

ESIC European Service Innovation Centre  
REPORT

# Policy Brief for the Canary Islands

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# Table of Contents

## Introduction

1. The Regional Challenge: Towards a Large-scale Demonstrator	3
2. The Regional Profile	4
3. The Regional Policy Mix to foster Service Innovation	6
4. Policy Recommendations	7
5. Action Plan and Roadmap	13

# Introduction

This policy brief has been prepared by the European Service Innovation Centre (ESIC) for the Canary Islands with the objective of providing concrete recommendations and outlining an action plan that will help to make better use of the 'transformative power' of service innovation.

The European Service Innovation Centre is a two-year initiative commissioned by the European Commission's Directorate-General for Enterprise and Industry to capture and demonstrate the dynamics and large-scale impact of service innovation, as well as to assess how service innovation impacts on competitiveness, industrial structures and regional development.

The context of ESIC is that service innovation plays an increasingly instrumental role in the transformation and upgrading of traditional economic sectors and industries, such as manufacturing industries, into more productive, competitive and high value-added business eco-systems. There is a growing need to assess, analyse and demonstrate what impact service innovation has on industrial change and to assist Member States and regions towards a greater understanding of service innovation as a driver of industrial transformation and future competitiveness.

Primarily, ESIC provides customised advice to six selected model demonstrator regions (the Canary Islands, Emilia-Romagna, Limburg, Luxembourg, Northern Ireland and Upper Austria) that were selected following a call for expression of interest by the European Commission's Enterprise and Industry Directorate-General. The concept of the 'model demonstrator region' or 'large-scale demonstrator' is the cornerstone of a new systemic approach launched by the European Commission that aims to foster economic growth by addressing a specific problem or societal challenge through service innovation, under real life conditions.

The ESIC initiative also helps other European regions and Member States to make better use of the transformative power of service innovation in strengthening existing and emerging industries and markets and in developing better industrial policies and smart specialisation/cluster strategies. The goal of creating a favourable eco-system for service innovation will boost supportive infrastructures and business conditions that, in turn, will facilitate the take-up of innovative services throughout the economy.

This policy brief responds to the initial challenge to diversify its tourism sector identified by the Canary Islands in its application to participate in this initiative. The policy brief is based on a regional summary assessment prepared by a team from ESIC that analysed the potential role that service innovation could play for the region. It also follows a peer review meeting that took place on 18-19 February 2014 in Tenerife, where the regional stakeholders and the peer review panel reviewed the findings of the summary assessment and outlined the potential ways forward.

The European Service Innovation Scoreboard, the Summary Assessment Reports and Policy Briefs are available on the ESIC website at: [http://ec.europa.eu/enterprise/initiatives/esic/index\\_en.htm](http://ec.europa.eu/enterprise/initiatives/esic/index_en.htm)

## 1. The Regional Challenge: Towards a Large-scale Demonstrator

The Canary Islands presents itself as a test-bed and living lab for service innovation, and, in fact, the region has all ingredients to play these roles. Both the 12.5 million visitors a year and the tourism industry constitute large markets for almost any sector of the regional economy of the Canary Islands. The Canaries have a lot to offer to international tourists, although the region has relied too much and too long on the traditional business model of selling 'sun, sea and sand'. Not enough attention has been paid to other needs of users and to the possibilities of creating more and new value added for them. The various actors in the innovation system lack an awareness of the facilitating role of service innovation and of the transformation its use could induce. Innovation is too often focused on technology, while non-technological innovation is largely overlooked. In terms of scientific exploration and discovery, some leading fields such as marine, astronomy and environmental technology exist but this has not yet materialised into broader economic impacts. Investments are more promising, as are policy support for market exploration and entrepreneurial activity<sup>1</sup>.

The application document submitted by the Canary Islands Regional Government in response to the ESIC call acknowledges the need to diversify the tourism sector by introducing innovative business models that are capable of satisfying increasingly demanding customers. In addition, the tourism sector is expected to play a leverage role and act as a source for smart diversification on the part of other industries such as energy, ICT, agro-food, transport and logistics. It seems, however, that much change is needed before prevalent sector boundaries are crossed, especially on the two main islands of Gran Canary and Tenerife.

The application document identifies a number of other challenges facing the region such as distance from the mainland, its position as one of the outermost regions in the EU, high population density but lower GDP per capita than Spain in general, high unemployment and the predominance of micro companies. Further challenges include:

- The need for diversification in tourism;
- The difficulty of innovating in the traditional core of the tourism sector;
- Existing barriers to the introduction of other 'supportive or enabling' sectors into tourism;
- Limited cross-sectoral communication; and
- The sector specific approaches of some policies.

Despite all of these issues the tourist sector of the Canary Islands seems to be doing well. The region is still amongst the top-tourist attracting regions in Europe and also the occupancy rate has remained high. The constant flow of tourists provides a steady income and it is no surprise that only a few people and agencies recognise the need for change. With the resulting lack of urgency, it is difficult to convince the various stakeholders that the whole innovation eco-system is not working as well as it could. In addition, it is even more difficult to persuade various stakeholders to engage in risk-taking entrepreneurial discovery, and in a possible disruptive transformation of their current business models.

