Journal of Sustainable Tourism

The potential of international coastal mass tourism destinations to generate creative capital

Journal:	*Journal of Sustainable Tourism*
Manuscript ID	JOST-2181.R3
Manuscript Type:	Paper
Keywords:	Tourism destinations, Social change, Sustainable tourism, coastal tourism, creative class, urbanization process

Abstract:

This paper introduces a new line of research in international coastal mass tourism destinations. Such destinations have started to function in a more complex and potentially beneficial way, acting as transitional areas between the global city and local territory while at the same time developing their own unique characteristics. From this perspective, such destinations can potentially become environments for creativity and innovation, two factors that act as economic driving forces in the so-called 'knowledge society', thereby promoting the sustainable development of the destination from a socio-economic perspective.

The methodology used herein develops ten indicators that are calculated and mapped out for two case studies which examine the same geographical context and comparable populations in order to demonstrate the creative capacity of a location whose economy is heavily reliant on tourism. The results show that tourist destinations have greater potential for generating creative capital than non-tourist destinations. Therefore, the consolidation of international mass tourism destinations as creative and innovative spaces which are capable of generating creative capital without losing their competitiveness as tourist destinations merits a reconception of their current role in global-local networks.

The potential of international coastal mass tourism destinations to generate creative capital

This paper introduces a new line of research in international coastal mass tourism destinations. Such destinations have started to function in a more complex and potentially beneficial way, acting as transitional areas between the global city and local territory while at the same time developing their own unique characteristics. From this perspective, such destinations can potentially become environments for creativity and innovation, two factors that act as economic driving forces in the so-called 'knowledge society', thereby promoting the sustainable development of the destination from a socio-economic perspective.

The methodology used herein develops ten indicators that are calculated and mapped out for two case studies which examine the same geographical context and comparable populations in order to demonstrate the creative capacity of a location whose economy is heavily reliant on tourism. The results show that tourist destinations have greater potential for generating creative capital than non-tourist destinations. Therefore, the consolidation of international mass tourism destinations as creative and innovative spaces which are capable of generating creative capital without losing their competitiveness as tourist destinations merits a reconception of their current role in global-local networks.

Keywords: creative class, coastal tourism, urbanization process, sustainable tourism, tourist destinations

Introduction

After half a century of tourism development, important mass tourism destinations such as the Spanish Mediterranean coastline have become transformed into urban systems that are complex, open and dynamic. As Rullán states, "Some Mediterranean tourist areas are evolving from centres for holidaying central and northern Europeans into the outlying areas of strong urban regions connected to Europe, from isolated tourist enclaves to neighbourhoods of the sprawling European city" (Rullán, 2008: 610-611). Some of the transformations these tourist destinations have undergone go hand in hand

with changes in the contemporary lifestyle in global cities. Socioeconomic transformations provide an example. Firstly, such tourist destinations have been transformed into expanding urban areas that have broadened their functions and acted as catalysts for change in the surrounding areas while still remaining reliant on tourism (González Reverté, 2008; Romero et al., 2015). Secondly, the region that emerges as a result of such a transformation has a social makeup that is more diverse, tolerant and open, comprising both resident and transient populations. According to Florida's (2008) *creative class* thesis, these values are essential for encouraging creativity and innovation, which are key to the future progress of such regions, as innovation and creativity act as economic drivers of the knowledge society.

Cities have traditionally been hubs of innovation, not just because they have higher populations but also because their populations are more diverse. However, the increasing development of communication systems (both in terms of transport and information) has made it possible for other spaces to become centres of innovation as well. But while the global economy has erased the physical limits of global operating networks, location continues to be important within such networks. New operating limits have emerged and the global-local relationships established in such networks have at times become even stronger than the nodes (Borja and Castells, 1997; Sassen, 2004; Sennett, 2004). The current economic success enjoyed by certain places can thus be explained by the concentration of resources and the relationships granting access to such "materials/inputs" (Simmie, 2003, Florida, 2004; Esteban et al. 2006). Such places are similar to large metropolitan areas in that they function as nodes of knowledge, creativity and innovation networked to places of similar characteristics. At the same time, such nodes function as drivers of development for their surroundings. The level of mobility and flow of people, capital and ideas is very high in such networks and the social fabric tends to be more diverse, with openness and tolerance towards a wide range of groups and lifestyles (Florida, 2004; Borja and Castells, 1997).

In such a context, this study is largely conceptually oriented, aiming to introduce a new line of research on tourist destinations. It has been developed from the following hypothesis: international coastal mass tourism destinations acquire diversity, dynamism, capacity for innovation and creativity, fractally reproducing the functions of global cities in their surrounding geographical area, albeit on a smaller scale. The main cause

for this is that such tourist destinations have internal and external connections that give rise to significant flows of people, ideas and capital. Building on the theory of the creative class (Florida, 2004), this study presents a new focus on the relationship between tourism and creativity, centred exclusively on territorial implications (urban, economic, social and tourist-related). A comparative case study was performed on two areas in the Spanish Mediterranean, comparing the creativity index in the provinces of Malaga and Seville, which represent a mass tourism destination and a primarily non-tourist destination, respectively. In Malaga, the coastal area known as the Costa del Sol was chosen as an established international coastal mass tourism destination, one which has been marketed as a tourist attraction for over fifty years, one of the Mediterranean's most popular destinations and a region which is seen as a place of opportunity for entrepreneurs and investors. On the other hand, the province of Seville is home to the Andalusian region's governmental capital. It has a large and traditional metropolitan area and it is the most important city in the southern half of Spain but its economy is not based on tourism or tourist-related industries.

This study considers tourism from a holistic perspective, not just as a single economic activity but in relation to a region's other socioeconomic functions, analysing the tourist destination in its entirety. As a consequence, tourism and sustainable development are addressed from the point of view of destination sustainability. The results show the Costa del Sol's strong socioeconomic dynamism and its potential to generate environments that lend themselves to innovation and creativity, promoting sustainable development from a social and economic perspective, though significant challenges still need to be overcome in terms of environmental sustainability (Navarro-Jurado et al., 2012).

One of the most interesting questions that this research raises involves the relationship between creative capital and policies on sustainable tourism and urban renewal. Although the aim of such policies is to make tourist destinations more sustainable, the results show that creative capital can have both a positive and negative impact on sustainability. On the down side, certain creative capital, the so-called ‘creative elite’, lends itself to processes of the ‘growth machine’ (Logan and Molotch, 1987) in ways that can lead to political and business corruption. On the other hand, creative capital

tends to place a high value on the environmental quality of a location and therefore seeks to promote its conservation.

In this article the introduction provides a review of the literature on creative capital, looking at studies in a range of socioeconomic contexts. The methodology is then explained and adapted to the case study mentioned above. This is followed by a presentation of the main results and a set of conclusions and discussion points that intend to stimulate future research.

Creative capital

Traditional models of economic growth theory claim that an economy's growth is determined by the presence of companies, jobs and technology, which are grouped into the classic factors of work and capital. Over time these factors have been more broadly conceived to include new elements such as public capital (particularly infrastructure) and human capital (Pesquera et al. 2010). Human capital plays a key role but it should not be considered as a fixed productive factor that belongs to a given location like a natural resource, but rather as a highly mobile factor which should be considered more as a *flow* (Mellander and Florida, 2007).

The so-called creative economy has contributed to economic growth theory and is based on the generation of knowledge and new ideas. One of its proponents is Florida (2004), whose creative class thesis has been a subject of study, debate and critique over the past decade and continues to attract interest in the scientific community and among public leaders. Florida defines three factors of economic success that are key to an area's creativity: technology, talent and tolerance (the '3 Ts', as he refers to them). Technology and talent have been common factors in earlier theories explaining regional economic competitiveness and innovation, including theories on human capital and Schumpeterian innovation models (Simmie, 2003). However, Florida introduced tolerance as a new factor and it has proved to be the most complex (Ström and Nelson, 2010). Technology and talent require investment in order to generate and manage knowledge, but tolerance involves transformative changes in a society's own idiosyncratic makeup. The key elements of a tolerant society are social diversity, openness and the ability to integrate new people and ideas. According to the theory, the 3 Ts promote innovation, scientific and technological advances and the general

advancement of society. In short, "the economic leaders of the future […] will be the nations and regions within nations that can best mobilize the creative capacities of their people and attract creative talent from around the world" (Florida and Tinagli, 2004:12).

