Sustainable tourism indicators as policy making tools: lessons from ETIS implementation at destination level

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Abstract:

This paper aims to analyse the roles sustainable tourism indicators (STIs) play in policy making processes at destination level through a three-dimensional framework: 1) instrumental (direct use of information for decision-making), 2) conceptual (awareness raising) and 3) symbolic (legitimate decisions).

The European Tourism Indicator System (ETIS) is taken as a reference system as the only common framework developed by the European Commission to measure and monitor tourism sustainability.

Our empirical research follows a three-step approach. Firstly, we analysed ETIS to investigate its potential to be linked to tourism policy. Secondly, we took Zuid Limburg, the Netherlands as a case study, to assess the role of ETIS pilot implementation at the destination. Finally, we performed a comparative analysis of 11 destinations that have tested ETIS, to better frame the weight of the indicator roles in local policy making processes.

We conclude that so far the STIs developed within ETIS have had limited instrumental and symbolic use, while their conceptual role, related to the social learning process resulting from their implementation, can be considered a pre-condition for other roles to emerge. Moreover, the indicators' role within policy making is closely linked to the specific governance context, influencing and being influenced by it.

Keywords: *sustainable tourism, indicators, European Tourism Indicator System (ETIS), policy making, tourism destinations*

Introduction

Sustainable tourism has the potential to contribute to the 17 sustainable development goals established by Agenda 2030, the common framework agreed in 2015 aimed at balanced growth, in line with the current sustainable development paradigm (Hall, 2011). However, the concerns of sustainable tourism have been questioned in terms of whether they contribute to sustainable development or to "sustaining tourism" (Butler, 1999; Dodds, 2007; Hunter, 1997; McCool, Moisey, & Nickerson, 2001; Miller & Twining-Ward, 2005). For more than 20 years, indicators have been recognised in the literature as useful tools to operationalize the abstract concept of sustainable tourism (Butler, 1999; Choi & Sirakaya, 2006; Hunter, 1997; Torres-Delgado & López Palomeque, 2014). These indicators are used to condense large amounts of information (Gudmundsson, 2003) and simplify a complex reality (Ceron & Dubois, 2003), acting as signals to facilitate decision making based on sound scientific knowledge (Holman, 2009).

In the case of sustainable tourism indicators (STIs) they enable policy makers to assess a destination's sustainability level and monitor change over time (Torres-Delgado & Saarinen, 2014), triggering policy intervention or management responses by setting benchmarks,

baselines or critical limits (Miller & Twining-Ward, 2005). Policy relevance is, in fact, a key aspect in developing STIs (Castellani & Sala, 2010; Choi & Sirakaya, 2006; Miller, 2001; Miller & Twinning Ward, 2005; Rametsteiner et al., 2011; Tanguay et al., 2013). Among their typical policy functions, sustainability indicators serve as a baseline to assess conditions and needs, set targets for policies, assess actions, evaluate and modify policies (UNEP & UNWTO, 2005).

Gudmundsson (2003) and Bell et al. (2011) refer to the above-mentioned roles of indicators as instrumental, a rationalistic approach rooted in the idea that indicators provide neutral information to allow better decision making (Bell et al., 2011; Gudmundsson, 2003; Holman 2009; Rinne et al., 2013; Sébastien & Bauler, 2013). A linear process is meant to take place, from indicators' production, through use and influence on policy processes and outcomes, and decision-makers are supposed to behave rationally, making prompt use of the information. However, this linear process rarely happens (Bauler, 2012; Bell et al., 2011; Hezri & Dovers, 2006; Rinne et al., 2013; Rosenström, 2009; Rydin et al., 2003; Turnhout, 2009) and most often indicators are one of many factors influencing policy makers' decisions.

Policy making is part of the governance process whereby a network of actors including government, businesses and civil society all collaborate to steer tourism (Dredge, 2018; Rasoolimanesh et al., 2020). Therefore, sustainability indicators cannot function as "exogenous factors" (Rydin et al., 2003, p.588) influencing the policy process and outcomes. Instead, they are an integral aspect of the process of governance, acting as "boundary objects", shaping the relationships between actors from different policy arenas (Holden, 2013; Turnhout, 2009).

Drawing on the literature on evaluation research and knowledge utilization (Henry & Mark, 2003; Weiss, 1999) as well as policy learning (Hezri, 2004; Hezri & Dovers, 2006), indicators have been recognised as having multiple roles besides the instrumental one in the policy making process. These roles include conceptual and symbolic ones.

The conceptual role of indicators is related to raising awareness of a problem by opening up dialogue and debate (Gudmundsson et al., 2009), enabling the dissemination of new ideas, influencing worldviews and assisting stakeholders in framing complex policy problems, such as the case of sustainable development (Holden 2013; Sébastien & Bauler, 2013). Consequently, by bringing a broad range of actors together and facilitating conversations among larger communities, indicators serve a social learning purpose (Bell et al., 2011; Farrell & Twining-Ward, 2004; Hezri & Dovers, 2006; Lehtonen, Sebastien, Bauler 2016) and enable a constant debate among competing views on the meaning of sustainable development (Holman, 2009; Pastille Consortium, 2002).

The symbolic dimension, also referred to as political or strategic role, serve to legitimise predetermined decisions and policies already in place, acting as a kind of "façade" to make them look like they are based on evidence (Weiss, 1999), even if these decisions would have been taken without the presence of indicators (Gudmundsson, 2003; Rosenström, 2009). In this case, indicators are purely used to justify certain arguments, hence increasing their legitimacy

(Gudmundsson, 2003). Contrary to instrumental and symbolic roles, the impact of the conceptual role is subtler, fostering enlightenment as information "percolates through the policy systems" (Hezri & Dovers, 2006, p. 95). Rosenström (2009) argues that the conceptual role of indicators must be recognised as a pre-requisite for instrumental or symbolic roles, for if the information provided by indicators is not perceived as relevant, it won't be assimilated by users and will be dismissed.

While these three roles of indicators have been acknowledged in other fields of study (most notably environmental studies and sustainable development), they are still underdeveloped in the STIs literature. This is precisely the contribution this study intends to make to the debate on the usefulness of sustainability indicators in tourism policy making.

Concretely, this study seeks to answer the following research questions:

1- To what extent the three recognised roles of indicators (instrumental, conceptual, symbolic) influence policy making processes at destination level?

2- How STIs design and implementation process relate to these roles?