This is the point of departure, which calls for small-scale testing and large-scale demonstrations. Since service innovation is based on a process of learning by doing, learning by using and learning by interacting, policy makers should invest in framework conditions and policy instruments which are conducive to developing and testing service innovations and related support initiatives that can show that much more could be achieved.

Who will be the actual owner of the problem is an issue that remains unresolved. Who will be taking this project forward in the future? How will it be funded and for how long? The policy mix contains a number of examples of measures that have been cancelled due to lack of funds. Commitment and trust cannot be built if the stakeholders are not convinced that the project is sufficiently well backed both politically and financially by the regional government. The alternative is to bring together those stakeholders that are willing to, and capable of, taking innovative initiatives, not as a way to acquire subsidies from the government, but because they have self-interest or are driven by the potential benefits, which they see for their communities, businesses, sectors or island. Policy-makers should organise such 'coalitions and networks of the willing and talented' and support co-designed, bottom-up initiatives, which are based on locally identified challenges and the generation of innovative ideas and the testing and demonstration of entrepreneurial and innovative solutions.

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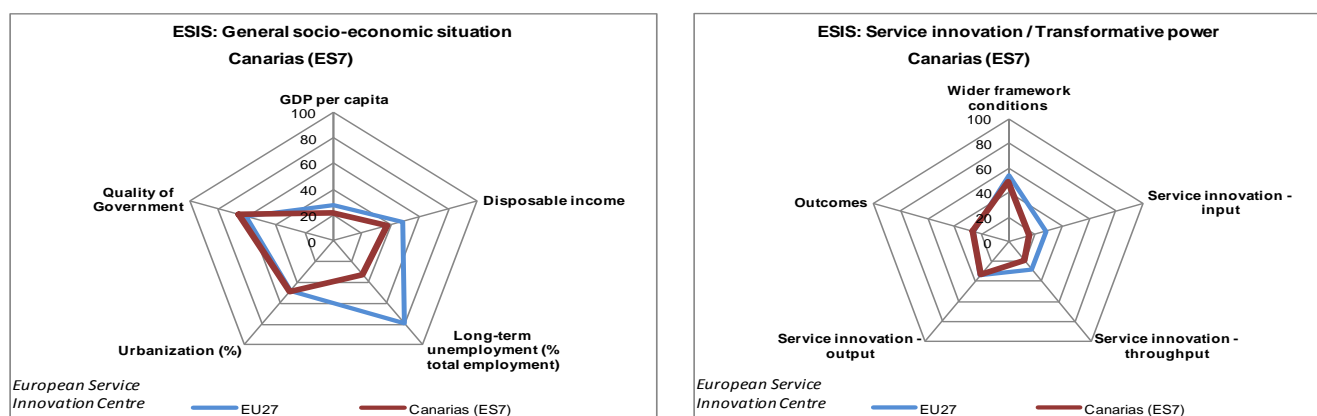
<sup>1</sup> In the case of La Palma the good conditions for astronomy have been transformed into a thematic tourist niche-market

## 2. The Regional Profile

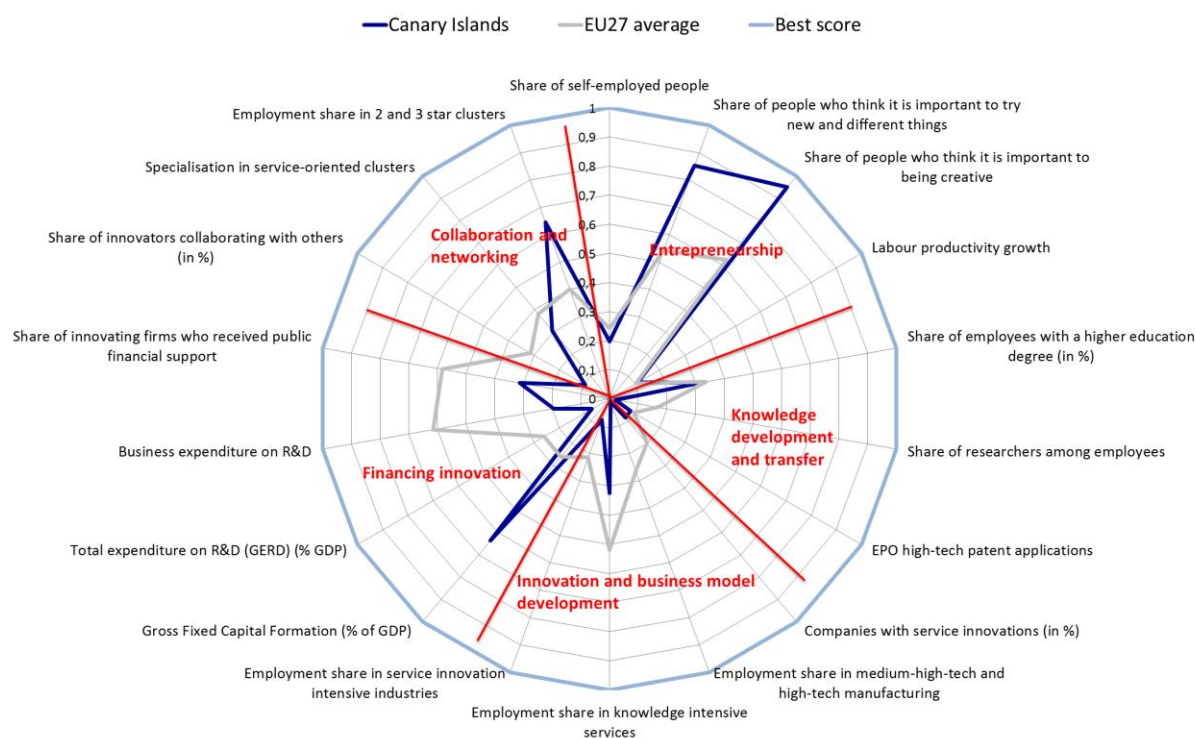
ESIC compared the regional innovation system of the Canary Islands to the average performance of the EU according to various indicators of the European Service Innovation Scoreboard. Relative performance is measured against the performance of the best performing region of the total 262 EU regions taken as 100 and of the worst performing region taken as 0.

