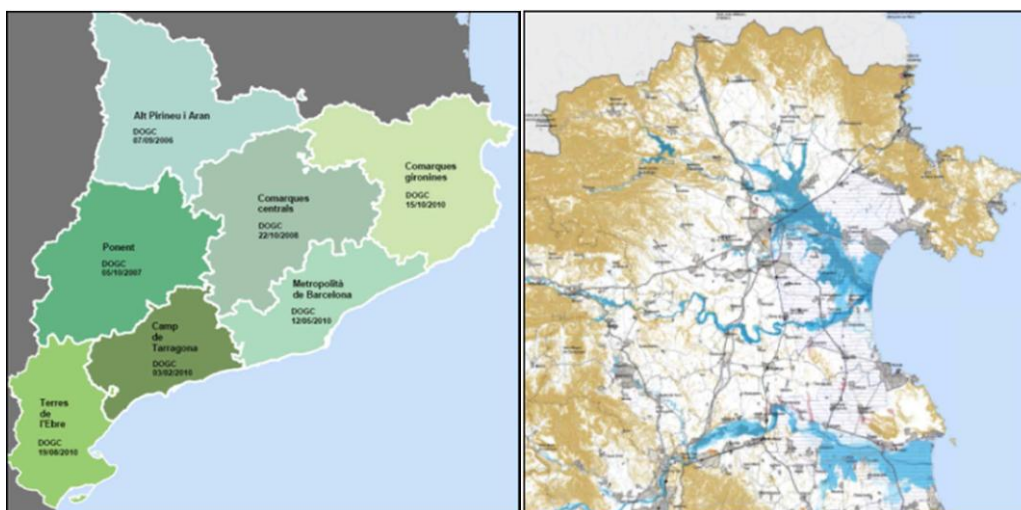
Over two thirds of the 7 million inhabitants of Catalonia live in a 20-kilometre-wide strip along the coast.

This area was chosen by many of the manufacturers who set up production units in the nineteenth century but since the 1960s it has also attracted tourism, focusing on two centres: the Costa Brava and the Costa Daurada.

Forty-five per cent of the population of Catalonia lives in 6.9% of its area.

The instruments regulating territorial and urban planning coordinate the framework for medium- and long-term measures affecting the territory.

Territorial planning



The policies regulating territorial development, set out in 7 area plans approved between 2007 and 2010, include the basis for measures affecting open spaces, urban areas and infrastructures:

Open spaces

- 1 Favouring diversity in the territory, maintaining the reference of its bio-physical matrix.
- 2 Protecting natural, agricultural and non-developable areas in general as part of territorial planning.
- 3 Preserving the landscape and cultural heritage as social and economic assets of the territory.
- 4 Moderating land use.



Urban developments

- 1 Favouring social cohesion in the territory and preventing the segregation of urban areas.
- 2 Protecting and promoting the urban heritage that shapes the territory.
- 3 Facilitating an effective housing policy which is integrated in urban planning.
- 4 Facilitating the coexistence of housing and business activities in urban areas and rationalising the construction of estates for industrial and commercial use.
- 5 Establishing measures to regulate and establish suitable areas for second homes.
- 6 Ensuring that new growth is compact and not scattered.
- 7 Reinforcing the territory's convergent structure through urban growth.

Mobility

- 1 Making mobility a right and not an obligation.
- 2 Facilitating public transport by ensuring that urban areas are polarised and compact.
- 3 Paying special attention to the transport links between urban areas that define the structure of the territory.
- 4 Integrating the spaces dedicated to transport and logistics in the territorial matrix.

Eco-tourism is possible in areas on the coast which territorial planning classifies as Open Spaces, particularly in areas enjoying special or territorial protection, providing sites which have sectoral protection, environmental protection, protection against flooding and related risks, etc., and in spaces protected by other plans.

Master Plan for coastal urban areas

In 2002, in view of the urban pressure affecting the whole coastline, especially as a result of tourism and second homes, work began on drawing up two master plans for coastal urban areas. The aim of the first document is to protect land in open spaces which has not yet been developed so that it cannot be urbanised and building cannot take place on it, restricting its use so that commercial activity and building are minimised.

The second document aims to go further, blocking land-use changes in 44 sectors which are envisaged in municipal plans but have not yet been implemented.



For these 44 sectors two distinct strategies are proposed:

-in 20 sectors it is envisaged that the footprint of developed areas will be reduced by concentrating the areas occupied and making more land available as open spaces for the public

-in 24 sectors any future development is banned and their status returns to that of Open Spaces to be preserved.

- 500m from the sea
- 3 degrees of protection:
- No new activities
- Few new buildings
- Reuse patrimonial buildings
- Landscape integration
- 24 areas disqualified . 20 areas reorganized

These provisions, approved in 2005, have been incorporated in territorial planning as special protection, thus preventing any future modifications.

Land Use Planning Act

Currently the new Land Use Planning Act is in the process of being approved and it includes important new provisions regarding the possibility of planning to regulate open spaces that may be suitable for eco-tourism.

- Regulations regarding the territory, urban planning and landscape are brought together in a single legal framework which allows policies for regulating the territory to be coordinated.
- Policies on tourism and environmental protection can be included within this framework as part of the new 'Sectoral Territorial Strategies'.

Other disciplines thus benefit from the legal force of urban planning allowing plans to be binding and ensuring their implementation.



3.1.1 Strategic Tourism Plan 2005-2010.

Despite the quantitative data on its tourism, until recently Catalonia has not had any action plans to steer and regulate its tourism policy in either the private or public sector.

It was in 2005 when the first Strategic Tourism Plan for Catalonia was approved, in force for five years (2005-2010), henceforward PTEC 2005-2010. The Tourism Plan for Catalonia was created with the objective of carrying out an analysis of the sector's current situation, recognising the problems that existed, defining appropriate measures that could solve these problems, and achieve the proposed objectives.

The Plan was devised with the aim of involving public administrations, essentially local bodies and professional private actors and businesspeople from the Catalan tourism sector, in the joint management of all aspects relating to tourism in Catalonia.

The plan was drawn up with an extensive participatory process of analysis and diagnosis, and was structured into 10 major programmes.

1) Programme for land, landscape and society

This sought to identify the landscape integration requirements in tourism projects, a programme of embellishing urban and peri-urban landscapes and the definition of a strategy for tourism uses of the land.

2) Programme for the promotion and integration of tourism products

This is the programme that prioritises and drives the creation of the tourism product, and focuses basically on the creation of major Catalan tourism routes, closely related to cultural and natural resources.