To this end, we apply a novel, three-dimensional framework (including the instrumental, conceptual and symbolic dimensions) to one set of sustainability indicators: The European Tourism Indicator System (ETIS). Its pilot implementation is empirically analysed using Zuid Limburg in the Netherlands as a case study, as well as a comparative analysis of 11 destinations that have also tested ETIS. So far no evidence has been found in the literature of a similar approach to analysing the impact of STIs (in this case ETIS) on policy making.

The paper is organized as follows. After describing ETIS and highlighting the main literature contributions regarding its roles in policy making, we explain the methodology used and the main results of each of the three phases of the study. Finally, we discuss these results, drawing some conclusions and implications for future studies.

The European Tourism Indicator System – ETIS

The European Tourism Indicator System (ETIS) is the only common framework developed by the European Commission (EC) as an answer to Action 11 of the Communication 352 (European Commission, 2010), which asked to "develop, on the basis of NECSTouR or EDEN, a system of indicators for the sustainable management of destinations".

ETIS was launched by the EC's Tourism Policy Unit in February 2013 as a voluntary management tool to help destinations measure and monitor the impact of tourism in a comprehensive way, allowing the latter to make informed decisions on the sustainable management of tourist destinations. It was tested by over 200 European destinations in two pilot phases between 2013 and 2015.

The first toolkit contained a set of 27 core indicators and 40 optional indicators, subdivided into 4 categories: 1) destination management, 2) economic value, 3) social and cultural impact and 4) environmental impact. Along with the indicators, the toolkit included an implementation framework consisting of seven steps to implement the system (Figure 1) with a multi-stakeholder approach. Devising an implementation framework ensures that indicators' results will be translated into a management response (Twining-Ward and Butler, 2002).

Insert Figure 1 - ETIS implementation framework, adapted from the ETIS toolkit (2013)

After the pilot phases, the set of indicators was revised by the EC with the technical assistance of the ETIS Pool of Experts, to include the feedback from participating destinations. A new toolkit with a set of 43 core indicators and several supplementary indicators was released in March, 2016. The ETIS toolkit is freely available on the EC website (see European Commission, 2016a) and any destination can use it, however no support from the EC is offered.

Although there is currently no mechanism in place to follow up on destinations' use of ETIS, it is still regarded as a reference system in Europe. In fact, several EU funded projects currently use the system as a baseline to create tailor-made indicator sets to assess tourism sustainability at destination level (Coccossis & Koutsopoulou, 2020; Font et al., 2021; Niavis et al., 2019).

The ETIS pilot implementation experience, including its strengths and challenges, has been covered by several authors (Cannas, 2018; Golja & Slivar, 2014; Lopez Palomeque et al., 2014; McLoughlin et al., 2018; McLoughlin et al., 2020; Modica et al., 2018; Tudorache et al., 2017; Zabetta et al., 2014), some of them having been involved themselves in implementing the system at the local level.

The emphasis of these studies has been on the instrumental role of indicators, recognising their relevance in supporting evidence-based decisions to improve tourism management, with some exceptions. For instance, Cannas (2018) considers them as communication tools, serving to engage stakeholders, facilitate the sharing of ideas and assume responsibility for sustainable destination management. Most recently, a study by Font et al. (2021) applies the absorptive capacity theory to explain the challenges faced by destinations to reach the "exploitation" phase, by which indicators are used to inform policy decisions. Along these lines, our three-dimensional framework seeks to identify other roles of indicators in policy making, besides the purely instrumental one.

Methodology

In order to explore the roles STIs can play in policy making processes at destination level, we apply a novel, three-dimensional framework (outlined in Table 1), which is based mainly on

the seminal work of Gudmundsson (2003) and Bell et al. (2011) and further complemented with the STIs literature, to expand the body of knowledge and understanding on this subject. To apply this framework, we adopt a 3-step approach in our empirical research, using multiple qualitative methods. This methodological framework is presented in Figure 2.

Insert Table 1 - Three-dimensional framework. Own elaboration adapted mainly from Gudmundsson (2003) and Bell et al. (2011)

Insert Figure 2 – Methodological framework of the research

First, we examine ETIS links to policy making through extensive desk research on the system, complemented by semi-structured interviews with European commissioners and tourism experts involved in developing ETIS, in order to have a thorough picture of the underlying objectives of the system. Subsequently, we analyse the type of indicators selected to develop ETIS and its implementation framework, to investigate its potential to be linked with tourism policy.

As a second step, the paper examines ETIS pilot implementation at destination level, taking Zuid Limburg in the Netherlands as a case study. Zuid Limburg was selected because it was one of the destinations recognised by the EC following the ETIS pilot phases, for its efforts towards sustainable destination management. Multi-method case study approaches have been widely used in tourism research (Beeton, 2005) and have proved to be valuable to manage the complexity of tourism-related research contexts (Yin, 1994) as well as investigating multi-stakeholders' roles and relationships (Cole, 2014) as in this case.

A 5-week fieldwork project was conducted between October and November 2017 in Zuid Limburg. The fieldwork involved: 1) direct observation and field notes writing, 2) collection and analysis of empirical data produced by the destination during the ETIS pilot phase, and 3) 12 semi-structured interviews to local stakeholders involved in the ETIS implementation. Triangulation is an effective method to validate results using different data sources, limiting personal and methodological biases (Decrop, 1999; De Urioste-Stone et al., 2018).

The Zuid Limburg Tourism Board (ZLTB) provided the documents on ETIS implementation, including the destination dataset and a list of stakeholders involved in the Stakeholders Working Group (SWG) with whom to conduct interviews. To reach other key stakeholders who were not directly involved in the SWG, we employed snowball sampling (Noy, 2008; Patton, 2002). In depth, semi-structured interviews were preferred since this technique allows the researcher to gather the different opinions and perceptions of the interviewees, contributing to building the context in which the studied phenomenon (ETIS and its impacts on policy making) has its boundaries (Czernek-Marszałek, 2020; Gard McGehee, 2012). Interview questions were mainly open-ended to explore the participants' experience with ETIS implementation. They lasted between 45 and 90 minutes, were performed by the first author, were tape-recorded and afterwards transcribed in order to be analysed.

Thirdly, we perform a comparative analysis of 11 destinations awarded by the EC for their sustainability efforts, in order to investigate the different roles of indicators in tourism policy making processes. The technique adopted to select the destinations was purposive sampling, a qualitative, non-probability sampling technique that usually involves a small population and relies on the judgment of the researcher in selecting the units (Altinay & Paraskevas, 2008; Etikan, Musa, & Alkassim, 2016). The type of purposive sampling technique adopted was "total population sampling" (Etikan, Musa, & Alkassim, 2016) which refers to the total population that shares specific characteristics, which in our case were all European destinations that were awarded by the EC at the end of the ETIS pilot phases.