The graph on the left-hand side of Figure 1 provides an overview of the general socio-economic situation that provides the framework for service innovation. The graph on the right-hand side reflects the importance of service innovation in the region and measures the transformative capacity of service innovation. Figure 2 consists of indicators capturing the five innovation system dimensions such as entrepreneurship, knowledge development, innovation, financing and collaboration.

**Figure 1: Regional profile of the Canary Islands on the European Service Innovation Scoreboard**



**Figure 2: Distance of the Canary Islands from the best performing regions and EU27 average in terms of service-innovation related structural indicators**



The performance of the Canary Islands, regarding the general socio-economic situation and the wider framework conditions of service innovation, is worse than the EU average. The most significant difference can be seen in long-term unemployment, which is a persistent problem in the region. There is still some ***catching-up to do in service innovation input and throughput***. The performance of the Canary Islands exceeds the EU27 average in some indicators measuring; entrepreneurship - attitudes towards trying new things and being creative is close to the performance of the best regions in Europe; financing - gross fixed formation; and collaboration and networking - employment share in 2 and 3 star clusters. However, it lags behind in terms of knowledge development and transfer and innovation and business model development. This is also reflected in the distance from the best scores.

The service innovation-related structural indicators, which are the number of companies with service innovations and employment share in service innovation intensive industries, illustrate that the opportunities in the region are not yet being exploited by existing industries and therefore, the transformative capabilities of services remain untried and untested.

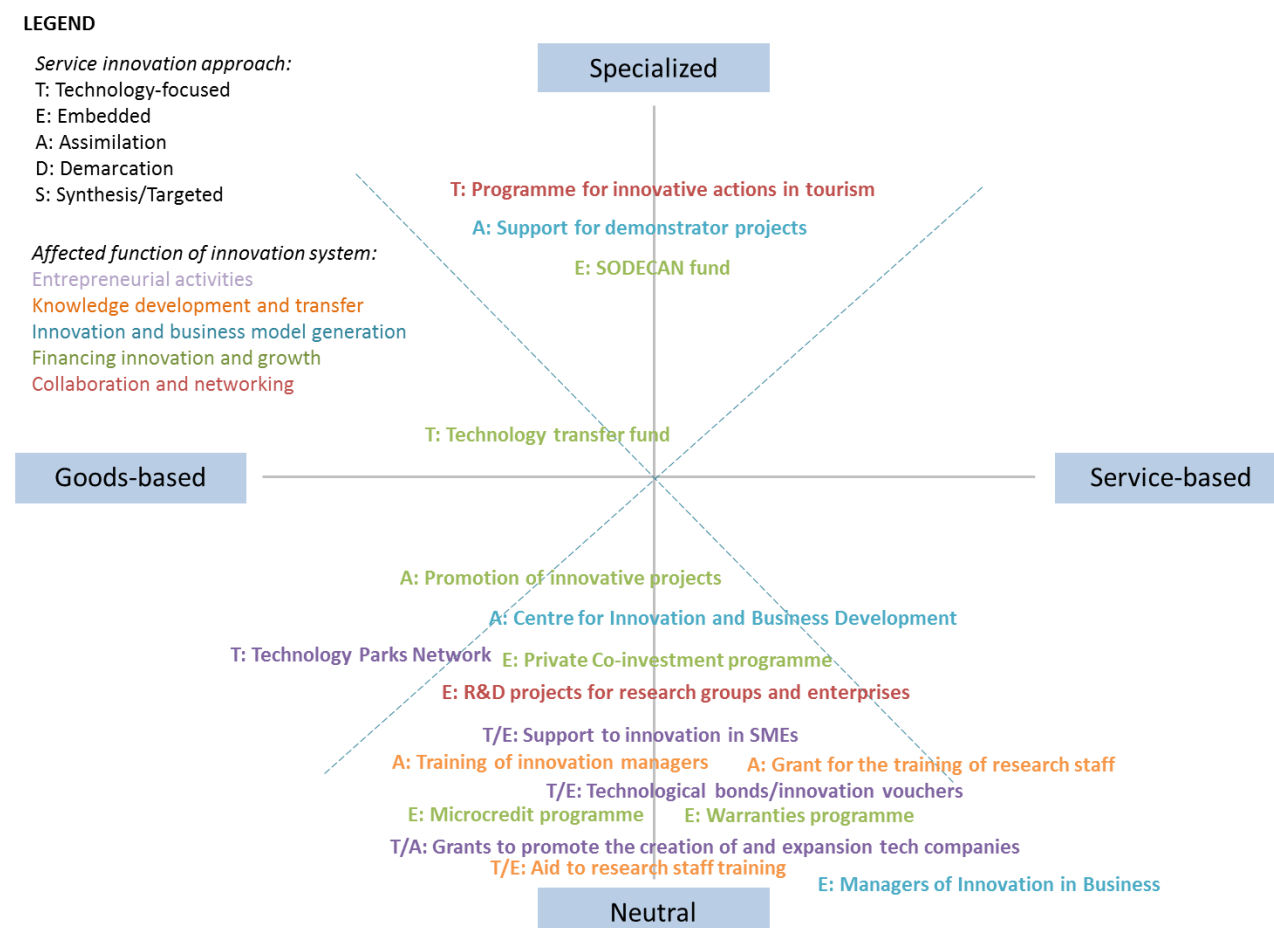
Further information about the indicators is to be found through the European Service Innovation Scoreboard at: [http://ec.europa.eu/enterprise/initiatives/esic/scoreboard/index\\_en.htm](http://ec.europa.eu/enterprise/initiatives/esic/scoreboard/index_en.htm).