In this thesis the creative class is comprised of people that use creativity in their professional careers. Two groups of creative people are thus identified: the super-creative core, whose role is to generate new ideas, technology and/or content; and creative professionals, who draw on their knowledge and individual criteria to solve complex problems and who would also be placed in the core in comparison to other classes: the service class, working class and agricultural workers (Figure 1).

Figure 1. Classes

Source: Florida (2004). Prepared by the authors.

It is estimated that the creative class makes up approximately 2.5% of the world's population and between 25% and 30% of the population of advanced industrialised nations. It is an extremely mobile group that often relocates to areas where it can more readily develop its capabilities (Florida and Tinagli, 2004; Florida, 2004). The creative class is growing and is becoming concentrated in specific areas. Places that attract the creative class also attract companies in search of talented, creative people as a source of human capital that can help them to gain a competitive advantage. The creative class is also characterised by greater productivity and entrepreneurship, as well as higher levels of consumption due to its greater buying power (Pesquera et al., 2010). In sum, "creativity flourishes best in a unique kind of social environment: one that is stable enough to allow continuity of effort, yet diverse and broad-minded enough to nourish creativity in all its subversive forms" (Florida, 2004:35).

Certain places provide the conditions that are necessary to stimulate creativity to a greater extent than others, giving rise to the 'geography of creativity' (Florida, 2008), the 'geography of innovation' (Simmie, 2003) while also serving to explain uneven geographical development (Harvey, 2004). However, the importance of one's geographical location in a global economic context is nothing new, as seen in cluster theory, one of the most widespread and popularised theories in academic and political circles (Martin and Sunley, 2003).

The theory of creative capital also emphasises the importance of location. Location factors for the creative class are (Florida, 2008): (1) opportunities for work, professional development and social networks; (2) basic services of education, healthcare, security, housing and transport; (3) political and business leadership, the popularity and diversity of leaders, the decision-making process and the degree of openness and community participation; (4) values of tolerance, trust and self-expression; and (5) aesthetic factors, authenticity, leisure, and recreation and social energy. The first factors are covered by classic location factors (Lawton et al., 2012) but these factors do not consider the location's transport infrastructure and the degree of global connectivity, which are important considerations given the high mobility of the creative class.

Initial research on creative capital started in the USA using the indicators of talent, technology and tolerance to assess an area's creative capacity (Florida, 2004). Studies were later carried out in other geographical areas such as Australia (Berry, 2005), China (Li and Florida, 2006) and several European countries, including Ireland (Murphy and Redmond, 2009; Lawton et al 2013), Nordic countries (Ström and Nelson, 2010; Andersen et al, 2010, Clifton et al 2013) and Spain (Pesquera et al. 2010).

Tourism and Creative Capital

Scientific contributions on creative capital and tourism have focused on creative tourism as a product (Richards and Wilson, 2007; Richards, 2011; Korez-Vide, 2013). According to this approach, creativity in tourism is aimed at differentiation and sustainability, connected to the rise of the 'experience economy'. It introduces important changes such as the hybridisation of the roles of producer-consumer or, in the words of Richards and Wilson (2007), the emergence of the 'prosumer.' This paper, however, focuses primarily on the tourist destination itself and the urban, socioeconomic and tourist-related implications associated with creative capital.

The transformation of some international coastal mass tourism destinations has changed them into contemporary, cosmopolitan areas with global characteristics (interculturality, hyper-mobility, high external connectivity, strong demographic dynamism, etc.). Such destinations are associated with the main generators and transmitters of the global movement of financial capital, people and ideas. Recently, tourist studies (Agarwal,

2005, 2012; Larsen, Urry, Axhausen, 2007) have analysed destinations with a focus on global social networks and relational spatiality, where physical limits disappear, making way for global-local connections among territories. Destinations are nodes in a network where what matters is not their exact geographical position but their relative position in the network. The competitive advantages derived from this privileged position depend on a location's connectivity and its capacity to generate and transfer knowledge and information to the rest of the network (Agarwal, 2012). Thus, the economic, social and cultural dynamism of some destinations cannot be understood without taking into account their economic, social and cultural relationships with the global network. Furthermore, just as the lines separating leisure and work spaces are becoming increasingly blurred, so too are the figures of the contemporary citizen and the post-tourist progressively merging into one (Larsen, Urry, Axhausen, 2007). Other studies highlight the transformation of destinations in the context of post-Fordism (Ioannides and Debbage, 1998) and postmodernism (Urry, 1994; Gale, 2005).

On the Spanish Mediterranean coastline there are numerous examples of international coastal mass tourism destinations. Their connections with the rest of the world have practically converted them into neighbourhoods of global European cities like London, Berlin and Paris (Rullán, 2008). They are places that, after 50 years of development as tourist destinations, have changed from having limited roles as holiday resort towns to developing much wider roles with a strong impact on residential issues, infrastructure and connections, production, as well as the area's social makeup and its capacity for innovation. They are places that had already developed a wide range of non-regulated leisure activities and tourist accommodation, as well as a transport and communications system connecting the destination internationally (Antón, 2011). The vitality of some international mass tourism destinations in the Spanish Mediterranean, such as *Costa del Sol*, *Costa Blanca* or *Costa Daurada* (González Reverté, 2008, Romero, et al. 2015), contrast with the decline that various researchers predicted (Morgan, 1991; Knowles and Curtis, 1999; Poon, 1993), basing their predictions on deterministic evolutionary models.

The literature has traditionally employed the 'tourist destination life cycle' theory outlined by Butler in 1980 (Butler, 2011) to analyse the evolution of tourist destinations. According to this theory, destinations in the last phase of their

development seem destined either for decline, stagnation or renewal. However, one must first question whether or not this model is valid for all destinations, especially if they acquire a high level of urban maturity and complexity. Secondly, one must ask whether a destination needs unlimited growth in demand in order to be successful, given that renewal, according to Butler, requires a constant increase in the number of tourists. Thirdly, if the goal is to reach maximum levels of sustainable development, growth is arguably not always a suitable policy, since there is no such thing as unlimited sustainability (Saarinen, 2006). Therefore, this model has been criticised since the eighties for its conceptual, methodological and practical limitations (Getz, 1992; Haywood, 1992; Prietley and Mundet, 1998; Knowles and Curtis, 1999; Papatheodorou, 2004; Butler, 2011). Nonetheless, the model persists in the worlds of politics, tourist management and academia due to its simplicity and ease of understanding.

More complex theories exist, such as that of tourism restructuring (Agarwal, 2002), which take into account the changes from Fordist to post-Fordist production. The theory of restructuring fits better with international coastal mass tourism destinations that have evolved into complex territorial structures, areas with creative capital that allows restructuring to happen. To summarise, a new tourist space is being created that, in the words of Antón, is "a complex, multifunctional urban artefact that takes from tourism its sensibility towards leisure and landscape but integrates it into the everyday reality of the resident and the need for permanent employment" (2011: 24).

Territorial transformations in Spanish Mediterranean tourist destinations

Tourism has accelerated demographic change and the urbanising process along the Spanish Mediterranean coastline (González Reverté, 2008). The socio-demographic dynamics of coastal tourist locations are more accentuated in comparison to the Spanish Mediterranean average, with three clear trends. (1) Coastal tourist destinations have the power to attract population, as reflected in their demographic growth (3.65% annual growth rate in tourist municipalities between 1991 and 2006, compared to 1.33% across the Spanish Mediterranean) and particularly in the foreign resident population (11.7% in 2001 compared to 4.9%). This is an even greater rate than the growth registered in other non-tourist cities (11.7% in 2001 compared to 4.1% of foreign residents in provincial capitals). This attraction has been studied by the EU (the ATTREG Project) with similar results. In the last decade the European population has swung from the northeast to the

southwest, with different types of flows: temporary moves (students and tourists), the active population, as well as senior citizens with a permanent or secondary place of residence (Russo et al., 2012). (2) Homes are being modernised and new living models are appearing, as demonstrated by higher divorce rates (8% compared to 4.8% in 2001) and numbers of *de facto* relationships (9.9% compared to 5.3% in 2001). (3) The perceived urban quality of life is greater in tourist destinations than the average: in 2001 there was a perception of less pollution (14% compared to 21%), lower crime rates (17% compared to 24%) and less noise (29% compared to 34%). In conclusion, the capacity of tourist destinations to adapt to an environment in continual change may be "connected to the processes of economic and urban innovation that are carried out in them and to their nature as social laboratories" (González Reverté, 2008:102).