To this end, an online questionnaire was designed, composed mainly of multiple-choice questions and some open-ended questions. The questionnaire was distributed by email and representatives from each destination were identified through the referrals of previously interviewed ETIS experts, as well as through platforms such as Linked In. The questionnaire was available online for one month between December 2017 and January 2018 and all the destinations filled out the form in this period. Zuid Limburg was not included in the sample, as their pilot experience with ETIS had been extensively covered through fieldwork.

The results of the empirical material collected (interviews, questionnaire, ETIS documents, field notes) were analysed by the two authors, through a directed content analysis (Hsieh & Shannon, 2005), using the three-dimensional framework to identify the key themes. Indicators have been assigned a role (instrumental, conceptual or symbolic) when fulfilling the characteristics described in Table 1 and Table 2.

Insert Table 2 - Examples of each type of indicator's role. Own elaboration

In what follows the results of the three steps described in our methodological framework are presented in separate subsections.

Results:

1. Enquiring into ETIS links to policy making

The instrumental role of ETIS is quite evident and is highlighted in several parts of the ETIS toolkits as one of its main drivers, since it is perceived as enabling policy makers to take better decisions based on evidence (European Commission, 2013 p.7, 8; European Commission, 2016a p.10). Furthermore, a key principle of ETIS is shared responsibility for data collection, reporting and analysis among all relevant stakeholders to contribute to destination

management, which might open the possibility for other roles of indicators to emerge and possibly prevail in the end.

ETIS was developed by a consortium led by the University of Surrey as principal investigator, based on the indicators developed by the Tourism Sustainability Group (TSG), also established by the EC. The indicators were refined through comparative analysis against international indicator systems, as well as the feedback provided by NECSTouR and EDEN members, and a methodology was devised in order to use these indicators as a management tool for tourist destinations.

The interviews carried out with the experts involved in developing ETIS (Table 3) revealed that most destinations were at a very early stage with respect to measuring sustainability. Therefore, one of the main goals of the system was to encourage destinations to begin monitoring at least a few indicators (E1 and E2), to raise awareness and slowly add more over time. One of the key points of ETIS was its flexibility and the possibility to customise a set of indicators most relevant to the specific context of destinations (European Commission, 2013; Miller, Twinning-Ward, & Simpson, 2012).

Insert Table 3 - Experts involved in developing ETIS interviewed for the study

The implementation framework and the creation of a stakeholders working group (SWG) was another important element of ETIS, as a means of sharing responsibility for data collection and analysis, in order to manage the destination in collaboration with several stakeholders (E4). In fact, ETIS was meant to provide a picture of the sustainability level of the destination, but the integration of indicators and policy is not automatic; it requires extensive interpretation at destination level to establish policy measures to address sustainability issues (E3). According to E3, "the real work starts after the ETIS exercise is done, to connect the results with policy measures" (E3, interviewed on 23/10/2017).

When analysing the structure of the ETIS system, we are able to see that its organizational scheme follows the sustainability dimensions, namely economic, socio-cultural and environmental, with the addition of the destination management dimension, which is a commonly used organizational scheme to monitor tourism sustainability (Choi & Sirakaya, 2006; Miller and Twinning-Ward, 2005; Schianetz & Kavanagh, 2008).

As for the choice of indicators, ETIS is mainly composed of descriptive indicators (dichotomous, number, grade, ratios) targeted at a large audience, namely destination managers, policy makers, the private tourism sector and other key stakeholders with whom the responsibility for data collection and analysis is shared. However, none of them is assigned specific responsibilities. Moreover, descriptive indicators measure the state, flow or change in human or natural systems but are not directly connected to policy objectives (EEA, 2021). By

contrast, according to our three-dimensional framework, indicators that have greater potential to be directly used in policy making are those which measure performance against certain benchmarks and have strong accountability mechanisms in place.

Therefore, taking into consideration the ETIS choice of indicators and its implementation framework, we can predict scarce instrumental use of the indicators. With this objective in mind, the system should have adopted more performance indicators with suggested targets, in order to evaluate whether or not the results were going in the desired direction. In addition, expert opinions supplied evidence that even though one of the main drivers of the EC was to provide relevant information to tourism policy makers through the instrumental role, the SWG and the overall implementation framework have the potential to allow for wider participation and raising awareness among local actors, enabling subtler influence of the indicators.

2. ETIS Pilot implementation in Zuid Limburg, The Netherlands

Zuid Limburg, part of the province of Limburg, is the southernmost region of the Netherlands, neighbouring Belgium and Germany. It is a popular tourist destination mainly for domestic tourism due to its distinctive landscape, as it is the only area in the country with hills. Since the ETIS definition of destination is flexible, the area chosen to test the system was the entire region comprising 18 municipalities which are members of the Zuid Limburg Tourism Board (ZLTB).

The selection of Zuid Limburg as a case study responds, first of all, to the special mention they received from the EC after the ETIS pilot phases for their efforts in sustainable destination management (see European Commission, 2016b). Secondly, it is due to the fact that the destination showed a strong commitment to working towards sustainability in the tourism sector, as demonstrated by several international awards received (EDEN Award 2009 for Park Gravenrode; WTTC Tourism for Tomorrow Award 2016 for Parkstad Limburg as Best Destination; Top 100 Sustainable Destinations 2016 and 2017 for the entire Zuid Limburg region).

Zuid Limburg participated in the second ETIS pilot phase (from April to December 2014) and the local coordinator during this period was the ZLTB, a non-profit public-private foundation that manages and promotes tourism for the 18 municipalities. A Destination Management Organization (DMO) like ZLTB is well placed to perform this role, as it is in charge of "providing leadership and coordination for the many stakeholders that must contribute and work together" (Spyriadis et al., 2013, p.89). The ZLTB has over 900 members and 75% of their income comes from private sector members, mainly small tourism firms.

To explore the roles of ETIS in policy making, during the fieldwork, we analysed 1) who was involved in the pilot implementation, 2) how the indicators were implemented, 3) which were the strengths and problems encountered and 4) whether the overall implementation process of

ETIS has exerted an influence on policy making processes through the lens of our three-dimensional framework.