### 3. The Regional Policy Mix to foster Service Innovation

Figure 3 provides an analytical overview of the regional innovation policy mix of the Canary Islands. Current policy measures are plotted on a matrix in which the horizontal axes indicate the extent to which a certain measure is specific to goods or services. The vertical axis enables a distinction to be made between measures that are 'neutral' or 'horizontal' in terms of sectors and measures that are 'specialised' or 'vertical'. The colours refer to the functions of the innovation system to which a particular measure is relevant.

**Figure 3: Regional innovation policy instruments in the Canary Islands**



The approach of the current policy mix of the Canary Islands with its R&D and cluster policy focus is too traditional to drive regional transformation. The policy mix also lacks continuity as insufficient funds have led to the cancellation of some measures. This, in turn, creates uncertainty about policy measures and their effects which does not encourage innovation. Such a development is reflected by the European Service Innovation Scoreboard indicators, for instance, in the low level of private sector investment in R&D. The public sector should act as a coordinator and catalyst for cooperation between the major actors in the innovation system. Also, efficient innovation activity requires the cooperation of different actors who interact in various phases of the innovation process. Cooperation and networking amongst them speeds up the innovation dynamic, brings benefits to all actors and creates additional value by overcoming any distrust between them.

Another important aspect is the lack of service inclusiveness in the policy mix, as the mix favours technology and technological innovation. Some measures contain elements that do not discriminate against services but these are not specifically targeting services. As the boundaries between manufacturing and services keep blurring, the policy mix or its characteristics should be changed accordingly. The lack of awareness could be mitigated by various activities such as innovation forums that bring together actors from business and policy-making as well as research and education or by identifying and showcasing good practices of service innovation.

## 4. Policy Recommendations

Based on the regional assessment, it is suggested that the following 12 recommendations should be taken into account.

### 1 – Evaluate policies

There have been a lot of changes in the policy mix over the past few years. For instance, the 'Programme for innovative actions in tourism' has been modified. Additionally two new measures have been planned - a 'pilot programme in support of the innovation and competitiveness of Canary Islands SMEs' and a more general 'management training programme for innovation.'

Some of the measures have been cancelled due to lack of funds whilst others have not been implemented. It is important to know what criteria have been used in making these decisions. What was the rationale? Who decided which measures should be cut and why? It is recommended that the regional level policies are evaluated in a transparent way and developed according to the results of these assessments.

### 2 – Increase elements of service innovation in support measures

The current toolbox of instruments presented in the RIS3 strategy contains a number of support measures. It is important to take a step away from measures that are biased towards technology or traditional R&D, and include a service perspective in innovation policy development. Instead of adding new instruments to the policy mix, the measures should be revisited to improve their service inclusiveness (cf. EPISIS final report: policy recommendations to support service innovation<sup>2</sup>). If such a change is made, it needs to be explained - what it means in practice, how companies can benefit from it and, if appropriate, case studies could be used to illustrate the results of a similar change in other countries. Such a transformation might also require different expertise in designing policy schemes, and new capabilities from agencies in terms of evaluating the non-technological aspects of applications submitted for support. Designing services has become an important innovation activity. Product designers create additional value with intangible experiences such as the aesthetic or user-friendly aspects of goods. However, service design also relates to the design of various interactions between the service provider and user. Service design can therefore be seen as a means to advance business models which may transform whole value chains. While product innovations often start with insights from R&D, service innovations often start with insights from users. To stimulate product innovation it might be enough to provide R&D subsidies, but that is not the case for service innovation or new business models, since they require (support for) organisational innovation and market-innovation.

**Figure 4: Advancing business models through service innovation**



Source: Business Innovation Observatory (EC, DG Enterprise and Industry, March 2014)

The various actors in the innovation system would also benefit from awareness-raising activities, such as:

- Innovation fora that bring together actors from business, policy-making and research and education;
- Awards for service innovation;

<sup>2</sup> [http://ec.europa.eu/enterprise/policies/innovation/files/proinno/episis-final-report\\_en.pdf](http://ec.europa.eu/enterprise/policies/innovation/files/proinno/episis-final-report_en.pdf)



- The identification and showcasing of good practices in service innovation that take place not only in service sectors but also in agriculture and energy etc. in the Canary Islands or from other countries; and
- The introduction of such cases into training at university and vocational level.