3) Programme for the identification and promotion of the differentiating characteristics of the products and services on offer

This programme concluded with the creation of a catalogue featuring the tourism icons of Catalonia and the marketing of tourism product lines that represented the values of Catalonia as a destination.

4) Marketing and promotional programme

Under which the Catalan Tourist Board was created as a body to promote tourism and a tourism marketing plan was drawn up.



5) Programme for the modernisation and improvement of tourist information

Consolidation of the network of tourist information offices in Catalonia and the rationalisation of tourism signage.

6) Quality programme

A programme that spanned both quality standards in the tourism products and services on offer as well as their promotion and communication activities. The programme was closely linked to the classification of tourist accommodation on offer.

7) Programme for training and HR in tourism

Through this programme the training priorities of the various academic levels were identified in accordance with Catalonia's current education system, and training programmes were put in place to improve the competitiveness of the tourism sector.

8) Programme of applied research, technology and innovation

In this programme, and despite the initial objectives that were to promote a dedicated tourism observatory and create a tourism research institute as a central axis to permit growth in knowledge in all areas where tourism is an existing economic activity, it should be acknowledged that this is an aspect where the anticipated objectives have not been achieved. At present, work is being done on the creation of platforms that integrate all available knowledge through the collaboration of the public and private sector.

9) Programme for institutional, sectoral and regulatory framework consolidation

This programme permitted the reform and updating of the regulatory framework that applies specifically to the tourism industry.

10) Programme for communication and sensitisation

This focused strongly on communication and sensitisation amongst the population of the economic impact of the tourism sector. We should remember that we are talking about the first strategic plan that was approved by the Catalanian Government and that therefore centred greatly on the sector itself without tackling the sector's cross-cutting nature and the need to work on aspects of territorial planning and the integration of social and environmental factors. These elements will be incorporated into subsequent plans.



3.1.2 Strategic Tourism Plan for Catalonia 2013-2016

Building on the Tourism Plan for 2005-2010, following an assessment of its implementation, the Directorate-General for Tourism made a commitment to the continuity of a programme shared by both the public and private tourism sectors. This was done from two perspectives: one short-term, with objectives and specific measures to be carried out over the five years covered by the Plan, and the other with guidelines and objectives to be implemented by 2020.

In this section we outline the strategic aims of the Plan and the main problems it is intended to deal with. Work is currently in progress on these objectives together with an update for 2018.

Main areas

On 4 June 2013 the Government of Catalonia approved the **Catalan Tourism Directives 2020** and the **Strategic Tourism Plan for Catalonia 2013-2016**.

The Catalan Tourism Directives and the Strategic Tourism Plan for Catalonia 2013-2016 (henceforth STPC) contain guidelines for the development of a model of tourism governed by criteria of 'sustainable competitiveness', i.e. a balance between the quantity and quality of tourism, seeking added-value tourism that guarantees the continuity of the sector based on economic and environmental sustainability.

This is a challenge that Catalonia can meet, as it has adequate resources for the task. Below we detail the four main lines on which the STPC is based, with their programmes and projects to be implemented.

They are defined as follows:

- To achieve an optimum model of governance to deal with the situation of tourism in our country: tourism is a value chain and for this to function it is necessary for all of the actors involved to coordinate their activities, making cooperation between the public and private sectors indispensable.
- Developing destinations. Catalonia is not so much a single destination as the sum of many diverse and sometimes contrasting destinations. This is a strength of Catalonia's tourism potential, which is based on the existence of many varied destinations which have developed their own distinctive tourism experiences. There is, therefore, a need to combine an independent management model that ensures the distinctive characteristics of different destinations together with an integrated model that promotes Catalonia as a 'destination of destinations', avoiding duplication and inefficiency and developing the many synergies that exist between our destinations.
- Development of the tourism product. Catalonia is rich in tourism resources but still poor in tourism products that are structured, innovative, competitive and saleable, especially in the international market. We thus need to develop our ability to transform resources into saleable tourism products, so that users can enjoy our natural and cultural heritage, a task in which small and medium-sized businesses have a key role to play.

Promoting training, innovation and new technologies as vital elements for the excellence of our country as a tourist destination. Tourism has generally been more successful in innovating and



seeking excellence than other sectors thanks to natural and cultural resources which are very attractive for tourists. However, in times of recession, when competition is severe, it is indispensable for innovation and excellence to be part of the day-to-day life of society as a whole, especially in the tourism sector. Ongoing training, knowledge of languages and the advanced use of new technologies are some of the tools that need to be incorporated to set Catalonia and the sector on the road to excellence.

On 26 May 2013 the Management Board of the Catalan Tourist Board approved the **2013-2015 Catalonia Tourism Marketing Plan**. The Plan is intended to reinforce Catalonia's position as Europe's second most popular tourist destination, consolidating the model for tourism outlined in the Strategic Tourism Plan for Catalonia 2013-2016 and the National Tourism Directives 2020.

It establishes the mission of **making the Catalonia tourism brand more powerful and making tourism more profitable** for our country. It is thus a model that prioritises increasing income from tourism over increasing the number of tourists. For the year 2015 it sets a quantitative target of 15% growth in each of the following four indicators: income from tourism, daily spending by tourists, deseasonalisation and the weight of the brand. To achieve these objectives the Plan defines eight strategies comprising 34 tactical measures.

The main vectors for transformation contained in these strategies are:

- Tourism should be geared to demand. This implies changing the model for promoting tourism, which has traditionally been developed based on supply, so that it is formulated in terms of market needs.
- Customer loyalty and retention should be prioritised as a key aim in promoting tourism, over attracting large numbers of tourists.
- Marketing should be the final step in the cycle of promoting tourism: action should not be limited to positioning the brand; it must help to market our products.
- Tools to promote tourism, which have up to now been mostly off-line, need to be predominantly online and aimed at the end consumer.

These developments in the marketing of tourism in Catalonia call for a radical change in the culture of the sector and in the way the promotion of tourism is understood, and the tourism authorities in Catalonia must take the lead in bringing about this change.

3.1.2.1 Objectives of the 2013-2016 strategic Plan

Objectives for 2016

The priority objectives of the Strategic Plan for 2016 placed strong emphasis on improving indicators for the quality of tourism:

1. Increasing daily spending per tourist
2. Increasing total revenue from tourism
3. Increasing revenue outside the high season (September to June)
4. Increasing the average length of stay per tourist
5. Increasing the repetition rate per tourist



6. Increasing tourist satisfaction levels
7. Reducing the amount of obsolete accommodation on offer
8. Increasing the power of the Catalonia brand
9. Improving the regional balance of GDP from tourism
10. Improving the use by tourists of our natural and cultural heritage along sustainable lines

Tourism model

The size of the tourism sector in Catalonia makes it impossible to renounce a model based on quantity, but a decisive commitment is called for to improve quality by promoting tourism with greater added value in economic, cultural and environmental terms. The Strategic Plan will thus prioritise measures designed to promote growth in terms of quality.