From the nine groups represented in the SWG, members from six of them were interviewed (Table 4), since the members from the provincial parliament and the water management company were no longer in their positions, and the member from the hospitality sector did not reply to the interview request. Moreover, two tourism policy makers who were not part of the SWG were interviewed (S7 and S12), as their experience at the municipal and provincial level was considered a valuable complement to the information provided by members of the SWG. Both were proposed by the ZLTB as key stakeholders and they were aware of the piloting of the system in Zuid Limburg.

Insert Table 4 - List of Zuid Limburg stakeholders interviewed

In what follows, the step-by-step implementation methodology of ETIS in Zuid Limburg is discussed, taking as inputs the documents produced by the destination, the interviews with the stakeholders involved and the secondary data consulted.

Raising awareness about the implementation of the system (Step 1) was carried out by the local coordinator (ZLTB) through formal invitations to public and private sector members of the organization, newsletters and a press release to the local media. The destination profile (Step 2) was also created by ZLTB, defining the destination's main characteristics.

The stakeholders to be invited to form the SWG (Step 3) were selected by ZLTB with the assistance of a team of students from Cologne Business School (CBS) led by S3 and S10, who worked side by side with ZLTB during the ETIS pilot implementation. The sectors involved in the group were: the local tourism board (2 participants), academia (5 participants), the municipal public sector (1 policy maker), the provincial public sector (1 member of provincial parliament), the water management company (1 participant), the waste management company (1 participant), the hospitality and gastronomy sector (2 participants) and a marketing company (1 participant).

The criteria for selecting the participants to form the SWG was to invite those stakeholders who were able to access the information needed to populate the indicators. This procedure was suggested in the ETIS toolkit since certain stakeholders would naturally have easier access to specific information depending on their position. However, this approach puts the emphasis on the instrumental role of indicators through data collection, limiting the social learning process that can emerge as a result of working together with different stakeholders to implement indicators (conceptual role). Therefore, several stakeholders who could have participated in the discussions were excluded from the SWG (see Fig. 3)

Insert Figure 3 - Zuid Limburg Stakeholders Map. Source: Own elaboration

To coordinate roles and responsibilities for data collection (Step 4), two meetings were organized with the SWG. In the first one, the relevance of the core indicators and data availability was discussed. In the second one, after a preliminary selection of indicators by the team from CBS and ZLTB, the duties for data collection were assigned, with an online spreadsheet provided as the tool for recording the monitoring results. This data was then collated in the destination dataset by the local coordinator.

As for the data collected (Step 5), Zuid Limburg mainly focused on the 27 core indicators from the first version of the ETIS toolkit and complied with 52% of them. In total, the indicators monitored by the destination were 22.5% of the total possible indicators (14 core indicators and 1 optional indicator). It is important to note that the system is flexible, and destinations can choose a certain number of indicators according to their needs and specific sustainability issues. They do not need to apply the full set of indicators.

One of the positive aspects of the experience highlighted by interviewees was the possibility of working with different stakeholders at the destination. For S4 and S8 this was precisely one of the strengths of the system, enabling partnerships and new projects to emerge from this interaction. Not only was the connection with members of the SWG acknowledged, but also the relationships each of the members had to establish within their own organizations in order to get the information needed for the indicators (S8).

ETIS was recognised as a good starting point for assessing the destination's current situation, together with raising awareness and internalising sustainability at the local level (S2, S3, S10). Other initiatives were made possible thanks to this general awareness raised, such as the sustainability manual for small accommodations. These opinions confirmed the conceptual role ETIS implementation has played at the destination, contributing to operationalising the concept of sustainable tourism, even though this result emerged more as an additional benefit than as a planned output of the pilot implementation.

Regarding the main challenges encountered, the majority of respondents agreed that the lack of time (the data collection lasted about a month) and lack of resources (both financial and human resources) to dedicate to data collection were the main constraints. The availability of data to populate the indicator system and the ambiguity of certain indicators was another issue (S1, S2, S4, S6, S8, S9, and S10). None of the surveys suggested by ETIS were carried out as it was claimed they were time consuming with high costs involved. This is an issue highlighted by other studies on ETIS implementation as well (Golja & Slivar, 2014; Modica et al., 2018; Tudorache et al., 2017) and it was part of the feedback collected from several destinations after the first ETIS pilot phase (Sirse, 2014). These barriers affected the instrumental use of the

indicators (relevant information could not be collected), but they also affected the conceptual use (due to the lack of time needed to invest in the social learning process).

Another challenge was related to the low level of involvement of the private tourism sector (S3, S6), a matter discussed in the literature, especially in the case of small firms and their perceptions of sustainability (Gkoumas, 2019; Koutsouris, 2009; Modica et al., 2018). Specifically, local stakeholders in Zuid Limburg are small, family-run businesses for whom the concept of sustainability is too abstract, and who perceive no sense of urgency regarding this aspect. This is the point made by the ZLTB (S1, S9), which considered ETIS as an academic exercise and not practical enough for entrepreneurs to implement. This coincides with Rosenström's (2009) findings, which state that successful indicators are those which can relate to the users, in particular in terms of achieving their conceptual role of awareness raising. If sustainability is not perceived as a pressing issue by local stakeholders and its benefits are not noticeable (Butler, 1999) it is unlikely that it will resonate with them. In his own words, S11, a business owner committed to sustainability, believes that "it should be a bottom-up process (…) entrepreneurs must have the conviction to start (…) if the government helps it is fine too, but people have to be convinced first".

The analysis of results (Step 6) entailed presenting the data collected through the indicators by the CBS and ZLTB team and some recommendations for the EC that were integrated into the final questionnaire, submitted by the ZLTB at the end of the pilot phase. However, there was no discussion within the SWG about the data collected, to set priorities or design an action plan. Finally, Step 7 (enable ongoing development and continuous improvement) was not carried out, since after the pilot implementation Zuid Limburg did not adopt the system as an ongoing monitoring tool. This lack of continuation was echoed by the experience of several other destinations after piloting ETIS, as they did not see the concrete benefits of continuing the monitoring exercise (Sirse, 2014). According to S10 the EC should have provided more support during and after the pilot phase, as well as maintaining a higher level of attention and visibility.

Insert Table 5 - Main results from ETIS implementation in Zuid Limburg. Source: Own elaboration

From the above-mentioned results summarised in Table 5, we observe that there was no instrumental use of indicators in Zuid Limburg, as they were not used directly to set priorities for the tourism development of the destination. However, as highlighted by many of the stakeholders, indicators played a conceptual role, allowing participants to become more conscious of the sustainability issues at their destination and stimulating them to work together.