Service innovations need co-design that is carried out in a systemic way with partners external to the companies concerned and from other sectors and actors in the value and innovation chains concerned.

Policy support measures for developing business models are still rare. It became clear during the peer review meeting that national funding from the Centre for the Development of Industrial Technology (CDTI) is mostly available for technological innovation, which implies that the Canary Islands have to develop instruments to promote service and business model innovation at regional level.

### **3 – Establish an innovation platform**

Many concrete problems, challenges and ideas were raised in the discussions during the study visit and peer review meeting organised with ESIC. Without some kind of institutionalisation in the form of platforms these discussions will not, however, continue and the challenges and ideas will not be taken up by local initiators, who could work towards concrete solutions.

These two important aspects which need to be institutionalised (organised, or providing the means to organise) which might call for separate kinds of platforms: one for identifying new problems, challenges and ideas and another type for solving and coming up with solutions. For the latter, it is important to learn from existing innovation platforms such as the one set up in Tampere and also the Demola platform. The innovation platform should be multi-disciplinary and work towards collaborative innovation and demonstration. The key factors in the platforms include communities, talents, eco-system orchestrators, creation of attractive environments for co-creation (*"trying out new stuff"*) and speeding-up going-to-market, capacity building and systemic projects, as well as demand pull instead of technology push. The platform concept is based on the following guiding principles: create new combinations of knowledge (tapping into young talent); move faster - from an idea (kick-off) to prototype (pitch) in just four months; make it easily affordable to start, as huge financial support is not necessary. The Demola platform brings together companies with real cases or problems to be solved by multidisciplinary teams of students and university staff.

A selection of problems and challenges raised at ESIC meetings, which could be tackled by such a platform on the Canary Islands, are listed below:

- How can hotels and restaurants be persuaded to sell local wine from the Canaries?
- How can traditional Canary Islands' cuisine be promoted?
- How could the provision of information for tourists on the bio-diversity and landscapes of the Canary Islands be improved (for instance, tourists who ask questions when they are climbing the volcano may get very poor, or practically no, answers)?
- How could the use of locally grown fruits and vegetables be promoted? Apparently the logistics demands of hotels are high and could not be met by individual farmers, but could a collective initiative solve the logistics issue, perhaps through an ICT based solution?
- How to set up a local web-based platform for 'things to do in the Canary Islands';
- How to support the preservation of the landscape by grape farmers on Lanzarote who are forced to climb up and down the holes in the volcano-sediment to tend the grapes;
- Ideas on how to develop services in the agro-industry e.g. cactus growers or aloe vera farms can develop a service for tourists and find ways to sell to tourists directly.
- Ideas on how to improve waste-management;
- The transportation challenges, and single-ticket ideas;
- Ideas on how to promote the Canary Islands as a film location?
- How can entrepreneurs and citizens overcome the difficulties when they are interested in installing solar panels on their roofs?

#### **4 – Refine the challenge or polish it further**

At the moment the Canary Islands Large-Scale Demonstrator approach is a good starting point for transforming the regional economy. It is, however, far from an action plan. It lacks a clear focus in addressing the many problems or challenges identified. A new strategy exists, but the policy instruments and schemes to implement it are still to be designed and aligned with the broad vision. Without a well-developed action plan, a distribution of tasks among the stakeholders, a setting of timetables and an identification of key actors to steer and oversee the process, the strategy cannot be expected to produce live, concrete projects.

Such an action plan needs to acknowledge both the key role of tourism in the Canary Islands' economy and the need to connect tourism to other sectors that provide inputs into sustainable tourism. There is a lot of room for service innovation in both areas, be it at the level of service activities or service functions, which needs to be reflected in innovation policy measures.

#### **5 - Introduce a quality system/standard in tourism**

In order to maintain and increase the competitiveness of tourism in the region, a quality system should be introduced into the companies operating in the sector. The European Commission is proposing a set of voluntary European Tourism Quality Principles covering the following four areas: staff training under the supervision of a quality coordinator; consumer satisfaction to ensure that tourists can rely on the handling of their complaints; cleanliness and maintenance; and the correctness and reliability of information presented in, at least, the most relevant foreign languages<sup>3</sup>.

Scotland implemented a quality system a few years ago and the results have been encouraging. The key objectives include, for instance, improving quality and standards across industry, guiding and reassuring visitors as well as providing marketing support. There are several similarities between the two regions, as Scotland is on the outskirts of Europe, the most important industry is tourism and Scotland also needs to stand out from other tourism attractions. The 'mystery travellers' represent the key ingredient of the quality system. They are hired to visit the attractions and assess them on a number of indicators including attitude, welcome, staff appearance, cleanliness and efficiency. After the review, the owners or managers are given advice on what to do in order to improve the given rating.<sup>4</sup>

In addition to such standard quality systems, the Canary Islands could add its own thematic labels: such as

- Green/eco-tourism labels;
- Locally grown food and drinks as well as other 'feel good branding';
- Signs showing 'we sponsor the ...platform or ... initiative;
- The 'Experience Canary Islands' initiative, a platform that supports initiatives from Canary Islands' graduates in cooperation with local entrepreneurs, is aimed at creating new ways to experience the beauty and diversity of each island.