The action plan comprised five programmes with 15 sub-programmes and 37 projects. For the purpose of this analysis and given their relevance we would single out three measures.

- 1) The launch of a sectoral plan for tourism in the region.
- 2) The development of a plan to encourage tourism in protected natural spaces in Catalonia.
- 3) A reduction in the availability of illegal tourist accommodation.

We shall deal with the first two points in another section. Reducing the availability of illegal tourist accommodation is the most important measure implemented in recent years.

An idea of the volume involved can be gained from the fact that it has been estimated that there may be as many as 500,000 illegal beds for tourists, that is, accommodation that is not reported to the local authorities, with consequences in economic, social and environmental terms.



3.1.3 Plan to foster nature tourism in Catalonia's protected areas.

The Strategic Tourism Plan 2013-2016 and the Catalan tourism directives 2020 specified amongst the objectives an improvement in the use of natural and cultural resources in the tourism industry.

The creation of a master plan that specifies how to go about planning the development of tourism in natural areas is included in this directive and in the programmed actions.

It should be remembered that the strategic plan deals with the issue of sustainability outlining clear principles: not to promote quantitative growth (number of tourists), but rather a growth in quality. This will be achieved by targeting a type of tourism that is a consumer of tourism products that will enable the restoration of territorial balance and that will also boost the local economy, based on the enhanced development of activity in the tourism sector itself.

It was on these premises that the Plan to encourage nature tourism in Catalonia's protected areas was approved in 2015, to promote ecotourism in this destination.

The objective of the plan is to position Catalonia as a leader in nature tourism in the Mediterranean region by 2020. And this objective will be achieved by optimising the value of its natural, cultural and landscape resources and contributing to local and regional development.

Nature tourism is identified as being ecotourism, a form of tourism with the main aim of actively enjoying, observing and learning about nature and associated cultural traditions in a way that is respectful to the environment and the local population. Using this definition as a point of departure helped us connect with the objectives and values promoted by the protected natural areas themselves.

The challenges identified in the diagnosis carried out were:

- 1) To go from being fragile and threatened protected areas to being conserved and valued

heritage. There can be no question that the ENP (protected natural areas) contain a rich diversity range of habitats, species, landscapes and natural phenomena in a relatively small area located close to urban population centres. But another key point is that the process of optimising the ecotourism value of the natural and cultural heritage should take into consideration its fragility in the face of possible impacts.

- 2) From having unsustainable facilities to having optimised services to revitalise tourism

promotion and development. The ENP have an extensive network of public facilities for receiving visitors, with signage and heritage interpretation centres that differ greatly in quality, and should be much better integrated into the range of tourism services and



products on offer. Inland access and mobility should also be improved with public transport.

3) From being a sector with potential to being a consolidated sector. This is one of the challenges that has been worked on most intensely. The ENP network offers a range of diverse activities and nature products that can be enjoyed all year long. Their variety permits the deseasonalisation of tourism in the region, vital for a destination such as Catalonia.

Therefore the challenge being worked on is that of achieving a more professionalised sector that enables the sustainable exploration of the natural resources. The sector consists of small enterprises, in many cases microenterprises, with very high levels of knowledge and specialisation in the natural product, but that need help to specialise in the aspect of tourism itself.

4) From being described as Catalonia *has* nature to positioning ourselves as Catalonia *is*

Nature. Tourism in protected natural areas needs to have its own identity as a tourism brand. Catalonia has to improve its positioning with a commitment to promotion, marketing and the commercialisation of its products.

5) From being a sector with little planning to having cross-cutting and coordinated tools

and information of greater quality. This challenge is met with a clear commitment to the European Charter for Sustainable Tourism (ECST) as a voluntary accreditation system, which, due to its methodology, is a basic tool for nature tourism planning and dialogue with regional actors to drive local economic development.

This is the objective shared amongst managers of natural parks and tourism: a commitment in terms of human and also economic resources so the parks can achieve ECST certification. There are currently six parks in Catalonia accredited by the European Charter.

6) From competition amongst micro-enterprises to a competitive business cluster working

in a network. It was mentioned in a previous point that the composition of the sector at a business level consists of small enterprises, in many cases individual businesses who, because of their size, cannot successfully carry out the process of marketing and the creation of the ecotourism product. We therefore need tools such as business clusters and coordination between the various tourism administrations and natural heritage management.

Having identified the six challenges, the process of achieving the objective of unequivocally positioning Catalonia as a nature destination is to be accomplished by applying a more specific action plan, in which 50 key actions are identified. The key objectives and principal activities



are:

Objective 1

– To encourage a type of tourism that makes sustainable and responsible use of the natural and cultural resources involved in nature tourism.

- Map of 50 natural resources and 25 top destinations for ecotourism in Catalonia.

Objective 2

– To optimise ENP infrastructures, facilities and public services used for nature tourism.

- Cataloguing public access and a plan to improve signage and other ENP facilities with new quality standards, to become part of the ecotourism range of services and products as well as strengthening the network of informants.
- Pilot projects of facility adaptation for ecotourism use by persons with special needs (reduced mobility, etc.).

Objective 3

– To consolidate a diverse and competitive range of products and services with coresponsible and high-quality suppliers.

- Catalogue of top ecotourism experiences for each ENP in Catalonia.
- Dedicated workshops and campaigns with travel agents to promote new products and multi-agent packages.
- DB of companies and training programmes and of standardised quality accreditation of ENP nature guides.

Objective 4

– To appeal to the growing domestic and international demand for nature tourism with an integrated and differentiated communication and promotional strategy.

- Seal of approval for destinations and suppliers of nature tourism in Catalonia.
- Tourism communication plan and joint promotional tools (web and app) for the ENP managed by the Government of Catalonia.



Objective 5

– To innovate and make nature tourism planning more cross-cutting and guarantee its correct monitoring.

-Process of regulatory and administrative optimisation for nature tourism entrepreneurs.

-Boosting specific ecotourism projects using funds for plans for the regional promotion of tourism.

Objective 6

– To create stable and effective collaboration frameworks between the public and private actors who bring together and strengthen the nature tourism sector.

-Taula de l'eco-turisme a Catalunya, a cross-cutting platform: public-private framework of participation and dialogue between actors.

-Working group of public institutions in nature tourism.

-Support network and cluster of businesses and ecotourism professionals.