Regarding the symbolic role of indicators, evidence was found in secondary data sources, such as the ZLTB Marketing Plan (Zuid Limburg Tourism Board, 2015) where its participation in

the ETIS pilot experience is mentioned as a means of reinforcing their commitment to sustainable tourism and participation in European initiatives (p. 10 & 15). Other sources of evidence were conference power point presentations and articles in the local media, where it is described as the first region in the Netherlands to use the ETIS for managing sustainable tourism. In these cases, the indicators did not have a recognizable impact on their policies and plans but serve a symbolic role to legitimise the actions taken towards sustainable tourism development.

3. Comparative analysis of 11 ETIS awarded destinations

Following the non-instrumental use of the ETIS in Zuid Limburg, we investigated whether this scenario had taken place in other destinations, to better frame the weight of the indicator roles in local policy making processes. Thus a comparative analysis was developed in order to investigate experiences from other European destinations that had tested the system.

The sample was composed of 11 destinations that were recognised by the EC in the joint awards ceremony for the European Tourism Indicator System and Accessible Tourism on April 22nd, 2016 (see European Commission, 2016b). Ten destinations received an award with a ranking from 3 to 1 stars, and 2 destinations received a special mention (one of these was Zuid Limburg). They were rewarded for their outstanding achievements among over 100 destinations that had tested the system and completed the requested feedback. The sample of awarded destinations is described in Table 6.

Insert Table 6 - Destinations awarded by the EC after ETIS implementation

The results are discussed below, comparing the answers from the 11 destinations. Greater focus is given to the different recognised roles of indicators in policy making processes, analysing them through the lens of our three-dimensional framework. These results are summarised in Table 7.

Insert Table 7 - Main roles of indicators recognised by the ETIS destinations

The instrumental role of indicators is widely acknowledged, with 10 out of the 11 destinations strongly agreeing that STIs are useful tools to inform tourism policy and monitor tourism performance at the destination. D3 added that "measuring indicators at the destination is the key to making a successful tourism strategy". Eight destinations considered the main role of STIs "to improve destination management" as well as "to assist in the formulation and

implementation of tourism policies and plans". For this to happen, stakeholders recognise the need of establishing early connections with policy makers to ensure use of the system over the long term. All destinations stated that either the municipal or provincial government was involved in the ETIS pilot project to ensure the use of the system.

As for who should lead the process of measuring sustainability, 8 destinations selected the municipal level, followed by the local tourism board (6 destinations). Since a combination of options was possible, most of the answers suggested more than one actor, and the choice between the local or provincial level depended on whether the destination testing the system was a municipality or a province/region. The combination municipalities plus tourism board was suggested by three destinations. These two actors are in fact the main players at destination level, and the share of responsibility between the two seems logical, since ETIS was designed as a tool for destinations, so it is expected that the responsibility lies at this level.

Continuing on the instrumental role of indicators, 8 destinations claimed to have used the results of ETIS either to incorporate into their current tourism policy or as input in developing a new sustainable tourism policy. For instance, D4 has used them as input for their new sustainable tourism strategy, as they did not have one. Some destinations (D2, D6, D10, D12) explained that they use some of the indicators regularly and combine them with other systems of indicators they have in place.

With regards to the best way to achieve direct or instrumental use of indicators, 8 destinations suggested aligning tourism policy with other relevant policies (such as transport, environment, spatial planning, etc.), making indicators useful for a range of related fields and not only for tourism. Six destinations considered it important to involve policy makers in the SWG, engaging them in data collection and discussion of the destination's priorities. Another 5 destinations suggested matching the selected indicators with tourism policy objectives and 4 destinations proposed selecting the indicators in coordination with the design of tourism policy, thus ensuring that the indicators provide answers to policy questions.

In terms of other roles recognise to indicators, 10 destinations considered "raise awareness about sustainability issues", while 8 destinations selected the criteria "benchmarking" and "share the destination's management responsibility" as main roles, all in line with a conceptual role. For example, D8 mentioned that the indicators were used to communicate with citizens and raise awareness of tourism providers, and the experience has served as an inspiration to create their own sustainability scheme, adapted to their specific needs. With regards to the symbolic role, D10 added that indicators have been useful in legitimising national strategies already in place, while D6 explained the ETIS indicators helped to highlight the work carried out at the destination over many years and facilitate understanding by stakeholders and residents. Therefore, even if the perception of the instrumental role prevailed, several destinations recognised the conceptual and symbolic dimensions of their use.

Finally, in response to the question concerning effective incentives for destinations to implement a sustainable tourism indicator system, 8 destinations considered that an online

platform for collecting data and benchmarking against other destinations was the best incentive for implementing a system like ETIS. This was in fact highlighted by many destinations when the EC collected feedback after the pilot phases (Sirse, 2014), confirming that this comparison and sharing of information among destinations is very valuable. Another highly appreciated reason relates to certifications or labels (6 destinations) since they make visible the effort to monitor sustainability. Other useful incentives were capacity building (5 destinations) and funding to implement the system (4 destinations).

Discussion and Conclusion

The literature on sustainability indicators acknowledges that the latter have several roles beyond the linear process of providing evidence for policy making (Bell et al., 2011; Gudmundsson 2003; Rinne et al., 2013; Rosenström 2009; Sébastien & Bauler, 2013). Building on this literature, the purpose of this study was to explore the multiple roles STIs can play in the policy making process at destination level, understanding policy making as the result of the governance process, whereby a network of actors collaborates to steer tourism (Dredge, 2018; Rasoolimanesh et al., 2020).

To this end, we applied a three-dimensional framework (instrumental, conceptual, symbolic dimensions) through three steps. First, we analysed a specific system of indicators (ETIS), its choice of indicators and its implementation framework, to see its potential direct linkages to tourism policy. Secondly, we investigated the influence of ETIS implementation at destination level, taking Zuid Limburg as a case study, to understand how implementing indicators enables different roles to emerge. Thirdly, we compared the results of 11 destinations that have tested the ETIS system, to better frame the weight of the indicator roles in local policy making processes.

Through the ETIS assessment, we have seen that the instrumental role was one of the main drivers in developing ETIS. This role is highlighted in several parts of the ETIS toolkits (European Commission, 2013 p.7, 8; European Commission, 2016a p.10), acknowledging their relevance for evidence-based decision making. However, we found a possible contradiction between this ultimate goal of ETIS and the design of the indicators' system. ETIS is a voluntary tool consisting mainly of descriptive indicators and directed to a large audience, without assigning specific responsibilities. With this design framework we cannot expect tight linkages to tourism policy. Instead, its expected impact will be more in line with the conceptual role. ETIS might be expected to achieve instrumental use once sustainability is internalised and the system is integrated within the tourism policy of the destination, incorporating performance indicators and benchmarks, to measure progress towards policy objectives.