Europeans are attracted to the Spanish Mediterranean for many different reasons (Huete, 2005; Antón, 2011): (1) the availability of basic services that provide a sense of safety, healthcare, political stability, educational services, etc.; (2) highly developed infrastructure, transport and communication that ensure good internal and external connections; (3) an appreciation for the area's natural spaces, landscapes and good climate, which are related to a perception of wellbeing and health, a greater social atmosphere and the enjoyment of an outdoor lifestyle; (4) economic factors such as the lower cost of living or the possibility of purchasing a holiday home as an investment; (5) the social environment and the development of recreational services, which are related to a perception of social energy, sociability and the development of social networks; (6) knowledge of the area from previous visits made as tourists; (7) an appreciation of a greater quality of life. In sum, these factors which attract so many people to the Spanish Mediterranean are closely tied to the collective ideal of leisure, recreation and wellbeing associated with tourist destinations. They coincide with the image and public ideal of the Mediterranean and significantly, they also coincide with the above-mentioned location factors that the creative class uses when deciding where to live, such as social relations, social energy, leisure and recreation possibilities, the landscape and resources, perceived quality of life, etc.

Method and case study

This paper examines two case studies, applying measurable and comparable indicators for creativity in each one. It involves the analysis of (i) a well established international

coastal mass tourism destination and (ii) a large urban area whose economy is not primarily based on tourism. Both cases are similar in population and geographical context, representing the two largest population areas in southern Spain (Table 1).

The Costa del Sol is an international coastal mass tourism destination that acts as a driving force of the economy and urban development in the southern Spanish Mediterranean. The province of Malaga has 1.59 million inhabitants, including 86 inland municipalities and 15 coastal municipalities. However, the socioeconomic and urban dynamic of the Costa del Sol currently extends inland with varying intensity and its limits are blurred. Tourism is the main economic activity, accounting for 14% of the GDP. The Costa del Sol is connected to major European cities, with the busiest airport in southern Spain (12.58 million passengers in 2012) and the fourth busiest in Spain. The province received 9.1 million tourists in 2012 (44% of the total number to visit Andalusia). There is regulated accommodation for 161,939 tourists, with non-regulated accommodation to sleep an estimated 596,535 more.

The province of Seville has 1.93 million inhabitants and 105 municipalities, of which 46 form the metropolitan area of Seville. Tourism is not the region's main economic activity (3.2% of the GDP in 2013), although the capital city of Seville and the towns of Carmona, Écija and Osuna stand out as important tourist destinations. The flow of visitors to the province is much lower (2.7 million tourists) and its airport is not as well connected with international destinations (4.29 million passengers). There is regulated accommodation for 36,556 tourists and non-regulated for another 198,707. It should be pointed out that the economic and political importance of the capital is largely due to the fact that it is also the governmental capital of the entire region of Andalusia, a large traditional metropolitan area and the most important city in the southern half of Spain.

The impact of public policy on the key processes affecting cities reveals differences between the two areas. In the Costa del Sol there are more urban development plans and tourist policies foster urban renewal. In the Costa del Sol there are three Land Management Plans (for the Western Costa del Sol, Malaga Metropolitan Area and Axarquía), while in Seville there is only one (for the Seville Metropolitan Area). The Western Costa del Sol Plan even goes so far as to consider adjusting urban growth, infrastructures and urban regeneration to the super-creative class in Europe. In addition,

sustainable tourism policies (such as the 'Qualifica Plan') partially finance urban renewal. Coastal tourism can even promote environmental sustainability in inland areas near the coast, as evidenced by the proposal to create the Sierra de las Nieves National Park, located in the inland areas of popular coastal tourist destination Marbella). In fact, one of the arguments in favour of declaring this inland location a National Park was the added value that such a protected area would lend to the tourist offerings on the Costa del Sol, while the flow of tourists would likewise help to provide economic resources for the park's maintenance.

Table 1. Features of Malaga and Seville

Prepared by the authors

This work shows a selection of adjusted creativity indicators (Table 2) developed in the USA (Florida, 2004), the EU (Florida and Tinagli, 2004), China (Li & Florida, 2006), Dublin (Murphy and Redmon, 2009), Spain (Pesquera et al., 2010) and the Nordic countries, especially Sweden (Andersen et al, 2010; Ström and Nelson, 2010; Clifton et al 2013). Research focuses at the local level, although there are some results shown at the sub-regional scale. The method compares creativity indicators in tourist cities and their area of influence to non-tourist cities. It also compares creativity indicators in capital cities to the rest of the province, assessing whether socio-economic dynamism is highly concentrated in the capital or whether it extends to other municipalities. A cartographic analysis of the results shown by the indicators was made for this purpose.

Table 2. Creativity indicators

Prepared by the authors

Data sources are the Statistics Institutes of Spain and Andalusia, together with reports from the Spanish Patent and Trademark Office. To avoid the distortion of relative values, municipalities with a population of over 10,000 inhabitants were selected, including 19 in the province of Malaga and 36 of the province of Seville. The indicator ranking method (Schuschny and Soto, 2009) is used to standardize and compare variables:

$$y_c^i = Ranking\left(x_c^i \in X\right)$$

Variables were aggregated into synthetic indicators for (i) Tolerance, (ii) Technology and (iii) Talent, by calculating the sum of the ranking orders of every variable (p) in comparison to the other municipalities in the selection. These three synthetic indicators were then combined using the additive aggregation method of ranking (Schuschny and Soto, 2009) to yield an overall creativity index:

$$I_t^j = \sum_{i=1}^{p} Ranking_{y_t^{ij}} \qquad \forall\, 1 \leq j \leq N_{municipality}$$

Indicators were slightly adjusted depending on data sources and geographical context. For example, creative capital was measured using the number of jobs in companies engaged in creative activities as a proxy. The criteria used to select activities was in line with adjustments used by Florida and Tinagli (2004) for the EU and by Pesquera et al. (2010) for Spain. On the other hand, since there can be no creative jobs (nor any other) without entrepreneurs, this method includes indicators to measure entrepreneurship and the creation of new companies to complete the talent index.

Results

If one compares the overall creativity index for municipalities in the province of Seville to municipalities in the province of Malaga (a combined total of 55 municipalities of over 10,000 inhabitants between the two provinces) the results are conclusive: of the top ten municipalities in the creativity ranking, i.e. those that yield the best results in the three indicators for Tolerance, Technology and Talent, seven municipalities are in Malaga province, and three of them, Benalmadena, Marbella and Fuengirola, score even higher than Seville's capital city (Table 3 and Figure 2).

Table 3. Creativity Ranking

Prepared by the authors. Top Ten ranking of municipalities based on the creativity index, where the first is the municipality with the best results.

Figure 2. Creativity Map: Malaga and Seville.
Prepared by the authors. Administrative boundaries shape files source: Instituto Geográfico Nacional de España

While Malaga has an overall higher creativity index, the study detected different behaviour for the three indicators in each province. Specifically, although there are more municipalities from the province of Malaga in the top ten positions of the Tolerance and Talent rankings, municipalities from Seville hold more positions in the

Technology index. Nevertheless, considering that Florida considers the composite role of the "3Ts" as the key issue when identifying creative places, it should be noted that only three of the 55 municipalities studied were ranked in the top ten positions for all three indicators: Tolerance, Technology and Talent. Two of them are located in the province of Malaga on the Costa del Sol (Benalmadena and Marbella), while the third is located in Seville's metropolitan area (Mairena del Aljarafe).

In terms of the spatial distribution of the creativity index, the results show different behaviour between the provinces of Malaga and Seville (Table 4). In the province of Seville, creativity is concentrated in the capital and the city clearly exercises an influence over its neighbouring municipalities in a radius of up to 27 km. This distribution corresponds with a conventional urban-metropolitan dynamic centred on an historic city, where the main governmental institutions for the region of Andalusia are also concentrated.

In the province of Malaga, only coastal municipalities, the ones with the highest levels of tourism, make it into the top ten ranking for creativity in the province. Interestingly, the capital city of Malaga does not play as much of a pivotal role as the city of Seville, as the city of Malaga ranks fourth in the province, despite the fact that it features a Technology Park, a large university and the main infrastructure for external travellers: the airport, railways and port. This linear distribution means that the highest levels of creativity in the province of Malaga are found not just in and around the capital city but all along the 160 km of coastline, (Marbella, Mijas, Fuengirola, Benalmadena and Torremolinos in the western Costa del Sol and Nerja in the east). In the province of Malaga, therefore, coastal municipalities share leadership roles with the capital city in terms of their creative capital and thus their area of influence over inland areas. In short, unlike conventional metropolitan areas, the Costa del Sol does not have a single nucleus of influence but is rather polycentric.