4. CONSERVATION POLICIES

Catalonia does not possess a specific law for the conservation of its natural heritage and therefore Spanish state legislation is applicable through Law 42/2007 on Natural Heritage and Biodiversity.

Nevertheless, there are currently two law proposals in the Catalanian Parliament: one to approve the Strategy for Natural Heritage and Biodiversity in Catalonia, and another for the creation of the Catalan Nature Agency.

- Strategy for natural heritage and biodiversity in Catalonia. When the law is passed, the Strategy will set out the framework for the future law in this area, that will be based on the following governing principles:

1. To know more to enable better management – evaluate the natural heritage, organise and divulge information, and identify trends.
2. To conserve natural heritage within the climate change scenario – protect areas, recover species, restore ecosystems, manage humanised spaces and stop the loss of biodiversity associated with human activity.
3. To implement a territorial model that is compatible with the conservation of natural heritage and consistent with the United Nations' Sustainable Development Goals.
4. To redirect sectoral policies and introduce nature conservation goals into them.
5. To review natural heritage governance – improve the administrative structure and establish a legal and fiscal framework to support conservation.
6. To involve society and make it an active and committed stakeholder.

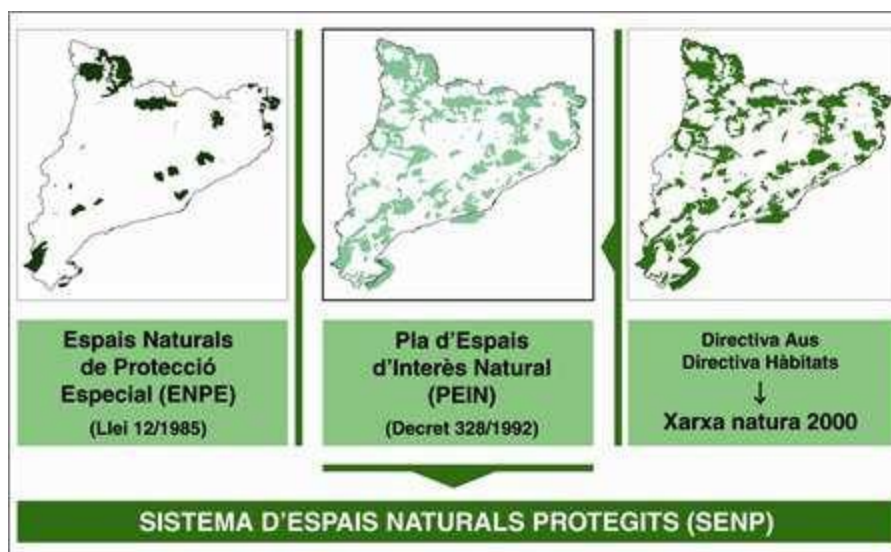
- Catalan Nature Agency. The law specifies the creation of a new body that will be responsible for spearheading the protection, planning, management, recovery, improvement and study of Catalonia's natural environment, both terrestrial and marine. The objective is to promote the conservation of natural heritage, biodiversity and geodiversity using criteria of integrity, sustainability, permanence and efficiency. It is an independent structure, like those that already exist in other areas of environmental policies in Catalonia, such as water and waste, that already have their own agencies.

System of protected natural areas in Catalonia

The system of protected natural areas in Catalonia (SENP) is one of the principal components that support the conservation of biodiversity in Catalonia. The protected natural areas in Catalonia have been defined by their geomorphological or landscape characteristics and by their richness in species of flora, fauna and habitats, and, between them, are host to the ecosystems that are in the best state of conservation, with a greater biodiversity of organisms and habitats and more representative of Catalonia's heritage.

In Catalonia, the system of protected natural areas is currently configured in accordance with the model established by Law 12/1985, of 14 June, on natural areas, which includes three elements:





Natural Areas of Special Protection (ENPE) (Law 12/1985)

Plan for Areas of Natural Interest (PEIN) (Decree 328/1992)

Birds Directive Habitats Directive Natura 2000 Network

SYSTEM OF PROTECTED NATURAL AREAS (SEN)

- **Plan for Areas of Natural Interest (PEIN).** On the one hand, this Law provides for the *Plan for Areas of Natural Interest*, a regional plan of a sectoral nature that seeks to establish a system of protected natural areas that are representative of the richness of the landscape and biological diversity in Catalonia, and providing basic protection to these areas.

All areas in the system of protected natural areas in Catalonia are included in the PEIN. The PEIN currently comprises **184 natural areas** and seeks to protect the geological heritage, habits and ecosystems that are most representative and best conserved in Catalonia. The accumulated surface area in these protected areas is 1,020,551 hectares and is roughly equivalent to 32% of the area of Catalonia. Marine areas add another 85,628 hectares.

- **Natural Areas of Special Protection (ENPE).** On the other hand, the Law stipulates a second level of protection: the *Natural Areas of Special Protection* (national or natural parks, reserves, etc.). These areas, that are also included in the PEIN, enjoy a specific system of protection and management, as well as the basic protection established by the PEIN. The surface area of the **Natural Areas of Special Protection** is 28% of the surface area of the PEIN. The fact should also be taken into account that the majority of the PEIN areas (95% of their surface area) form part of the **Natura 2000 Network**, as a consequence of European

Union legislation that seeks to protect habitats and species of community interest at a European level. In accordance with Law 12/2006, concerning environmental issues, the inclusion of an area in the Natura 2000 Network signifies its integration into the PEIN. The approval of the Catalan proposal of Natura 2000 (Government Agreement 5/9/2006) resulted in a significant expansion of the PEIN.

- **Natura 2000 Network.** The Government of Catalonia has incorporated 188 areas into the Natura 2000 Network, 115 as a Special Area of Conservation (SAC) and 73 as a Special Protection Area (SPA) for Birds (data from 31 December 2015).

In more general terms, the Special protection plan for the environment and landscape is another of the measures planned for the protection of the natural environment and the landscape. These plans can include specific rules on planning and protection that enhance the basic protection established by the PEIN, or to establish global planning in the scope of the ENPE.