Tourists could also be used as a source of crowd-funding. They could be shown some of the winning proposal-pitch videos on a website and sponsor/fund the ones they like.

#### **6 – Identify tourist profiles**

The year-round tourism brings a constant flow of tourists to the Canary Islands. This crowd of visitors is becoming increasingly diverse, and the traditional 'sun, sea and sand' approach is neither adequate nor capable of catering for the various needs of all of them. Being able to offer tailor-made services requires the prior identification of the tourist profiles. A segmentation study should be conducted to get a better understanding of the variety of visitors and their expectations. The Government of Tenerife Island, the Tenerife Council, has collected feedback from a questionnaire applied to the tourists at the Tenerife South airport. Similar surveys should be made on each island and the results should be shared and discussed with the relevant associations (based on the principle of Open Data).

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<sup>3</sup> The European Commission: Voluntary European Tourism Quality Principles: [http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item\\_id=7309&lang=en&tpa\\_id=0&title=New%2Dtourism%2Dquality%2Dprinciples%2D%E2%80%93%2DGood%2Dfor%2Dtourists%2C%2Dgood%2Dfor%2Dsmall%2Denterprises](http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item_id=7309&lang=en&tpa_id=0&title=New%2Dtourism%2Dquality%2Dprinciples%2D%E2%80%93%2DGood%2Dfor%2Dtourists%2C%2Dgood%2Dfor%2Dsmall%2Denterprises)

<sup>4</sup> Visit Scotland's Quality assurance: <http://www.visitscotland.com/quality-assurance/>

At the moment, it is not known if the data collected from visitors at the Tenerife South Airport is open. If it is not, it should be and it is recommended that the data should be shared and discussed in a series of brainstorming sessions bridging sectors and disciplines.

Such information is very important for service innovation. In this respect, user-driven and demand-side innovations are more about 'market-exploration' and 'entrepreneurial discovery' than about scientific exploration and technological discovery. Survey results could be used as the focus for brainstorming sessions organised by the regional agencies and involving relevant actors, and especially entrepreneurs. Groups of actors could register themselves for one of the emerging challenges or initiatives, and appoint a project leader/owner from amongst members of their group. Regional governments could appoint and hire 'Business Developers', experts who would then support each of the groups of stakeholders in developing ideas into concrete business proposals, projects and initiatives and in drafting policy-support applications.

Also the 'crowd-funding' idea outlined above could serve to find out what innovations tourists want to see developed and, at the same time, give them the chance to take part in it, by funding the initiative of their choice. The ideas could, for example, involve a business plan from a local farmer who wants to start a winery or a restaurant or to offer special tours, workshops and sports events or to rent telescopes.

By starting with the identification of the needs of tourists and the needs of entrepreneurs in the tourist industry, it would be possible to organise a bottom-up, user-driven selection or competition to find the most interesting and viable ideas. Currently, the process of selection seems to be based on lobbying contests between sectors and high-level representatives who have the most vested interests or on the results of a bureaucratic judgement of the applications for project subsidies made by technological experts.

## **7 – Design a diversification strategy**

Recommendation 7 is a logical continuation from recommendation 6. As it is clear that tourism is the key industry and will continue to be so in the future, the policy framework of the Canary Islands should focus on maintaining and increasing the stronghold it has in the sector. The island-specific characteristics are becoming more visible and this development should be promoted. The diversification strategy includes fostering not only the Canary Islands' brand, but also the brand of each individual island (La Palma – stargazing and astronomy, Lanzarote – sports and volcanoes etc, El Hierro – sustainability, Tenerife and Gran Canary – mix of vibrant city life and great outdoor experiences).

Instead of new brands or new business models being selected by policy-makers, ex-ante and top-down, the process should be one of entrepreneurial discovery, conducting small local tests and then scaling up the promising practices to a higher policy level. So instead of picking a business model for the future, the strategy should focus on how to organise and facilitate the discovery process, the meetings, the exchange between multi-disciplinary representatives, the evaluation or competition among the first initiatives and, for instance, organising a prize for the best idea for a regional strategy in two years' time.

## **8 – Increase cross-sectoral collaboration**

Instead of forcing collaboration between various sectors of the economy and continuing with the identification of challenges and opportunities by ministries, policy-makers and intermediaries should organise platforms which start with informal, personal brainstorming exchanges (see recommendation 3). Such networking events should function as a free market in which ideas and contributions are exchanged. These events would have nothing to do with organising the lobby between sector representatives for state-budgets, but they would function as platforms supporting multi-disciplinary cooperation. The initiatives and project proposals should be small-scale and the self-interest of the stakeholders should enable them to continue with the development of the project until there is a formal commitment and a formal budget. The platform should also organise contests to find the best ideas for these small-scale projects. This small-scale testing identifies those practices which are most relevant for large-scale demonstration. A relatively larger budget will be needed to implement or scale-up winning initiatives that have been tested and prototyped on a small scale, in a living-lab instead of a science lab, and have been subsequently judged as being ready to serve as a large-scale demonstrator for the Canary Islands.