Table 4. Ranking by province and distance of municipalities from capital cities

Source: Prepared by the authors

The behaviour of the indicators that comprise each of the three indices will now be discussed in greater detail.

Tolerance

In Spain, tolerance is one of the key factors in attracting talent and also, to a certain degree, technology, as confirmed by Pesquera et al. (2010). The municipalities of the Costa del Sol score high in tolerance, especially in the indicators of homosexuality and cultural diversity. In terms of tolerance towards homosexual couples, Torremolinos stands out (18 homosexual couples per 10,000 inhabitants), while the Costa del Sol exceeds Seville by far in terms of cultural diversity, with 13 municipalities in Malaga ranked higher than the highest municipality in the province of Seville (San Juan de Aznalfarache, at 11%). In keeping with the rest of the Mediterranean, the Costa del Sol is shown as an attractive place to live: its municipalities have large populations of foreigners registered in the census: 9 municipalities have populations with over 25% of foreigners, while foreigners account for 40% of the population in Manilva. In Seville artistic activities get better results, with only 3 coastal towns in Malaga among the top ten (Table 5).

Table 5. Tolerance Ranking
Source: Prepared by the authors.

Technology

Seville is clearly ahead of Malaga in the technology index, showing a strong commitment to research and development and boasting two science and technology parks, with a third one in planning, to be named the City of Knowledge. This commitment is seen in the number of applications for patents and utility models, as well as in the number of professional researchers and the number and size of companies engaged in R&D activities. In Malaga investment in research appears to be more linked to the area's political and strategic importance due to its proximity to the airport and mild climate, as evidenced by the fact that the Andalusia Technology Park in Malaga is home to the world headquarters of the International Association of Science Parks (IASP), the Association of Science and Technology Parks of Spain (APTE) and the Network of Technological Spaces of Andalusia (RETA).

The province of Seville leads the top ten ranking for innovation with eight municipalities compared to Malaga with only two. It is significant that the Costa del Sol

is higher in the number of trademark applications but this was not included in the index since it is not necessarily relevant in terms of innovation. Regarding network connectivity, most of the municipalities in the Costa del Sol are among the top twenty but no major differences are shown. In terms of companies and workers in R&D (TE 3.2), Seville province clearly and consistently scores higher (Table 6).

Table 6. Technology Ranking
Source: Prepared by the authors

Talent

Finally, Seville scores higher in the talent index in terms of human capital and creative employment, while the Costa del Sol scores higher in entrepreneurship and business creation. These results are to be expected, firstly because Seville has two universities (with a total of 76,797 students in 2010-11 as compared to 36,726 in Malaga), providing a strong link to R&D and innovation activities, while secondly, Seville's metropolitan area offers more creative jobs than Malaga, a factor which is closely related to the area's artistic activities and human capital. Additionally, tourism has long been one of the driving forces behind Andalusia's economy, with the Costa del Sol being at the forefront in a region that has traditionally not enjoyed a significant amount of industry. On top of this, the culture of entrepreneurship introduced to the Costa del Sol years ago by outside investors has now become part of the local culture in ways that can be seen today: for example, in Marbella 64 companies were created per 10,000 inhabitants in 2011, a much higher rate than in other municipalities (Table 7).

Table 7. Talent Ranking
Source: Prepared by the authors

The impact of public policy on the creativity index

As mentioned in the Introduction, of the three factors that determine an area's creativity, tolerance differs from technology and talent in that it depends more greatly on the unique characteristics of the society in question; it is a feature which is intrinsic to every place and is therefore more complex to create or modify through political intervention. The results show that the Costa del Sol has succeeded in creating the conditions of tolerance and non-formal innovation which are needed to meet the demands of an

increasingly complex tourist industry with greater territorial implications and a highly competitive and changing market.

Talent and technology rely on public or private investment in equipment and infrastructure or incentives to attract talent. In the two cases analyzed herein, public policy was decisive in determining the location of R&D+i infrastructure and facilities such as technology parks, science parks and universities. These types of facilities encourage the kind of formal innovation that is reflected by indicators like the number of patents. Results show that in both provinces there is collaboration on a public and private level between universities, industry and the government. Clusters in Seville focus on the aerospace sector (eg. Aeropolis) and information and communication technologies. There are also two technology and science parks and two universities located in the capital city, one of which was founded in 1551. In Malaga there is only one Technology Park specialising in Information and Communication Technologies and a much younger university (founded in 1974) but nevertheless, the transfer of knowledge and technology does have a connection to the creativity and innovation of the tourist sector. In addition, in the Costa del Sol tourism is regulated through new comprehensive management systems that encompass policies involving both tourism and urban development. An example is the Qualifica Consortium launched in 2008. The first of its kind in Spain, it is a destination management body involving the participation of private companies. This body promotes and manages urban renewal policies and innovation projects for making tourist destinations more competitive. Other examples include the Andalusia Centre for Tourism Innovation located in Marbella and the interoperability projects launched to orient Smart Destinations and Smart Cities.

Discussion and conclusions

After performing an extensive review of the literature on the creative class thesis in different socioeconomic settings, one can conclude that there is evidence pointing to a relationship between the creative class and international coastal mass tourist destinations. Some international coastal mass tourism destinations have developed cosmopolitan tourist offerings that go beyond their limited roles as holiday resort towns to encompass a much wider role that affects residential and productive networks, diversifies the social makeup of the area, leads to improvements in infrastructure and international connections and enhances the area's capacity for innovation and

entrepreneurship in comparison to other areas within the area's geographical surroundings. Such destinations have experienced higher immigration rates due to their greater appeal. Of course, tourist areas cannot compete with global cities in absolute terms of creative capital, but they do show signs of leadership within their immediate geographical context. This represents a main difference between this study and previous research, which has focused on countries or regions (Florida, 2004; Florida and Tinagli, 2004; Berry, 2005; Li and Florida, 2006; Mellander and Florida, 2007; Murphy and Redmond, 2009; Ström and Nelson, 2010; Andersen et al., 2010; Pesquera et al., 2010; Clifton et al., 2013; Lawton et al., 2013).

Scientific debate on creative class theory is intense and can be grouped into three main topics: its conceptual framework, the methodology behind its study and its political implications. The most consistent critiques of creative class theory have been directed at the conceptual framework of Florida's model. Andersen et al. (2010) points out that the many social, urban, historical and political differences between different geographical areas make continual methodological adaptations necessary. An example of this problem can be seen in the difficulties involved in calculating a standardized technology index for the two areas in this case study: while the Costa del Sol has traditionally been seen as a tourist destination that offers opportunities for entrepreneurs and investors and features strong infrastructures for internal and external connections, the province of Seville has experienced a more traditional form of urban development that is concentrated around the capital city and its surrounding area of influence, thereby fostering the creation of more established institutions of technology and talent which more readily provide measurable indicators of technology. That is, due to its unique circumstances, the province of Seville has innovation processes whose results are easier to measure with quantitative indicators (such as the number of patents), whereas the province of Malaga has innovation processes which are more closely linked to intangible services and therefore more difficult to measure.

Glaeser, 2004 (in Anderson, et al., 2010), does not consider the creative class thesis to be a new paradigm in economic development theory, arguing that the differences between creative capital theory and human capital theory are too subtle. More compelling critiques comes from those who cast doubts on the relationship between a city's ability to attract creative capital and its economic success (Malanga, 2004), while

others question whether cities are successful because they attract creative capital or if creative capital flocks towards certain cities precisely because of their success (Berry, 2005). Lastly, Wilson and Keil (2008) question Florida's conceptual approach, criticising what they call 'creative class mania' and arguing that Florida conceives of creativity as a new label of capitalistic economic success attainable only by the creative elite, thus failing to acknowledge the importance of the group they consider to be the 'real creative class': the socially and economically disadvantaged, who have to use their creativity to make ends meet on a daily basis. This argument becomes even more disconcerting when one considers that Florida himself (2004) stated that the higher the creativity index, the higher the inequality index.

In terms of the methodology behind creative class analysis, Donegan et al. (2008) provides a critique based on inconsistencies in the model of statistical analysis due to a lack of traditional economic growth indicators, while Malanga (2004) and Berry (2005) criticise the model for failing to include indicators on cluster processes, contact networks and historical and social factors. Lastly, Berry (2005) argues that talent indicators show a very weak correlation between academic training and economic success.