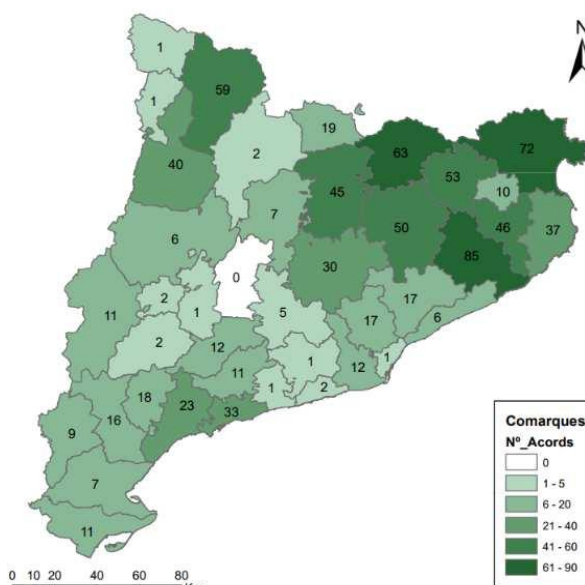
Connectivity and Green Infrastructure To maintain the richness, biodiversity and ecological functionality of the system of protected natural areas, and from the perspective that natural areas are not conceived as relictual islands disconnected from the land that surrounds them, it is essential that this becomes a truly connected network. Many of the territorial planning tools mentioned earlier already incorporate this connective requirement.

Moreover, the Government of Catalonia has recently made a commitment to future policies, or rather, current policies, by incorporating Green Infrastructure (IV) into the different territorial levels. IV is the network of natural and semi-natural zones and other environmental elements, strategically planned, designed and managed by the provision of an extensive range of ecosystem services, amongst which is the connectivity of the system of protected natural areas.

Private conservation: land stewardship

In Catalonia, the conservation of nature and the landscape is not the sole responsibility of public administrations, civil society can also play its part. Land stewardship is a set of strategies and tools that enable owners, bodies, businesses and land users to participate.

In Catalonia, there are 77 bodies that have 844 contracts with private owners to conserve their natural assets on their country estates, occupying an area that covers 42,904 ha (Map 2, with data from 2015).



The Land Stewardship Network (xct) is an organisation that empowers these bodies so they can play an active and direct role in the conservation of the land. The xct has a working group that specialises in marine and shoreline stewardship, whose objective is the conservation of natural assets in the public maritime and maritime-terrestrial domain through private initiative.

Regulation of activities in the natural environment

Beyond the laws on land-use planning, on the protection of natural areas or sectoral regulation, in Catalonia there is also a series of laws to regulate the uses of the natural environment. Some of the most noteworthy are:

- **Regulation of activities.** Decree 148/1992 regulates the photographic, scientific and sporting activities that can affect species of wild fauna, both inside and outside the protected natural areas.
- **Assessment of the environmental impact of activities.** Law 20/2009 ensures that there is the appropriate prevention and environmental control of activities, both inside and outside the protected natural areas.
- **Assessment of the system of protected natural areas in Catalonia**

With the aim of improving natural heritage conservation and introducing a process to assess the management of protected natural areas, in 2008 the Catalan Natural History Institution (with the support of the Government of Catalonia) independently and rigorously carried out the First assessment of the system of protected natural areas in Catalonia, following the methodological framework proposed by the IUCN's World Commission on Protected Areas. The main conclusions of this assessment can be resumed as follows:

- **Design and planning**

- This is a very complex system with up to 10 types of different protection categories that overlap in the area.
- The system suffers a serious imbalance between the types of low and high protection, with a predominance of low levels of protection.
- Only 18% of the protected areas are managed efficiently, with a management plan or management body.

- **Management resources**

- The resources directed towards the management of the areas are clearly insufficient.
- Only 36 of the areas carry out active land management. The rest only apply a passive/preventative type of management.
- The lack of resources has given rise to the creation of municipal consortia or the emergence of private land conservation or stewardship.

- **Management performance**

- Overlapping of the competences of different administrative bodies in the same area, often with objectives that do not always coincide with or complement one another.





- Conservation is secondary to urban planning.
- Ineffective sanctions system.

In order to improve the system the authors formulated two of the proposals with which the Government of Catalonia is now working:

- To approve a specific law on natural heritage and biodiversity to reform, simplify and update the current legal framework.
- To create the *Catalan Nature Agency* to reorganise the structure of the competent Administration and provide it with the necessary resources to make it more agile and effective.



5. VISIONS AND TRENDS

5.1 Third report on Climate change in Catalonia: Marine and coastal ecosystems

The Mediterranean is a semi-enclosed sea with increasing pressure from human activities along the shoreline. These two aspects make it particularly vulnerable to climate change. Multidecadal observations show that the Catalan sea is warming up at a rate of 0.3°C per decade, accompanied by an increase in the sea level of nearly 4 cm per decade. Modelling studies suggest that almost half of this warming trend is due to anthropogenically-driven global warming.

These progressive changes, together with occasional overheating events and an increase in fall windstorms have severe effects on marine ecosystems. Littoral coralligenous communities, mainly composed of sessile and slow-growth organisms, undergo massive mortality from which they take long to recover. The extension of *Posidonia* meadows is sensitive to both temperature and variations in sea level.

In the pelagic ecosystem, the potential increase in phytoplankton carbon fixation does not yield observable increase in net plankton productivity because respiration increases as well. Among bottom and water column organisms, a northwards shift is observed of species characteristic of the Catalan littoral, while southern thermophile species are becoming more abundant. Mild winters, decreased rainfall and warmer summers favour the occurrence of jellyfish swarms near the seashore. Also, blooms of some toxic microalgae can be triggered by warmer and calmer waters. A number of these observed and predicted changes represent threats on marine ecosystem services to society cultural references, direct economic resources (fishing, tourism), protection against erosion, uptake and storage of atmospheric CO₂, potential pharmaceutical or industrial use of genetic and metabolic richness, etc. Unfortunately, climatic agents act synergistically and push in the same direction as many other anthropic agents.

We therefore recommend that efforts towards global warming mitigation are accompanied with efforts towards improving and regulating activities with strong environmental impacts, such as some fishing practices, pollution, recreation or construction. It is mandatory to develop strategies that favour investment into scientific research, monitoring practices and into protection of unique habitats.



5.2 Third report on Climate change in Catalonia: the impact of future climate scenarios on the tourism industry in Catalonia

International research on tourism and climate change shows a growing interest in the relationship between the two. In Catalonia, where tourism is a leading strategic industry, there is a need to know how future climate scenarios will affect the two main tourism sectors: sun tourism and snow tourism.

Sun and sand tourism

Sun and sand tourism is one of the most sensitive forms of tourism to weather and climate and there is a clear relationship between tourist numbers in specific coastal and inland regions and the atmospheric conditions. On a more detailed level, studies have shown that density of beach use is mainly affected by maximum temperatures and hours of sunshine. In this context, bearing in mind future climate scenarios, if sun and sand tourists continue to behave in this way with regard to atmospheric conditions the negative impact on this form of tourism would be minimised.