A large variety of ideas should be encouraged, including 'rule-breaking', 'habit-changing', and 'disruptive' ideas, which would not necessarily enjoy the same level of enthusiasm from all stakeholders. For example, the idea of setting up a local ICT platform that would unite the Canary

Islands' provision of rural accommodation for tourists was raised at the ESIC study visit, in June 2013. It sounded like a good idea, but there were problems because many of the houses did not have a permit or proper registration (see also recommendation 12) and because the tourist sector would not back such an idea that supports potential competitors to the 'sun, sand and sea' locations. Thus, the Minister of Tourism might not even be allowed to formally back such an initiative. Perhaps public funding might not even be needed if, for instance, 15% of the rural home owners that want to rent their houses in summer would be prepared to invest € 50. Together this might be enough for some ICT graduates and an institute or company to, at least, launch a project.

Many challenges were mentioned during the ESIC study visit and peer review which have a cross-sector nature, or for which a cross-sectoral solution is required. These include waste management, transportation and logistics as well as agro-food.

Agro-industry is amongst the sectors which can both benefit more from, and contribute more to, tourism. Entrepreneurs in the agro-sector should be supported in their servitisation efforts. For example, cactus growers or aloe vera farms can develop a service for tourists and find ways to sell to tourists directly.

## **9 – Speed up the establishment of new businesses**

A lack of funding has been a challenge for both aspiring and existing entrepreneurs. The current economic situation makes it most unlikely that increased funding will be made available for start-ups, even if it were considered to be necessary and useful. However, there are other ways to help talented people, who have an entrepreneurial mind-set, to establish a business. These individuals should be offered low-cost facilities, equipped with broadband access and open spaces for collaboration (see recommendation 3). Such spaces stimulate interaction and brainstorming with other entrepreneurs that can help test and create new ideas and innovations and kick-start new businesses. These facilities should be located near ITC offices as well as universities or research institutions. The former ensures that young entrepreneurs could have easy access to training and coaching services as well as advice from ITC experts on, for instance, how to apply for funding or how to create a business plan, while the latter provide opportunities to tap into the latest academic thinking.

## **10 - Promote energy efficiency and its use in buildings (especially hotels and tourist attractions)**

According to the European Commission<sup>5</sup>, maximised energy efficiency of buildings is the most cost effective way to reduce emissions, improve energy security and competitiveness and make energy consumption more affordable for consumers. An additional positive factor is increased employment. So far, the underlying economic potential of more energy efficient buildings remains mostly untapped in Europe. This especially applies to the Canary Islands due to the natural conditions (sun, wind, scarcity of fresh water) and the importance of environmental quality for a sustainable tourism business model. Because of the natural, geographical conditions the Canary Islands have been among the first regions to use wind power or to introduce desalination of water but this 'lead-user' advantage has not materialised into a competitive advantage (for instance in the form of exports by the utility or energy sector, or an eco-innovation industry). Both the good natural conditions as well as the available scientific expertise could however be used for eco-innovations for which tourism can serve as a test-bed.

Despite the lack of encouraging legislation, the case of the Lopesan Hotel Group illustrates that all kinds of eco-innovations, including the installation of solar panels and consequent significant reduction of CO<sub>2</sub> emissions, are successful as a business model. In addition, businesses and individuals alike should devote more attention to waste management in order to obtain both environmental and financial benefits. Also the case of Effi-e<sup>6</sup> that has developed and tested an app that stimulates hotel-visitors to reduce their carbon footprint shows that tourism can serve as a test-bed for eco-innovations.

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<sup>5</sup> The Energy Efficiency Directive requires EU countries to create long-term national strategies. These plans target the existing building stock, which is expected to remain in use until 2050 and beyond. The EU countries are expected to submit an initial draft of these strategies by 30 April 2014

<sup>6</sup> A development project that targets the needs of enterprises at the tourism sector and aspires to affect the experience of the visitors and consumers, for more information, please see: <http://effi-e.com/index.php?lang=es&Itemid=126>

Green innovation vouchers have been used in at least 19 countries or regions, including Navarra and Valencia in Spain. These vouchers are no different from traditional vouchers, apart from their focus on particular sectors or areas with positive environmental impact (cf. Green service innovation vouchers<sup>7</sup>). In addition to direct funding from regional or national innovation programmes, green innovation vouchers can be financed through the European Structural and Cohesion Funds. Also, from 2014 to 2020, the amounts available from the EU for energy efficiency and renewable energy sources will be doubled to € 23 billion.

## **11 - Introduce a small scale pilot on smart grids**

Tourists consume significant amounts of energy in the Canary Islands but much of this energy is not produced in the region, as it is transferred from mainland Spain. The region has an abundance of wind and over 300 sunny days each year but these natural conditions for (renewable) energy production are not being harnessed. There are other regions in Europe with less favourable conditions, such as Hamburg in Germany, that are using renewable energy to become the market leader in green energy and to reach the targets set by the EU.

The Integrated Energy Network Wilhelmsburg Central is a good example of a smart grid<sup>8</sup>. The network contains a number of interconnected power generation plants located in various buildings that together form a large 'virtual' power station. Not only power plants but also local residents can feed renewable thermal energy into the grid. There are some residential buildings with solar panels and other with containers of algae, which are used to generate power. This example illustrates that such smart grids could also be implemented in the Canary Islands. It would enable hotels and other establishments to produce energy, instead of just using it. The current legislative framework and the unwillingness of various stakeholders to invest in the greater good of the whole region are potential barriers to progress. Therefore, the suggestion is to start with a small pilot and test how the various ways of producing energy could be combined and how the use of energy could be adjusted between the peak hours.