On the other hand, the ETIS implementation methodology, developed to share responsibility for data collection and analysis through a multi-stakeholder approach, allowed for other roles to emerge. As stated in the ETIS toolkit, "engaging a group to come together and work together

to collect and report information is a powerful way to undertake effective destination management" (European Commission, 2016a, p.12). Even though it can be argued that ETIS adopted a top-down approach (Gkoumas, 2019; Moreno Pires et al., 2014; Schianetz & Kavanagh, 2008), since the set of standardised indicators was provided by the EC, without taking into consideration context-specific needs (Choi & Sirakaya 2006; Pastille Consortium, 2002; Twining-Ward and Butler, 2002), it is also specified that the system is flexible and indicators can be tailor-made, enabling stakeholders to participate in selecting relevant indicators. This is one of the advantages that ETIS is meant to provide (Miller, Twinning-Ward, & Simpson, 2012), as destinations do not have to start from scratch to design a monitoring system (Law, DeLacy, & McGrath, 2017) but can instead build from the ETIS framework, which is especially useful for destinations with no experience in designing indicators. In fact, this is how the ETIS is currently being used, as a number of EU funded projects on sustainable tourism development are taking ETIS as a reference system from which to develop their own, customised monitoring tools (Coccossis & Koutsopoulou, 2020; Font et al., 2021; Niavis et al., 2019).

According to the above premises, a high degree of instrumental use of ETIS at destination level is unlikely. However, it is worth pursuing, since this is usually the indicators' main role recognised in the literature and it does take place (Gudmundsson, 2003; Rosenström 2009). Through the fieldwork performed in Zuid Limburg the authors were able to identify a number of barriers to the ETIS's instrumental role, which can be explained by insufficient attention given to the conceptual role in the first place. The lack of time dedicated to the process and the fact that the selection of stakeholders was narrowed to fit the data collection requirements, contributed to lower levels of awareness about the pilot project and limited participation from the members of the SWG in the data collection phase. This in turn generated poor results that were not considered useful for destination management and were disregarded after the pilot phase. By taking a purely instrumental approach to indicator implementation, they limited the social learning experience among stakeholders, thereby overlooking the potential of the ETIS conceptual role.

Consequently, we can assert that in Zuid Limburg there has been no instrumental use of indicators in policy making. Nevertheless, thanks to the interviews conducted and the documents analysed during the fieldwork, we can argue that the overall process of implementing ETIS has played a conceptual role, influencing the way stakeholders perceive the sustainability of the destination. Indeed, it indirectly led to capacity building, participation in competitions and awards, and the involvement in a Dutch project to test a system for the assessment of sustainability in tourism destinations (SASTDes - Smart Assessment Sustainable Tourist Destinations), a project expected to finish in 2021. We have also found evidence of the symbolic role, as the implementation of ETIS is acknowledged in the destination marketing plan, in formal presentations and in local newspaper articles, to legitimise ZLTB's commitment to sustainable destination management.

Finally, the majority of the ETIS destinations consulted through the online questionnaire stated that they have incorporated the results of ETIS in their current tourism policy or as input in developing a new sustainable tourism policy, confirming that the instrumental role of indicators can be found when context-specific concerns are taken into consideration (Pastille Consortium, 2002) and when there is political engagement (Zabetta et al., 2014). This was mainly the case for those destinations that had experience with sustainability monitoring, some of them with similar systems already in place. Moreover, the conceptual and symbolic roles were recognised by these destinations as well, including the benefits of working with different stakeholders, the incentive to design a tailor-made indicator system for the destination and the possibility of legitimising the work previously done by the destination through the indicators.

Therefore, we can conclude that even though ETIS was developed with the instrumental role in mind and the social learning outcome was considered an additional benefit, its main achievement is in fact related to this conceptual dimension, thanks to its implementation framework, which has enabled a subtler influence in policy making by stimulating the ongoing debate about sustainable development (Pastille Consortium, 2002), raising awareness and influencing stakeholders' worldviews (Font et al., 2021; Rosenström, 2009; Sebastien & Bauler 2013). Bringing together a diverse group of stakeholders to discuss the impacts of tourism and to implement indicators constitutes a social learning process in itself (Bell et al., 2011; Farrell & Twining-Ward, 2004; Hezri & Dovers, 2006; Miller & Twinning-Ward 2005), ultimately improving the governance of tourism and influencing policies aimed at the sustainable management of destinations. In effect, the conceptual role does not have to be considered an additional feature of indicators, but is rather a "pre-requisite" for instrumental or symbolic roles to emerge (Rosenström, 2009). In this sense, the conceptual dimension or "enlightenment" can be considered "the most pertinent type of intended use of indicators, even more than instrumental use" (Gudmundsson, 2003, p.6).

Likewise, the policy making process is far from being linear, depending on a number of push and pull factors which are both site specific and influenced by changes in governance, as well as the governmental and political structure of the destination. Indicators as policy tools are not "exogenous factors" (Rydin et al., 2003, p.588) that influence the policy processes and outcomes, but are rather "an integral aspect of the processes of planning, policy making and politics" (Pastille Consortium, 2002, p.12). By taking a governance perspective to develop and use indicators, we can acknowledge the network of actors interacting at destination level, including government, businesses and civil society (Dredge, 2006), and understand how indicators shape these relationships and influence the policy making culture (Holden, 2013; Rydin et al., 2003). This implies the need for a sound consensus building process with a long term perspective, which is exactly the conceptual role played by the implementation of ETIS as highlighted in our research.

Greater attention should be given to the conceptual role of STIs, as they can create the enabling environment for sustainable tourism to be recognised as a policy problem. Moreover, the

process of implementing indicators helps local stakeholders to embed sustainability in their worldviews, allowing the instrumental and symbolic roles of STIs to emerge.

Further research opportunities could be related to applying the three-dimensional framework proposed in this study to other destinations that have tested ETIS or that are currently using the system. Likewise, this theoretical framework could be applied to other STI systems to draw wider conclusions on the influence of indicators in policy making.