Various studies suggest that only the extreme south of Catalonia will register a loss of climate comfort due to excess heat in midsummer compared to the reference period (2006-2020/2021-2050). It should also be borne in mind that improved summer climates with potential impact on tourism on the northern coasts of the Iberian Peninsula and in the north of Europe could lead to the rise (or return) of new competing destinations, at least in terms of climate.

Law 13/2002, of 21 June, on Tourism in Catalonia considers the whole coast, and the beaches in particular, an essential tourism resource for promoting Catalonia as a tourist destination. In this context, the availability of the beach resource and potential recreational demand need to be established in order to guarantee the sustainability of sun and sand tourism.

Availability of the beach resource

As discussed in the Green Paper on the State of the Catalan Coastal Zone (2010), although sediment transfer varies along the coast and a number of beaches undergo accretion, the trend over time on beaches on the Catalan coast is clearly erosional. This continuous reduction in the beach resource, combined with the increase in the tourism offer and potential recreational demand could threaten satisfaction with beach use and hence the competitiveness of tourism.

Potential recreational demand

In terms of demand, the main effects of climate change on the increase in water consumption arise from the mean increase in high temperatures.

Water is essential for economic activity and tourism is no exception. The availability of water, in terms of both quality and quantity, is essential to the tourism sector. Tourists require water to meet their basic needs, but also for sport, leisure and health activities, such as swimming, golf and visits to water parks and spas. Water is also a tourism resource: as a central element in the landscape visited by tourists; in hotel and campsite gardens and green spaces; and in natural



areas on the coast, such as wetlands and river environments.

Water restrictions or poor quality water can negatively affect the image and competitiveness of destinations, as shown by the recent water crises suffered in Benidorm (2013) and Majorca (2002), which led to a drop in numbers to these destinations.

Snow tourism

Recent years have continued to show how mountain areas are especially vulnerable to the effects of climate change. Although this is a further factor affecting winter tourism, the presence or lack of snow, the thickness of the snow and its duration are key indicators for assessing the viability and sustainability of the winter tourism sector. For this reason, assessing the effects of climate change, in terms of natural snow cover and snow production capacity, is fundamental to assessing the socioeconomic impact in mountain areas where in many cases skiing has become the main motor of local economies.

Economic expenditure on this type of tourism in mountain regions is so important it has become the economic motor for the associated areas. In global terms, skiing in Catalonia represents 1% of the volume of business in Europe and 40% in Spain.

Based on the work by Pons (2014), for the first time in Catalonia we now have systematic models to establish the natural and technical viability of Pyrenean ski resorts based on four main considerations:

- 1) The consideration of three scenarios: one based on the present, represented by current mean temperatures, and two others involving temperature increases (+ 2 degrees and + 4 degrees, respectively).
- 2) Natural viability, based on the generally accepted criterion that a ski resort is viable if it has a snow cover of at least 30 cm for a minimum of 100 days per season.
- 3) Technical viability or the capacity to manufacture snow in the three aforementioned scenarios.
- 4) Finally, a classification of ski resorts, based on how vulnerable they are in the three scenarios (high, low and resilient).

In general, by area of the Pyrenees, the most vulnerable resorts are the lowest ones with predominantly south-facing slopes. With regard to technical viability, bearing in mind that climate change not only affects the number of days with natural snow but also the number of days with the minimum necessary conditions to manufacture snow, the results show no great variation: all resorts are viable in the first scenario, while in the second, those that were not



viable previously remain so and in the third, only Baqueira would be saved.

In the second scenario, manufacturing snow is a strategy that would contribute significantly to the length of the ski season in many Catalan resorts. Conversely, in the third scenario, at +4 degrees, the strategy would be significantly less viable, due to limitations caused by such a temperature rise with regard to efficient snow production, leaving the strategy largely ineffective.

DEVELOPMENT OF THE APPLICATION OF ADAPTATION STRATEGIES

Sun and sand tourism

Deseasonalisation and diversification of tourist activities

Diversification of tourism products is a key strategy for adapting to climate change in the areas of policy, management practices and business models. Diversification of product lines is not only a strategy for climate change but also a key practice to combat the exhaustion of the mass sun and sand model and to renovate, reclassify and restructure many consolidated tourist destinations.

Coastal protection

A diverse coastal morphological structure and various urban and economic developments have produced different models of tourism and regional growth. In broad terms, there has been a predominance of residential property development, above all affecting the sea front, over-exploitation of the coastal resource for developing economic, social and leisure activities and extreme compartmentalisation of the space, in which everything has to fit: 42.81% of the inhabitants of Catalonia (2014), 77.96% of hotels, 9.92% of camp sites and 55.43% of second homes are located in the 70 coastal municipalities.

Adaptation measures introduced in recent years have been adopted by each municipality in accordance with the characteristics and risks faced by each. Some focus policies on protecting or stabilising their coast through the construction of defensive breakwaters parallel to the coast, groynes between beaches, reinforcing retaining walls between the promenade and beach or artificial regeneration of lost sand. Others opt for maintenance and cleaning actions in ravines and riverbeds, planning each section of the coastline based on exposure to storms, conservation or restoration of beach dune systems, introducing green transition areas between the beach and town, or employing flood-protection measures. These are hard and soft measures that must be combined to improve the resilience of a narrow stretch of coastline that is highly prized for tourist use in particular.

Water saving, non-conventional water use and strategies to increase water supply

The implementation of the programme of measures arising from the River District Management Plan for Catalonia, approved in November 2010, includes the aim of guaranteeing a larger supply to tourist coastal towns. Resulting actions combine desalination, reuse, recovery of aquifers, network interconnection and improved efficiency.



Despite the general absence of specific data on water consumption in the tourism industry, studies carried out in a number of tourist towns, establishments and facilities in Catalonia show that there has been a significant reduction in water consumption for tourist use, very similar to other tourist towns on the Spanish Mediterranean coast. This reduction is explained by a number of factors, including the economic crisis and the rise in the price of water, institutional and technological innovations applied to water management, changes in consumption habits among tourists and the growing awareness in the tourism industry of the importance of water savings. The appearance in recent years of examples of good practices in the tourism sector with regard to efficient water management shows that the application of water efficiency technologies could produce between 20% and 30% savings in tourist establishments and facilities.

Snow tourism

Increase in artificial snow manufacturing capacity and skiable areas

The increase in the capacity to manufacture artificial snow means the number of snowy slopes and the size of the skiable area have increased (8, 6 and 13.6%, respectively).

Deseasonalisation and offer diversification: transition from ski resorts to mountain resorts

This strategy is the one that closely matches the idea of tourism deseasonalisation, as it involves strengthening other activities involving snow (rather than just skiing).