With regards to its political implications, creative class theory has become very popular among public leaders, who have favoured it as an economic development strategy over other more socially-oriented policies. This preference has given rise to additional critiques of creative class theory, such as Wilson and Keil (2008), who point out that urban renewal strategies often foster gentrification processes. Studies that outline the neoliberal view of creativity as a driver of economic development that is far removed from cultural concerns (McGuigan, 2009) are especially critical. A similar critique was given as far back as the 1980's by Logan and Molotch (1987), even before the creative class thesis was formulated and popularized, when they argued that the 'creative elite' feeds the processes of growth machines that are related with neoliberal policies.

Such critiques are enriching for the scientific community and encourage further research into the hypothesis set forth in this paper. This research does not propose changes in the existing creative class theory or model, but rather provides a new case study on a complex territory with significant tourist activity in southern Spain. International coastal

mass tourism destinations are dynamic urban areas. This study contributes to the scientific debate by addressing areas that seemed doomed to decline a few years ago (Poon, 1993; Knowles and Curtis, 1999). Despite the fact that the inclusion of consolidated tourist destinations into global networks is nothing new (Agarwal, 2012) nor is it new to point out how such destinations have adopted the late-twentieth-century paradigms of postmodernism (Gale, 2005; Urry, 1994) and post-Fordism (Ioannides and Debbage, 1998), the fact that the areas in this case study did not experience the kind of decline that was predicted by some theories is of great interest from the standpoint of sustainable tourism. Global economic activities involve networks and flows that go beyond political boundaries, as the constraints of distance and time are loosened by advances in transport and communications. International coastal mass tourism destinations are part of such networks and flows, incorporating complex movements of people, capital and ideas. Focusing on southern Europe, Russo et al. (2012) shows that such tourist destinations are starting to become creative spaces, taking on similar roles to global cities on a smaller scale in their immediate geographic context. It would therefore be worthwhile to broaden the scope of this study to encompass the entire Spanish Mediterranean or Spanish-French Mediterranean coastline to further enrich the scientific debate.

Another important issue which merits further study involves the relationship between the creative class and novel aspects of public policy, something which can be clearly identified in the context of tourist destinations, including new forms of governance, the role of clusters, the impact of public policies on urban renewal and emblematic urban projects, or the development of innovative spaces and facilities that favour social innovation.

Firstly, there are new forms of governance that seek to encourage greater participation and creativity in tourist destinations. In fact, some tourist destinations are already regulated by comprehensive management systems whose policies encompass both tourist-related issues as well as urban development, seeking to improve and facilitate economic, technical and administrative cooperation as well as public-private initiatives among all the different agents who take part in tourist-related development. Some examples include the Palma Beach Consortium in the Balearic Islands, Turisme de Barcelona and the Qualifica Consortium in the Costa del Sol.

Secondly, processes involving collective participation and the exchange of knowledge among agents within a cluster are more intense in tourist areas than in their surroundings. Some authors have compared cities to clusters (Swann, 1998 in Martin & Sunley, 2003); from such a perspective, some cities and metropolitan areas on the Spanish Mediterranean coastline with a strong presence of tourism show distinct signs of collaboration among agents. (i) Such collaboration can be seen in public-private partnerships in the so-called 'triple helix' of *University-Industry-Government* for exchanging knowledge and technology, strategic planning, becoming more competitive and promoting and marketing the tourist destination. For example, policy decisions were made to favour the Spanish Mediterranean when financing R&D+i infrastructure: 45% of all science and technology parks in Spain are located along the Mediterranean coastline, (Spanish Secretariat of State for Research, Development and Innovation, 2014), with some notable examples being the Science and Technology Park for Tourism and Leisure in Tarragona (Catalonia), the Andalusia Technology Park (Malaga), the Balearic Technological Innovation Park (ParcBIT in the Balearic Islands) and the Valencia Technology Park. Other joint projects include the Andalusia Tech International Excellence Campus, which offers studies in tourism and territorial development, as well as 10 Innovative Business Clusters for Tourism such as the Technological Innovation Cluster for the Balearic Islands. (ii) In the case of the Spanish Mediterranean there exist certain business clusters that bridge tourism and other business sectors. Examples include the tourist and health sectors, which have found common ground and developed clusters of 'health tourism'; or the tourism and wine-making sectors, which have formed a wine tourism cluster. In short, Mediterranean destinations with creative capital are capable of developing new clusters if the conditions are favourable, offering what Rosenfeld (1997:10) called potential or latent clusters.

Thirdly, certain public policies have an influence on the key processes affecting cities, specifically urban renewal policies, emblematic urban projects and the creation of innovative spaces and facilities that favour social innovation: the Palma Beach Plan, the Qualifica Plan in the Costa del Sol, the Barcelona Forum, the 1992 Olympic Games, the Soho Project in Malaga, PortAventura in Tarragona, the City of Arts and Sciences in

Valencia, the remodelling of the ports in Barcelona, Valencia and Malaga, as well as the Thyssen, Pompidou and Picasso Museums in Malaga.

In sum, all of these factors are key to explaining the potential of Spanish Mediterranean tourist destinations to generate creative capital, thereby providing a road map towards their socioeconomic sustainability and going beyond their mono-functional roles as resort towns. Nonetheless, environmental sustainability is an issue yet to be addressed by many of these public policies, especially in light of policies that foment urban sprawl, as described in many studies (Fernández-Durán, 2006; Fernández-Tabales and Mendoza, 2007; Blázquez et al., 2011; Navarro-Jurado et al., 2012).

This study maintains a critical perspective. One the one hand, it reviews Florida's conceptual framework and the neoliberal conceptions of creativity that link the 'creative elite' to processes of gentrification and the 'growth machine'. In addition, it warns that although higher levels of creative capital in international coastal mass tourism destinations may improve sustainability from a socioeconomic perspective and in some cases may even help to foster an appreciation of natural spaces, creative capital does not directly improve environmental sustainability. Environmental sustainability is therefore a challenge that remains to be addressed; doing so would involve reviewing policies on tourism and urban renewal and affording environmental considerations a much greater role in efforts toward achieving sustainable development.

The findings offer new insights that point to lines of future research. In terms of the methodology in creative class research, improvements should continue to be made in identifying and adjusting indicators which are more specific to tourist destinations in ways that would enable researchers to take the unique characteristics of each area into account. Some specific indicators can also be improved on, such as indicators using the number of patents and other elements of R&D, since the tourist sector is characterised not so much by large research institutions but rather by small and medium-sized businesses which undertake processes of 'hidden' innovation that are difficult to quantify and measure in terms of investment and outcomes. On the other hand, it is interesting to contrast indicators of creativity with other traditional economic indicators in tourist destinations. It is also important to note that Florida himself (2004) introduced the inequality index to measure its correlation with the creativity index, finding a strong

correlation between the two: the higher the creativity index, the greater the inequality. In this sense it would be interesting for future studies to incorporate the inequality index and compare results with those of the US, evaluating differences in the socioeconomic and political contexts. Lastly, in order to contribute to the rethinking of policies on tourism and urban renewal for the sustainable development of tourist destinations, it would be interesting to include specific indicators to measure and compare the relation between creativity and sustainability.

References

AGARWAL, S. (2002). Restructuring seaside tourism: the resort lifecycle. *Annals of tourism research*, *29*(1), 25-55.

AGARWAL, S. (2005). Global–local interactions in English coastal resorts: Theoretical perspectives. *Tourism Geographies*, *7*(4), 351-372.

AGARWAL, S. (2012): Relational spatiality and resort restructuring. *Annals of Tourism Research*, 39:1, 134-154.

ANTÓN CLAVÉ, S. (2011): Renovación de destinos turísticos consolidados, en LÓPEZ OLIVARES (coord). Renovación de destinos turísticos consolidados. Valencia: Edt. Tirant lo Blanc. 23-40.

ANDERSEN, K. V.; HANSEN, H. K.; ISAKSEN, A. and RAUNIO, M. (2010): Nordic City Regions in the Creative Class Debate - Putting the Creative Class Thesis to a Test, *Industry and Innovation*, 17:2, 215-240.

BERRY, M. (2005): Melbourne - Is there Life after Florida?. *Urban Policy and Research*, 23:4, 381-392.

BLÁZQUEZ, M; CAÑADA, E. y MURRAY, I. (2011): Búnker playa-sol. Conflictos derivados de la construcción de enclaves de capital transnacional turístico español en El Caribe y Centroamérica. *Scripta Nova*, vol. XV, núm. 368. Universidad de Barcelona. Available: http://www.ub.es/geocrit/sn/sn-368.htm.

BORJA, J. and CASTELLS, M. (1997): *Local and Global: The Management of Cities in the Information Age*. Earthscan Publications Limited, London.