## **12 – Update regulations**

With the increased speed of technological change and globalisation and the increased awareness of societal challenges, regulations are often designed for previous situations and they are not often updated to match the requirements of current or future situation. Several regulations in the Canary Islands seem to work as obstacles to innovation, so their purposes have to be re-thought. The current difficulties related to legislation include the tax per room/bed for waste; the difficulty of obtaining permission to install solar panels on roofs; trade-tariffs and regulation; as well as difficulties with e-commerce. It is recommended that the rules and regulations are compared with those, for instance, in the Balearic Islands and other competing destinations in order to identify ways to improve the situation. For energy-related matters, it might be beneficial to learn more about the legislative framework of the German federal states. However, many regulatory aspects are not decided at the regional level and therefore it is important to acknowledge the existing red tape and to communicate the difficulties encountered to those who are responsible for it.

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[http://www.greenovate-europe.eu/sites/default/files/publications/GreenConServe\\_Greenovate%21%20Europe%20Green%20service%20innovation%20vouchers%20%282011%29.pdf](http://www.greenovate-europe.eu/sites/default/files/publications/GreenConServe_Greenovate%21%20Europe%20Green%20service%20innovation%20vouchers%20%282011%29.pdf)

<sup>8</sup> <http://www.iba-hamburg.de/en/projects/energieverbund-wilhelmsburg-mitte/projekt/integrated-energy-network-wilhelmsburg-central.html>

## 5. Action Plan and Roadmap

The following action plan is based on the ESIC analysis and outcomes of the peer review workshop with stakeholders in the Canary Islands. The action plan implements the 12 recommendations that have been described in Chapter 4.

Table 1 outlines the list of actions. The timetable indicates that the elaboration of the action lines will largely happen in 2014 and 2015 with additional, ad-hoc funding being required. This will be followed by the implementation phase with support being sought from the European Structural Funds for 2016-2019, as a four year programme is required.

**Table 1: List of actions**

Action line	Brief description of planned policy intervention	Timetable	Source of funding	Responsible organisations or departments
1. Evaluate policies	Assess the wide range of policies and their efficiency and establish a culture of evaluation	As soon as possible, before the introduction of new policies	Canary Islands Regional Government	Canary Islands Regional Government
2. Increase elements of service innovation in support measures	Review systematically the content and funding criteria of support measures, as well as how these are communicated to the potential beneficiaries/users	2014 -2015	Canary Islands Regional Government	Independent evaluator/ organisation
3. Establish an innovation platform	Institutionalise discussions on ideas, challenges and solutions in the form of a platform,	2014 -2015	EU Structural Funds	Canary Islands Regional Government/ Agencia Canaria de Investigación, Innovación y Sociedad de la Información
4. Refine the challenge or polish it further	Focus the strategy, to assign a 'project owner'	2014	No additional funding required	Canary Islands Regional Government
5. Introduce a quality system/standard in tourism	Create and implement a quality system to ensure good quality and to secure a high quality tourist experience throughout the region	2014 -2015	EU funding	Turisfera/Cluster AEI Turismo Innova Gran Canaria
6. Identify tourist profiles	Conduct a study to identify the range of tourists to be able to provide them with tailor-made services and experiences	Once in four years, starting from 2014	Canary Islands Regional Government	Turisfera/Cluster AEI Turismo Innova Gran Canaria
7. Design a diversification strategy	Foster the brand of the Canary Islands as a whole as well as that of each	2014	EU Structural Funds	Canary Islands Regional Government /Isle Councils



	individual island			
8. Increase cross-sectoral collaboration	Focus on informal knowledge and information exchange, support and encourage the free flow of ideas across sectors and disciplines	2014 ->	EU Structural Funds	Canary Islands Regional Government/ Cluster organisations
9. Speed up the establishment of new businesses	Provide starting entrepreneurs with modern office space, ensure access to advice and support joint development activities	2014 ->	Canary Islands Regional Government and/or EU Structural Funds	Canary Islands Regional Government/ ACIISI
10. Promote energy efficiency and its use in buildings (especially hotels and tourist attractions)	Make innovation vouchers etc. available for increasing the energy efficiency of the existing building stock	2014 -2020	EU Structural Funds	Canary Islands Regional Government/
11. Introduce a small-scale pilot on smart grids	Ensure the maximum benefit from the natural conditions for renewable energy sources and take the necessary steps to improve energy efficiency	2014 -2020	Horizon 2020; under the pillar Societal Challenges	Canary Islands Regional Government/ Canary Islands Institute of Technology
12. Update regulations		2014 -2015	Canary Islands Regional Government	Canary Islands Regional Government

A number of risks have to be taken into account when developing and implementing the action plan and roadmap. In addition to standard and highly relevant risks such as consistency in political support, public funding, private commitment and private funding, the following challenges have been identified:

- Lack of willingness to collaborate;
- Lack of trust in public sector actors at the regional, national and EU level;
- Resistance to change, which especially concerns the tourism sector that has relied on the same approach for too long.

Please note that more tools and advice can be found in the Smart Guide to Service Innovation that is available at:

[http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.4\\_service\\_innovation\\_en.pdf](http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.4_service_innovation_en.pdf)

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