DEVELOPMENT OF THE APPLICATION OF MITIGATION STRATEGIES IN CATALONIA

The tourism sector is responding in different ways to the effects of climate change. In Catalonia there are hotels, campsites, marinas, etc. that apply measures for energy saving and efficiency and reducing greenhouse gas (GHG) emissions, among other actions, thanks to the implementation of environmental certification.

The tourism market segment most sensitive to the application of energy saving and efficiency measures in Catalonia is the marinas; over 41% have implemented an environmental management system (EMS). Measures taken to reduce energy consumption and GHG emissions are publicised through Eco-Management and Audit Scheme (EMAS) environmental statements.

Most towns on the Catalan coast, and not just tourist towns, have opted for certifying their main beaches with environmental awards, especially the popular blue flag, to improve sustainable management of the recreational function of the beach. The temporary nature of this award, limited to the bathing season, incentivises coastal towns to combine the blue flag with the EMS. Towns that have an EMS take action on their beaches such as strengthening rational use of drinking water, promoting energy efficiency in municipal facilities and calculating CO₂ emissions



by cleaning services.

5.3 Creation and application of a system of tourism indicators for the sustainable management of destinations. Model applied to the province of Barcelona based on the European commission's European tourism indicators system (ETIS)

The creation of a system of tourism indicators for the sustainable management of destinations in the province of Barcelona and the preparation of an implementation protocol ensures that Barcelona Provincial Council (DIBA) has a useful tool for improving the efficiency of its territorial management processes (local and county) for tourism.

The results enabled shortcomings with regard to the sustainability of tourism to be identified and approaches and measures to be determined and transferred to businesses' and institutions' specific decision-making processes, thereby improving the management of tourist destinations. The study and subsequent application of the Tourism Indicators System covered 35 'tourist destinations': the province's 10 counties, excluding El Barcelonès, due to its special nature; the 11 municipalities designated as county towns (including the municipalities of Sabadell and Terrassa in El Vallès Occidental, which is treated as having two county towns) and 15 other municipalities.

Carrying out and implementing the project involved:

1. Producing an analysis of the nature of tourism in the destinations within Barcelona province.
2. Classifying tourist destinations in accordance with the principles of sustainability.
3. Generating knowledge to underpin and encourage decision-making in tourism management to make tourist destinations and businesses more sustainable.
4. Developing a tool (coordinated instruments) focused on the sustainable management of tourist destinations.
5. Creating a long-lasting structural tool which must be used on a continuous basis and regularly updated in order to be effective in achieving its aim of ensuring tourist destinations are sustainable and remain so in the future.

The Tourism Indicators System (SIT) for the sustainable management of destinations in Barcelona province comprises three main coordinated instruments:

- a) A **Tourism Indicators Database** for the assessment of the sustainability of tourism at municipal and county levels, allowing comparative analyses to be performed across cases (a group of destinations) and the analysis over time of a single municipality or county.
- b) **An aggregated index: Sustainable Tourism Index (ISOST)** to provide an overall understanding of the results and a global score for the sustainability of tourism in each destination (municipality and/or county). This involves obtaining a statistical summary (synthesised data) in the form of a single, simplified score for the sustainability of tourism in



each municipality. The score allows comparison between different municipalities or across time within a destination. The index is applied at two levels, municipality and county, and includes coastal, mountain and inland municipalities. It does not include the Barcelona and Barcelonès destinations. The calculation of the Sustainable Tourism Index (ISOST) allows destinations to be ranked according to how sustainable tourism is in the destination (in environmental, social and economic terms).

INDICATORS

ID	INDICATOR	CALCULATION
Socio-cultural aspects:		
1	Tourist population	% ETP
2	Diversity of tourist attractions and resources	Number of different categories of tourist resources
3	Tourism products suitable for people with disabilities	Number of different types of adaptation for people with disabilities
Economic aspects:		
4	Seasonality of tourist facilities	% tourist beds available (yearly average)
5	Presence of second residences	% second homes
6	Daily spending per tourist	Euros / tourist per day
Environment aspects:		
7	Energy consumption	Consumption kWh / PTP / day
8	Water consumption	Consumption litres / PTP / day
9	Waste generation	Waste kg / PTP / day
10	Land use	% urban land
11	Tourism establishments with environmental certification	% certified tourist accommodation establishments
12	Tourism strategies / action plans in place	Number of tourism planning instruments

The key ISOST indicators are:

Indicator 3 Tourism products suitable for people with disabilities, fostering a tourism model that is inclusive and makes tourism more socially sustainable. More work is needed on developing accessible tourism in Catalonia and tapping into this potential market. *Indicator 6 Daily spending per tourist*, highlighting the economic efficiency of the destination. Improving the quality of a destination may help to attract tourists with greater spending power. *Indicator 11 Tourism establishments with environmental certification*, indicating how aware tourism businesses are about improving the environmental sustainability of their facilities. This indicator only covers part of the accommodation sector and certification is voluntary. Tourists are becoming ever more demanding and this type of certification may attract new customer segments.

RESULTS:

Vic is the most sustainable tourist destination and Pineda de Mar and Calella are the least sustainable. Certain links can be identified between the level of sustainability and the tourism model developed or the socio-cultural feature of a destination.

The coastal destinations most associated with traditional sun and sand tourism (Santa Susanna, Malgrat de Mar, Calella and Pineda de Mar) tend to be categorised as less



sustainable, mainly on the basis of social and economic indicators.

They have a high, and very seasonal, tourist population which puts great pressure on the area, its resources and the local community. Tourist spending is relatively low and extremely seasonal, impacting on the economic sustainability of the destination. The environmental aspect is less critical, these municipalities contain a considerable number of tourism establishments with environmental certification and most of them have tourism plans to ensure tourism is properly integrated.

The ISOST indicator for the province's mountain destinations (Berga, Rupit i Pruit i Castellar de n'Hug) is also below the average, but in this case it is rather related to the fact that tourism is still developing there or because they are traditional destinations that have not yet adapted to new forms of tourism. There is little accommodation available in these destinations and tourist attractions and resources are not very diversified. In addition, they lack tourism products suitable for people with disabilities and establishments with environmental certification, resulting in lower overall indicators.

The highest levels of sustainability are found in the more urban nature destinations (Vic, Sant Cugat del Vallès, Terrassa, Manresa, Sabadell) thanks to a more diversified economic structure and internal dynamics that offset the negative impacts of tourism. The multifunctional nature of these cities means they can offer a wide range of tourism products throughout the year, minimising the seasonality of the sector. The resident population is also numerous, so the tourist population does not cause excess pressure, while tourist spending is habitually higher than average. With regard to environmental aspects, although the surface area of the urban land included in the corresponding indicator is often an impediment to sustainability, the indicators are boosted thanks to the optimal use of facilities and the efficient exploitation of resources (water and energy) and efforts to reduce the production of waste. This type of tourist destination also benefits from tourism planning that effectively contributes to regulating tourist activities within existing structures. This is treated as a positive indicator when calculating ISOST scores.