BUTLER, R.W. (2011): Tourism Area Life Cycle. Contemporary tourism reviews. Oxford: Goodfellow.

CLIFTON, N.; COOKE, P., and HANSEN, H. K. (2013): Towards a Reconciliation of the 'Context-less' with the 'Space-less'? The Creative Class across Varieties of Capitalism: New Evidence from Sweden and the UK. *Regional Studies*, 47:2, 201-215.

DONEGAN, M.; DRUCKER, J.; GOLDSTEIN, H.; LOWE, N. and MALIZIA, E. (2008): Which Indicators Explain Metropolitan Economic Performance Best? Traditional or Creative Class. *Journal of the American Planning Association*, 74:2, 180-195.

ESTEBAN, M.; RODRÍGUEZ, A.; ALTUZARRA, A.; (2006). Territorios inteligentes, ciudades creativas: las claves del debate actual. *XXXII Reunión de Estudios Regionales. Desarrollo de regiones y Eurorregiones. El desafío del cambio rural*. Ourense (España), 2006.

FERNÁNDEZ DURÁN, R. (2006): *El tsunami urbanizador español y mundial*. Barcelona, Virus Editorial.

FERNANDEZ TABALES, A. & MENDOZA, A. (2007) La actividad turística en el territorio andaluz. Establecimiento de indicadores, distribución y evolución de los mismos. Boletín de la AGE, 44, 117-146.

FLORIDA, R. (2004): *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. New York: Basic Books.

FLORIDA R. (2008): *Who's Your City? How the Creative Economy Is Making Where to Live the Most Important Decision of Your Life.* Basic Books, New York.

FLORIDA, R. and TINAGLI, I. (2004): *Europe in the creative age*. Available: www.creativeclass.com

GALE, T. (2005): Modernism, post-modernism and the decline of British seaside resorts as long holiday destinations: A case study of Rhyl, North Wales. *Tourism Geographies*. 7:1, 86-112.

GETZ, D. (1992): Tourism planning and destination life cycle, Annals of Tourism Research. 19: 752-770.

GONZÁLEZ REVERTÉ, F. (2008): El papel de los destinos turísticos en la transformación sociodemográfica del litoral mediterráneo español. *Boletín de la A.G.E.*, 47, 79-107.

HARVEY, David (2004): *Mundos urbanos posibles*, in MARTÍN RAMOS A.: *Lo urbano*, 177-198. Barcelona: Edicions UPC, Universidad Politècnica de Catalunya.

HAYWOOD, K.M. (1992): Revisiting resort cycle. Annals of Tourism Research. 19(2): 351-354.

HUETE, Raquel (2005) "Factores de atracción de Alicante como destino residencial: el punto de vista de los residentes europeos". En Mazón, T. y Aledo, A. (Eds.) *Turismo residencial y cambio social. Nuevas perspectivas teóricas y empíricas.* Alicante: Aguaclara. pp. 375-390.

IOANNIDES, D. and DEBBAGE, K. G. (1998): *Neo-fordism and Flexible Specialization in the Travel Industry. Dissecting the polyglot*. In D. IONNIDES and K.G. DEBBAGE (Ed.), *The Economic Geography of the Tourist*. London and New York: Routledge. 99-122.

KNOWLES, T. and CURTIS, S. (1999): The Market Viability of European Mass Tourist Destinations. A Post-Stagnation Life-cycle analysis. *International Journal of Tourism Research,* 1:4, 87-96.

KOREZ-VIDE, R. (2013): Enforcing sustainability principles in tourism via creative tourism development. *Journal of Tourism Challenges and Trends*, VI:1, 35-58.

LARSEN, J., URRY, J., & AXHAUSEN, K. W. (2007). Networks and tourism: Mobile social life. *Annals of Tourism Research*, *34*(1), 244-262.

LAWTON, P.; MURPHY, E. and REDMOND, D. (2013): Residential preferences of the 'creative class'?. *Cities,* 31, 47–56.

LI, T. and FLORIDA, R. (2006): *Talent, technological innovation and economic growth in China*". Available: www.creativeclass.com.

LOGAN, J.; MOLOTCH, H. (1987). *Urban Fortunes: The Political Economy of Place*. Los Angeles: University of California Press. Berkeley.

McGUIGAN, J. (2009): Doing a Florida thing: the creative class thesis and cultural policy. *International Journal of Cultural Policy*, 15:3, 291-300.

MALANGA, S. (2004): The Curse of the Creative Class. Richard Florida's theories are all the rage worldwide. Trouble is, they're plain wrong. *City Journal*.

MARTIN, R., & SUNLEY, P. (2003). Deconstructing clusters: chaotic concept or policy panacea?. *Journal of economic geography*, *3*(1), 5-35.

MELLANDER, C. y FLORIDA, R. (2007): The Creative Class or Human Capital. Explaining regional development in Sweden. *CESIS, Electronic Working Paper Series*, 79. Available: www.creativeclass.com.

MORGAN, M. (1991): Dressing Up to Survive. Tourism Management. 12: 15-20.

MURPHY, E. and REDMOND, D. (2009): The role of 'hard' and 'soft' factors for accommodating creative knowledge: insights from Dublin's 'creative class', *Irish Geography*, 42:1, 69-84.

NAVARRO-JURADO, TEJADA, ALMEIDA, CABELLO, CORTÉS. DELGADO, FERNÁNDEZ, GUTIÉRREZ, LUQUE, MÁLVAREZ, MARCENARO, NAVAS, RUIZ, RUIZ and SOLÍS BECERRA. (2012) Carrying capacity assessment for tourist destinations. Methodology for the creation of synthetic indicators applied in a coastal area. Tourism Management. 33, 1337-1346

PAPATHEODOROU, A. (2004): Exploring the evolution of tourism resorts. Annals of Tourism Research 31 (1): 219-237.

PESQUERA, M. Á.; CASARES-HONTAÑÓN, P.; COTO-MILLÁN, P. and LÓPEZ DE SABANDO, V. I. (2010): *Innovación empresarial, clase creativa y desarrollo económico en España*. Valencia: Tirant Lo Blanch.

POON, A. (1993): *Tourism, Technology and Competitive Strategies*. Wallingford: CAB International.

PRIESTLEY, G., y MUNDET, L. (1998): The post-stagnation phase of the resort cycle. Annals of Tourism Research, 25(1): 85-111.

RICHARDS, G. (2011): Creativity and tourism. The state of the art. *Annals of Tourism Research*, 38:4, 1225–1253.

RICHARDS, G. and WILSON, J. (2007): *Tourism, Creativity and Development*. Master eBook: Routledge.

ROMERO-MARTÍNEZ, J.M., ROMERO-PADILLA, Y. and NAVARRO-JURADO, E. (2015): Atributos urbanos contemporáneos del litoral mediterráneo en la crisis global: caso de la zona metropolitana de la Costa del Sol. *Scripta Nova Revista electrónica de geografía y ciencias sociales*. Vol. XIX, núm. 515. 1 de agosto de 2015.

ROSENFELD, S.A. (1997) Bringing business clusters into the mainstream of economic development, *European Planning Studies*, 5:1, 3-23.

RULLÁN, O. (2008): *Reconversión y crecimiento de las zonas turísticas. Del fordismo al postfordismo*", In *Destinos turísticos: viejos problemas, ¿nuevas soluciones?* 587-624. Cuenca: Ediciones de la Universidad de Castilla-La Mancha.

RUSSO, A.; SMITH, I.; ATKINSON, R.; SERVILLO, L.; MADSEN, B. and OTGAAR, A. (2012): *ATTREG. The Attractiveness of European regions and cities for residents and visitors.* Final report, version 31 May 2012. ESPON y University Rovira i Virgili.

SAARINEN, J. (2006). Traditions of sustainability in tourism studies. Annals of tourism research, 33(4), 1121-1140.

SASSEN, S. (2004): *Las economías urbanas y el debilitamiento de las distancias*, in MARTÍN RAMOS A.: *Lo urbano*, 133-144. Barcelona: Edicions UPC, Universidad Politècnica de Catalunya.

SCHUSCHNY, A. and SOTO, H. (2009): *Guía metodológica. Diseño de indicadores compuestos de desarrollo sostenible*". United Nations.

SECRETARIA DE ESTADO DE INVESTIGACIÓN DESARROLLO E INNOVACIÓN, http://www.idi.mineco.gob.es. Viewed 2014.