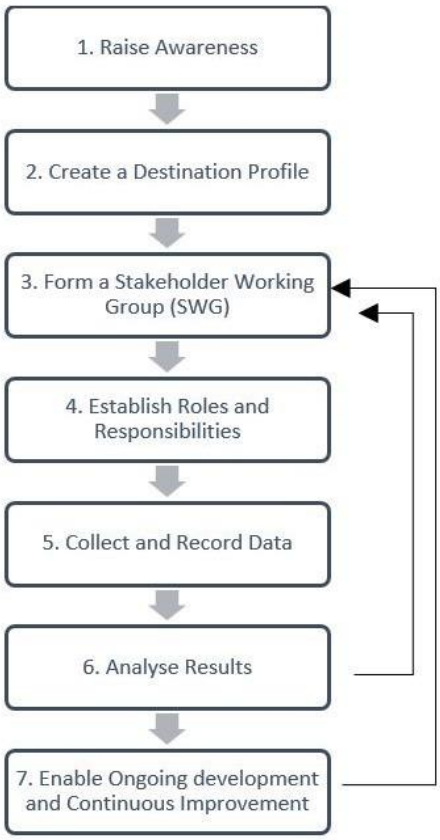

Figure 1 ETIS implementation framework, adapted from the ETIS toolkit (2013)

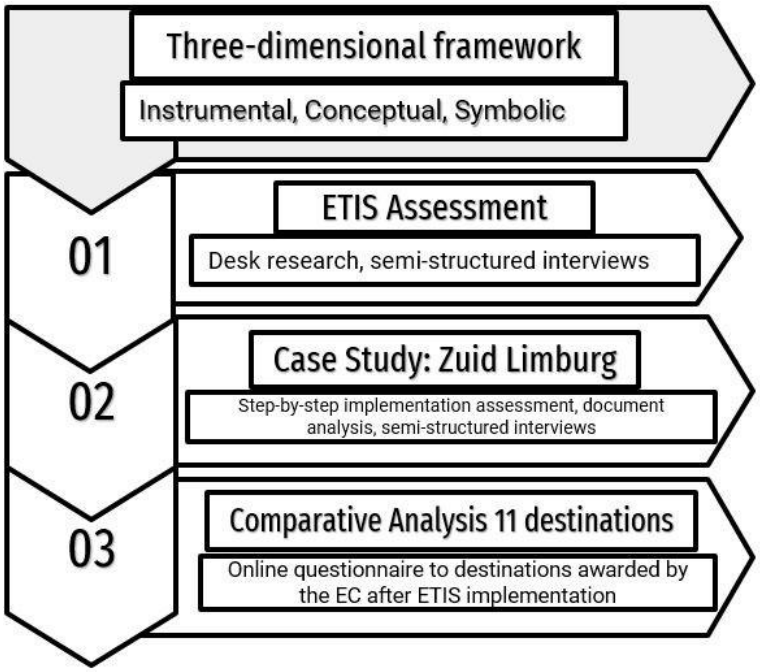

Figure 2 Methodological framework of the research

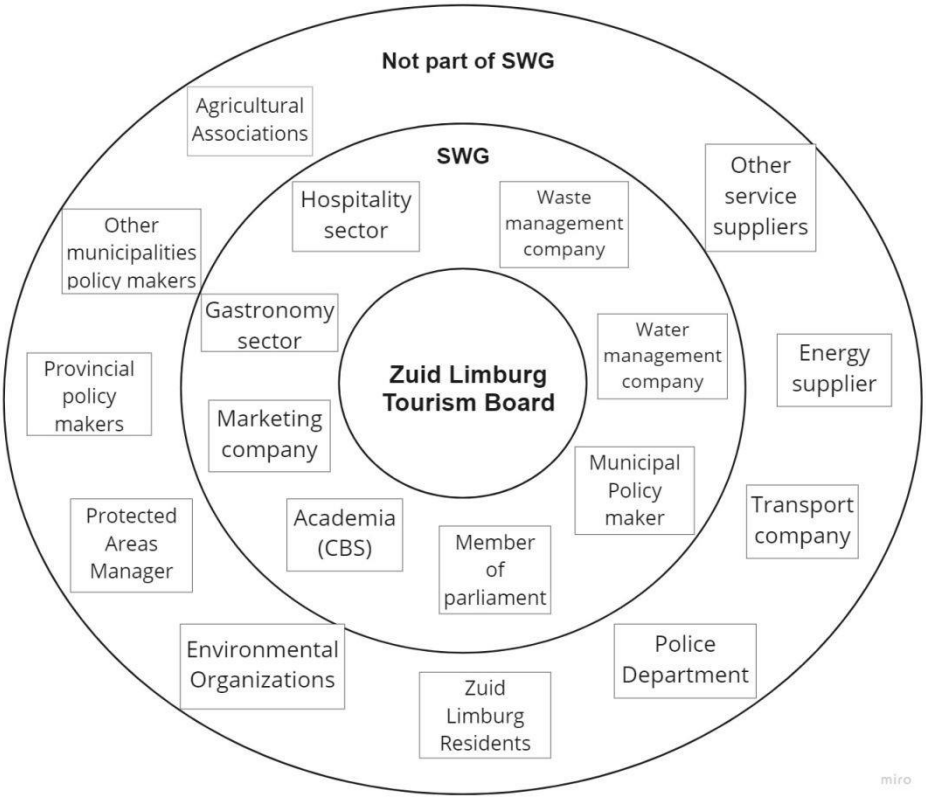

Figure 3 Zuid Limburg Stakeholders Map. Source: Own elaboration

Indicators Dimensions	Characteristics
Instrumental	Indicators are directly used as objective evidence to support policy making at destination level. They are either incorporated in tourism policy to set priorities or used as baselines or benchmarks to measure performance, with well-defined accountability mechanisms.
Conceptual	Indicators influence stakeholders worldviews, serve a social learning purpose, raising awareness about sustainability issues in the destination and contributing to long-term, indirect policy changes.
Symbolic	Indicators legitimise predetermined decisions and existing policies. Also referred to as political or strategic role.