MEASURES TO IMPROVE INDICATORS:

Encouraging establishments to obtain environmental certification, recognising destinations' efforts to improve sustainability, increasing the number of tourist attractions, reducing seasonality, diversifying the services available to increase daily spending (in coastal destinations) and fostering tourism planning in destinations where this is lacking (10 out of 25).

The European Tourism Indicators System (ETIS), created by the European Commission, serves as a tool for providing data to aid decision making related to the sustainable management of destinations (municipalities and counties). This has enabled stakeholders to measure and control sustainability management processes, to share their achievements and results and submit them for comparative evaluation. The basic principle of the ETIS indicator system is that destination responsibility, ownership, and decision-making is shared.

Section A: Destination Management Indicators

13 -% destination with a sustainable tourism strategy/action plan with agreed monitoring,



development control and evaluation agreement.

14 -% tourism establishments using a voluntary verified certification/labelling for environmental/quality and/or CSR measures

15 -% visitors that are satisfied with their overall experience in the destination.

16 -% visitors who note that they are aware of destination sustainability efforts.

Section B: Economic value indicators

17 -Number of tourist nights per month.

18 -Daily spending per tourist (accommodation, food and drinks, other services).

19 -Average length of stay of tourists (nights).

20 -Occupancy rate in commercial accommodation per month.

21 -Direct tourism employment as % of total employment.

22 -% tourism enterprises inspected for fire safety in the last year.

23 -% tourism enterprises actively taking steps to source local, sustainable, and fair trade goods and services.

Section C: Social and Cultural Impact Indicators

24 -Number of tourists/visitors per 100 residents.

25 -% men and women employed in the tourism sector.

26 -% commercial accommodation with rooms accessible to people with disabilities and/or participating in recognised accessibility schemes.

27 -% visitor attractions that are accessible to people with disabilities and/or participating in recognised accessibility schemes.

28 -% destination covered by a policy or plan that protects cultural heritage

Section D: Environmental Impact Indicators

29 -% tourists and same day visitors using different modes of transport to arrive at the destination (public/private and type).

30 -Average travel (km) by tourists to and from home or average travel (km) from the previous



destination to the current destination.

31 -% tourism enterprises involved in climate change mitigation schemes and 'adaptation' responses and actions.

32 -Waste produced by destination (kg per resident per year or per month).

33 -Volume of waste recycled (percent or per resident per year).

34 -Percentage of sewage from the destination treated to at least secondary level prior to discharge.

35 -Fresh water consumption per tourist night compared to general population water consumption per person night.

36 -Energy consumption per tourist night compared to general population energy consumption per person night.

37 -% destination that is designated for protection.

38 -The destination has policies in place that require tourism enterprises to minimise light and noise pollution.

39 -Level of contamination per 100 ml (intestinal Enterococcus, *Escherichia coli*)

It has not been possible to apply indicators 20, 22, 23, 31, 35 and 36 in Barcelona province. It is not always possible to apply these indicators given the varied nature of European tourist destinations.

RESULTS (MUNICIPALITIES)

Section A: Destination Management Indicators

Over half of the destinations (68%) have some form of tourism planning in place. A high level of satisfaction was recorded among tourists visiting the destinations.

Certified tourism establishments still represent a small proportion of the total number (the majority of destinations have less than 20% of their accommodation establishments certified).

Section B: Economic value indicators

There are clear differences between destinations based on their geographic location. The volume of overnight stays is notably higher in coastal municipalities than for inland and mountain destinations and visits tend to be longer (especially for destinations based on a traditional sun and sand development model: Pineda de Mar, Calella, Malgrat de Mar and Santa Susanna). The number of people employed in the tourism sector is also high in these destinations, at around 10-20%. Despite these strong economic data, due to the aforementioned economic model, these destinations also have the lowest daily spending per tourist.



Section C: Social and Cultural Impact Indicators

There is significant mass tourism (volume of tourists compared with local residents) in the coastal and mountain destinations. In a majority of destinations, more than half of tourist accommodation establishments have rooms adapted for people with disabilities. 57% of the destinations analysed have a cultural protection instrument in place.

Section D: Environmental Impact Indicators

The tourist destinations in the metropolitan area and those nearest to it, and those with good public transport links. The more urban destinations are the most efficient with regard to the generation of waste. Water is treated to at least secondary level in all municipalities except Rupit i Pruit. With regard to the level of contamination of bathing waters, the poorest quality is found in the municipalities of Santa Susanna, Mataró and Badalona. The conservation of biodiversity is calculated from the area of protected areas of natural interest (PEIN), with the highest figures recorded for mountain destinations (Castellar de n'Hug, Rupit i Pruit) and one coastal destination (Sitges).

RESULTS (COUNTIES):

Section A: Destination Management Indicators Over half of the destinations (68%) have some form of tourism planning in place (average for all the destinations in the sample). As at municipal level, a high level of satisfaction among visitors was recorded.

Section B: Economic value indicators The indicators recorded for different counties vary widely, demonstrating the clear differences between counties with high levels of tourism and little tourism.

Section C: Social and Cultural Impact Indicators Differences were observed in two indicators: the number of tourists as a percentage of local residents and the percentage of tourist accommodation with rooms adapted for people with disabilities.

Section D: Environmental Impact Indicators The tourist tax and its distribution by county reflect, clearly, two variables that define the nature and dynamics of tourism in the province: tourist accommodation capacity and visitor flows (occupancy levels). El Maresme heads the ranking, with over three million euros collected, followed at some distance by El Baix Llobregat (over 900,000 euros). The lowest tax revenues were in L'Anoia (17,331 euros), L'Alt Penedès (21,115) and El Berguedà (62,847 euros).

MEASURES TO IMPROVE INDICATORS:

Raising awareness in the tourism sector of the importance of encouraging sustainable tourism, through communication campaigns, workshops, courses, etc. Putting special emphasis on promoting environmental certification and accessibility to facilities and attractions.

Encouraging the development of sustainable tourism networks that facilitate the exchange of best practices and the emergence of beneficial synergies between providers in the tourism





sector.

Publicising tourism enterprises' efforts in the area of sustainable tourism through a public data base or guide that promotes said businesses and helps visitors access sustainable tourism services