SENNETT, R. (2004): *El capitalismo y la ciudad*, in "*Lo urbano*", in MARTÍN RAMOS A.: *Lo urbano*, 133-144. Barcelona: Edicions UPC, Universidad Politècnica de Catalunya.

SIMMIE, (2003): Innovation and urban regions as national and international nodes for the transfer and sharing of knowledge. *Regional Studies*, 37:6-7, 607-620.

STRÖM, P. and NELSON, R. (2010): Dynamic regional competitiveness in the creative economy: can peripheral communities have a place? *The Service Industries Journal*, 30:4, 497-511.

URRY, J. (1994). Cultural change and contemporary tourism. *Leisure Studies* 13: 233-238.

WILSON, D. and KEIL, R. (2008): The real creative class, *Social & Cultural Geography*, 9:8, 841-847.

Figure 1. Classes. Source: Florida (2004). Prepared by the authors.

191x73mm (300 x 300 DPI)

Table 1. Malaga and Seville features.

PROVINCE OF MALAGA	PROVINCE OF SEVILLE
• *Socioeconomic driver:* Costa del Sol urban agglomeration • *Condition:* International mass tourism destination • *Number of municipalities:* Total: 101. Coastal: 15, Inland: 86. • *Population*: 1.59 million inhabitants • *Tourists (annually)*: 9.1 million tourists • *Passengers at the airport (annually):* 12.58 million passengers • *Contribution of tourism to the GDP:* 14% • *Tourist accommodation:* Regulated accommodation for 161,939 tourists Non-regulated accommodation for an estimated 596,535 tourists • *Universities*: 1 public • *Science and technology parks* 1	• *Socioeconomic driver:* Capital of Seville and Metropolitan area • *Condition*: Large traditional urban agglomeration and the administrative capital of the region of Andalusia. • *Number of municipalities:* Total: 105. Metropolitan area: 46. • *Population*: 1.93 million inhabitants • *Tourists (annually)*: 2.7 million tourists • *Passengers at the airport (annually):* 4.29 million passengers • *Contribution of tourism to the GDP:* 3.2% • *Tourist accommodation:* Regulated accommodation for 36,556 tourists Non-regulated accommodation for an estimated 198,707 tourists • *Universities*: 2 public • *Science and technology parks* 2

Prepared by authors

Table 2. Indicators of creativity

Index		Indicator	Background	Description of selected proxy
Tolerance	TO.1.	Homosexuality	US_Florida (2004) Dublin_Murphy&Redmon (2009) Sweden_Ström & Nelson (2010) Spain_Pesquera et al. (2010)	Number of same-sex couples by 10.000 inhabitants. INE Censo 2001.
	TO.2.	Cultural diversity	US_Florida (2004) Dublin_Murphy&Redmon (2009) Sweden_Ström & Nelson (2010) Spain_Pesquera et al. (2010) Sweden&UK_Clifton et al (2012) The Nordics_Andersen et al (2010)	Share of the population that is born in a foreign country . INE Censo 2011.
	TO.3.	Artistic activities	US_Florida (2004) Sweden_Ström & Nelson (2010) Spain_Pesquera et al. (2010) Sweden&UK_Clifton et al (2012) The Nordics_Andersen et al (2010)	Number of artistic activities in the IAE (economic activity tax) by 10.000 inhabitants. SIMA 2010.
Technology	TE.1.	Innovation	US_Florida (2004) UE_Florida & Tinagli (2004) China_Li & Florida (2006) Sweden_Ström & Nelson (2010) Spain_Pesquera et al. (2010)	Patent and Utility Model applications in Spanish Office of Patent (OEPM) by 10.000 inhabitants. OEPM 2011.
	TE.2.	Network Connectivity	Spain_Pesquera et al. (2010) The Nordics_Andersen et al (2010)	ADSL lines per capita. SIMA 2011.
	TE.3.	R&D	UE_Florida & Tinagli (2004) Spain_Pesquera et al. (2010) The Nordics_Andersen et al (2010)	TE.3.1 Number of R&D firms by 10.000 inhabitants. SIMA 2011. TE.3.2 Average employment per R&D firm. SIMA 2011.
Talent	TA.1.	Human Capital	US_Florida (2004) UE_Florida & Tinagli (2004) Sweden_Ström & Nelson (2010) Spain_Pesquera et al. (2010) Sweden&UK_Clifton et al (2012) The Nordics_Andersen et al (2010)	Share population with an university degree. SIMA 2001.
	TA.2.	Entrepreneurship		Share of self-employed in the Social Security System. SIMA 2011.
	TA.3.	New Firms	Sweden&UK_Clifton et al (2012)	Number of new firms divided by 10.000 inhabitants. SIMA 2011.
	TA.4.	Creative employment	UE_Florida & Tinagli (2004) Spain_Pesquera et al. (2010) Sweden&UK_Clifton et al (2012) The Nordics_Andersen et al (2010)	Number of employments in creative enterprise divided by total employment in enterprise. SIMA 2011.
Creativity		Global index of Creativity		Combination of tolerance, technology and talent index.

Source: Prepared by authors.

Table 3. Ranking of Creativity.

	TOLERANCE	TECHNOLOGY	TALENT	CREATIVITY
Benalmadena (Malaga)	1	3	3	1
Marbella (Malaga)	4	8	1	2
Fuengirola (Malaga)	3	11	2	3
Seville (capital)	11	6	4	4
Mairena del Aljarafe (Seville)	10	7	5	5
Mijas (Malaga)	2	13	8	6
Bormujos (Seville)	8	4	11	76
Tomares (Seville)	14	2	9	7
Malaga (capital)	12	9	6	8
Torremolinos (Malaga)	5	14	12	9
Nerja (Malaga)	7	15	10	10

Prepared by the authors Top Ten ranking positions of creativity, where the first is the municipality with the best results in the indicators of the creativity index.

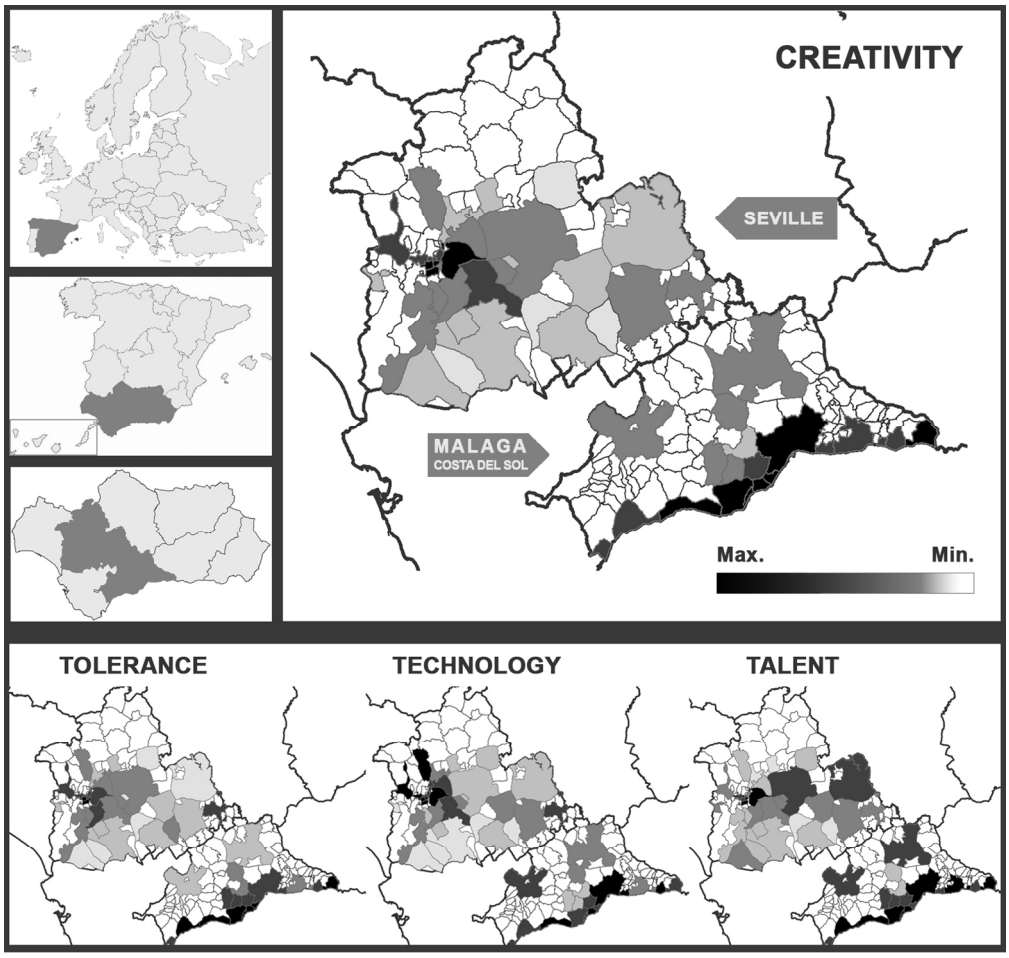

Figure 2. Creativity Map: Malaga and Seville. Prepared by the authors. Administrative boundaries shape files source: Instituto Geográfico Nacional de España