Table 1 Three-dimensional framework. Own elaboration adapted mainly from Gudmundsson (2003) and Bell et al. (2011)

Instrumental role	Conceptual role	Symbolic role
-Assist in the formulation of tourism policies -Assist in implementation and evaluation of tourism policies -Monitor tourism performance	-Raise awareness about sustainability issues -Facilitate discussions among stakeholders -Share destination management responsibility -Allow comparisons between destinations -Apply for sustainability awards and funding -Capacity building -Develop own monitoring system	-Justify work previously done -Present indicators as evidence for stakeholders -Legitimise strategies for sustainable development already in place

Table 2 Examples of each type of indicator's role. Own elaboration

Code	Role
E1	Seconded National Expert, European Commission Tourism Unit (2012-2016), Coordinator of ETIS implementation
E2	Principal Investigator, Study on the Feasibility of a European Tourism Indicator System for Sustainable Management at Destination Level, University of Surrey
E3	Coordinator NECSTouR – Network of European Regions for a Sustainable and Competitive Tourism, involved in the ETIS consultation process during the feasibility study
E4	Expert, Tourism Sustainability Group (TSG), which developed the indicator system that served as the basis for ETIS

Table 3 Experts involved in developing ETIS interviewed for the study

Code	Position
S1	Director Zuid Limburg Tourism Board (ZLTB)
S2	Former ETIS Project Manager, ZLTB
S3	Professor, Cologne Business School (CBS) and part of ETIS Pool of Experts
S4	Project Manager, RD4, waste management company
S5	Former sustainability trainee, ZLTB
S6	Former M.A. student, CBS
S7	Tourism policy maker, Limburg Province
S8	Policy maker, Gulpen-Wittem Municipality
S9	PR officer, ZLTB
S10	Former Consultant, Compass Marketing Agency
S11	CEO, Gulpener Brewery
S12	Tourism Policy maker, Valkenburg Municipality

Table 4 List of Zuid Limburg stakeholders interviewed

	Instrumental role	Conceptual role	Symbolic role
Recognised roles of indicators	- Allow policy makers to see the "whole picture" beyond economic data	- Good starting point to measure sustainability - Flexibility in the selection of indicators - Awareness raising - Connections with different stakeholders - New partnerships and initiatives	- Mentioned as a means of reinforcing its commitment to sustainable tourism and participation in European initiatives
Main barriers to indicators roles	- Lack of time to collect data and discuss indicators - Lack of resources (human and financial) - Data availability - Clarity of indicators - Low level of involvement from private sector	-Data collection limited to a reduced number of stakeholders - Preliminary selection of indicators by CBS and ZLTB -Lack of time to collect data and discuss indicators - Low level of involvement from private sector	-
Perception of stakeholders on the outcome of ETIS implementation	Unsuccessful: - Results were not used and not followed up -The system was not adopted as an ongoing monitoring tool	Successful: - Social learning experience - Awards received - New initiatives launched	Successful: -Reinforce the destination's goals in terms of sustainable tourism development
Suggestions for future adoption	-Clear responsibilities assigned and stronger leadership of the Local Coordinator - Allocation of a budget and human resources to the system - Set up a sustainable tourism strategy related to the indicators	-More awareness raised on ETIS implementation at local and European level - Work closer with university students to collect data as a "win-win" situation	-

Table 5 Main results from ETIS implementation in Zuid Limburg. Source: Own elaboration

Category	Destination	Respondent code
3 stars	Visit South Sardinia (Italy)	D1
	Barcelona Province (Spain)	D2
	Mali Lošinj (Croatia)	D3
	Brocéliande, Brittany (France)	D4
2 stars	Dark Sky Alqueva (Portugal)	D5
	Torroella de Montgrí i l'Estartit and Llancà (Spain)	D6 and D7
	Ljubljana (Slovenia)	D8
	Comunitat Valenciana (Spain)	D9
1 star	Podgorica (Montenegro)	D10
	Abano Terme (Italy)	D11
Special Mention	Andalusia (Spain)	D12
	Zuid Limburg (Netherlands)	-

Table 6 Destinations awarded by the EC after ETIS implementation

Destinations	Instrumental role			Conceptual role							Symbolic role		
	Support evidence-based policy making	Assist in implementation of policies and plans	Monitor tourism performance	Raise awareness about sustainability issues	Facilitate discussions among stakeholders	Share destination management responsibility	Allow comparisons between destinations	Apply for sustainability awards and funding	Capacity building	Develop own monitoring system	Justify work previously done	Present indicators as evidence for stakeholders	Legitimise strategies for sustainable development already in place
Visit South Sardinia	X		X	X									
Barcelona Province	X	X	X	X		X	X	X		X			
Mali Lošinj	X	X	X	X	X		X						
Brocéliande, Brittany	X	X	X	X		X							
Dark Sky Alqueva	X	X	X	X		X	X						
Torroella de Montgrí i l'Estartit and Llancà	X	X	X	X		X	X	X			X	X	
Ljubljana	X	X	X	X	X	X	X		X	X			
Comunitat Valenciana	X	X	X			X	X						
Podgorica	X	X	X	X		X	X						X
Abano Terme	X		X	X									
Andalusia	X		X	X		X	X						

Table 7 Main roles of indicators recognised by the ETIS destinations. Source: Own elaboration

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Footnotes	Changes made
Action 11: *"Develop, on the basis of NECSTouR or EDEN, a system of indicators for the sustainable management of destinations"*	This footnote has been modified and integrated in the main text. Communication (COM (2010) 352 final) has been added as a source of reference
[2] https://ec.europa.eu/growth/sectors/tourism/offer/sustainable/indicators_en	The website has been included in the References when citing the EC 2016 toolkit (EC 2016a)
[3] *"Descriptive indicators show the development of a variable, but are not connected with a concrete policy target".* Source: European Environmental Agency Glossary	This footnote has been modified and integrated in the main text. EEA Glossary has been added as a source of reference
[4] EDEN Award 2009 for Park Gravenrode; ETIS 2016 Special mention for sustainable destination management and accessibility improvements; WTTC Tourism for Tomorrow Award 2016 for Parkstad Limburg as Best Destination; Top 100 Sustainable Destinations 2016 and 2017 for the entire Zuid Limburg region	This footnote has been modified and integrated in the main text
[5] http://www.vvvzuidlimburg.nl/media/107249/vvvzl_marketingplan2015.pdf (in Dutch)	Instead of adding the link to the Marketing plan as a footnote, we have included it as a source of reference (electronic document)
[6] https://limburgtoday.nl/evenementen-overzicht/lancering-ov-toerpas-zuid-limburg/ (in Dutch)	This footnote has been deleted as it was not considered essential information
[7] http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=8731&lang=en	Instead of adding the link to the EC website as a footnote, we have updated it and included it as part of an existing source of reference (EC 2016b, ETIS Award Ceremony)
[8] https://pure.buas.nl/en/projects/smart-assessment-sustainable-tourist-destinations-sastdes	This footnote has been deleted as it was not considered essential information