138x130mm (300 x 300 DPI)

Table 4. Ranking by provinces and distance of municipalities from capital cities

Creativity ranking Province of Malaga		Distance from the capital (km)	Creativity ranking Province of Seville		Distance from the capital (km)
Benalmadena	1	18.4	Seville	1	0.0
Marbella	2	59.1	Bormujos	2	11.2
Fuengirola	3	32.2	Mairena del Aljarafe	3	9.7
Malaga	4	0	Tomares	4	8.0
Mijas	4	33.7	Espartinas	5	16.9
Estepona	5	89.0	Castilleja de la Cuesta	6	10.0
R. de la Victoria	5	18.8	Gines	7	13.1
Nerja	6	58.3	Sanlucar la Mayor	8	26.9
Torrox	7	51.5	Alcala de Guadaira	9	15.9
Torremolinos	7	15.4	Camas	10	8.0
Alhaurin de la Torre	8	17.1			
Manilva	9	102.0			
Velez-Malaga	10	39.5			

Source: Prepared by authors

Table 5. Ranking of Tolerance

	TO.1. HOMOSEXUALITY (per 10,000 inhabitants)		TO.2. CULTURAL DIV. (per 100 inhabitants)		TO.3. ARTISTIC ACTIV. (per 10,000 inhabitants)		TOLERANCE
1	18.54	Torremolinos (Malaga)	**40.54**	Manilva (Malaga)	11.44	Gines (Seville)	Benalmadena
2	9.84	Benalmadena (Malaga)	**38.07**	Mijas (Malaga)	9.42	Bormujos (Seville)	Mijas
3	6.27	Mijas (Malaga)	**36.79**	Fuengirola (Malaga)	9.11	Espartinas (Seville)	Fuengirola
4	6.24	Fuengirola (Malaga)	**35.27**	Torrox (Malaga)	8.58	Marbella (Malaga)	Marbella
5	4.76	Nerja (Malaga)	**32.46**	Benalmadena (Malaga)	8.58	Tomares (Seville)	Torremolinos
6	4.38	Torrox (Malaga)	**29.56**	Marbella (Malaga)	8.47	Benalmadena (Malaga)	San Juan de Aznalfarache
7	4.14	San Juan de Aznalfarache (Seville)	**29.38**	Nerja (Malaga)	7.95	Mairena del Aljarafe (Seville)	Nerja
8	3.42	Alhaurin de la Torre (Malaga)	**28.43**	Torremolinos (Malaga)	7.37	Puebla del Rio, La (Seville)	Bormujos
9	3.35	Mairena del Aljarafe (Seville)	**26.86**	Estepona (Malaga)	6.55	Mijas (Malaga)	Estepona
10	3.35	Bormujos (Seville)	**20.91**	Alhaurin el Grande (Malaga)	6.15	Seville (capital)	Mairena del Aljarafe

Source: Prepared by authors.

Table 6. Ranking of Technology

	TE.1. INNOVATION (per 10,000 inhab.)		TE.2. CONNECTIV. (per inhabitant)		TE3.1. R&D (per 10,000 inhab.)		TE.3.2. R&D (average number of jobs per R&D firm)		TE.3. R&D	TECHNOLOGY
1	2.48	Bormujos (Seville)	0.24	Manilva (Malaga)	7.94	Tomares (Seville)	8.23	Fuengirola (Malaga)	Castilleja de la Cuesta (Seville)	Castilleja de la Cuesta (Seville)
1									Seville (capital)	
2	2.44	Torrox (Malaga)	0.21	Marbella (Malaga)	6.79	Gines (Seville)	6	Rinconada, La (Seville)	Malaga (capital)	Tomares (Seville)
3	2.41	Seville (capital)	0.18	Rincon de Victoria (Malaga)	6.73	Seville (capital)	3.33	Castilleja de la Cuesta (Seville)	Tomares (Seville)	Benalmadena (Malaga)
4	2.09	Tomares (Seville)	0.18	Espartinas (Seville)	5.17	Castilleja de la Cuesta (Seville)	3.23	Seville (capital)	Marbella (Malaga)	Bormujos (Seville)
5	1.72	Castilleja de la Cuesta (Seville)	0.17	Benalmadena (Malaga)	5.17	Mairena de Aljarafe (Seville)	2.56	Malaga (capital)	Espartinas (Seville)	Guillena (Seville)
6	1.6	Rinconada, La (Seville)	0.17	Mijas (Malaga)	4.66	Ronda (Malaga)	2.5	Marchena (Seville)	Fuengirola (Malaga)	Seville (capital)
7	1.51	Sanlucar la Mayor (Seville)	0.17	Nerja (Malaga)	4.42	Malaga (capital)	2.43	Dos Hermanas (Seville)	Benalmadena (Malaga)	Mairena de Aljarafe (Seville)
7									Alcala d. Guadaira (Seville)	
8	1.51	Malaga (capital)	0.17	Guillena (Seville)	4.07	Marbella (Malaga)	2.24	Alcala d. Guadaira (Seville)	Dos Hermanas (Seville)	Marbella (Malaga)
8										Torrox (Malaga)
9	1.51	Camas (Seville)	0.17	Mairena de Aljarafe (Seville)	3.78	Camas (Seville)	1.6	Espartinas (Seville)	Alhaurin de Torre (Malaga)	Malaga (capital)
9							1.5	Guillena (Seville)	Ronda (Malaga)	Espartinas (Seville)
10	1.27	Algaba, La (Seville)	0.16	Gines (Seville)	3.65	Rincon de Victoria (Malaga)			Rinconada, La (Seville)	Rincon de Victoria (Malaga)
10										Sanlucar la Mayor (Seville)

Source: Prepared by authors

Table 7. Ranking of Talent

	TA.1. HUMAN CAPITAL (per 100 inhab.)		TA.2. ENTREPRENEURS. (per 100 inhab.)		TA.3. NEW FIRMS (per 10,000 inhab.)		TA.4. CREATIVE EMPLOYMENT (per 100 jobs)		TALENT
1	23.12	Tomares (Seville)	8.07	Lebrija (Seville)	64.09	Marbella (Malaga)	53.69	Seville (capital)	Marbella (Malaga)
2	19.66	Espartinas (Seville)	8.02	Nerja (Malaga)	34.86	Benalmadena (Malaga)	51.32	S. Juan de Aznalfarache (Seville)	Fuengirola (Malaga)
3	17.02	Gines (Seville)	7.43	Marbella (Malaga)	34.71	Fuengirola (Malaga)	44.89	Bormujos (Seville)	Benalmadena (Malaga)
4	15.96	Mairena del Aljarafe (Seville)	7.06	Estepa (Seville)	32.01	Mijas (Malaga)	27.11	Malaga (capital)	Seville (capital)
5	15.55	Seville (capital)	7.04	Fuengirola (Malaga)	28.37	Espartinas (Seville)	26.9	Mairena del Aljarafe (Seville)	Mairena d.Aljarafe (Seville)
6	15.24	Rincon de la Victoria (Malaga)	6.64	Viso del Alcor (Seville)	28.07	Torremolinos (Malaga)	23.94	Marbella (Malaga)	Malaga (capital)
7	12.2	Malaga (capital)	6.57	Torrox (Malaga)	27.95	Mairena de Aljarafe (Seville)	22.52	Tomares (Seville)	Velez-Malaga (Malaga)
7									Gines (Seville)
8	11.39	Torremolinos (Malaga)	6.52	Antequera (Malaga)	25.13	Estepona (Malaga)	21.74	Castilleja de la Cuesta (Seville)	Mijas (Malaga)
9	10.51	Bormujos (Seville)	6.37	Velez-Malaga (Malaga)	25.08	Malaga (capital)	21.26	Mijas (Malaga)	Tomares (Seville)
10	10.18	Fuengirola (Malaga)	6.31	Marchena (Seville)	24.1	Seville (capital)	21.17	Fuengirola (Malaga)	Estepona (Malaga)
10									Nerja (Malaga)

Source: Prepared by authors