Strategic E-Tourism Alternatives for Destinations

María del Carmen Calatrava Moreno, Gernot Hörhager, Rainer Schuster, and Hannes Werthner

Abstract Destinations face the already well known problem of a proper positioning in the electronic market place. This includes, besides other issues, mainly the problem of a sustainable business model and booking support. In this paper the Austrian case is described, which is somehow special since Austria was once a leader in e-tourism, both w.r.t. to academic as well to industrial achievements. However, this has changed over the last years. This change was also recognized by major stakeholders, leading to a study to (a) analyse the current situation, and (b) to identify strategic alternatives as future options. These strategic alternatives were based on the results of a status quo analysis of the national and international e-tourism situation, including a website analysis of national and international tourism organisations, interviews with representatives of Austrian organisations and an analysis of IT trends relevant to the tourism industry. The paper describes the results of these analyses, specifies the problem and, finally, presents the identified alternatives. Regarding the latter, the focus is on the description of a so-called "open service platform", which contains means to support cooperation, online distribution, innovation as well as research.

Keywords Strategic options • Destinations • Platform strategy • Service platform

1 Introduction

Austria was a leading destination in the international online tourism. It had early industrial starters in the field, such as Tiscover and other well-known IT companies. Leading conferences such as the ENTER conference, as well as networks of international e-tourism experts (International Federation for Information Technology and Travel & Tourism—IFITT) have been founded in Austria (Buhalis and Law 2008). This position, however, was not maintained due to several reasons not to be discussed in depth here. One issue was—although always underlined—the difficulty to keep up with the speed of innovation, due to the lack of "political" support, as well as missing venture capital. However, this is not only an Austrian

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case. Destinations increasingly have problems to maintain their position and to develop a proper sustainable business model. Initial hopes as well as forecasts that in the Internet service providers will directly access their clients, did not come true. On the contrary, strong middlemen using positive network effects in double sided markets and information asymmetries could occupy a strong and dominating position.

In Austria, as in other countries, the booking market is concentrated on only a few (non-Austrian) players, with a very strong market position (Werthner 2011). Starting with some initial rather informal talks and workshops, this situation was also recognized by central political stakeholders. In consequence, the Austrian Federal Ministry of Science, Research and Economy commissioned a study to identify strategic alternatives as basis for future options, taking into consideration the views of the various Austrian stakeholders. The project "etOpt—eTourism Options Austria" started in November 2012 and concluded in May 2013.

The basis of the work was an analysis of the current situation in Austrian as well as major international destinations. This included an analysis of the tourism websites of all nine Austrian states, several national tourism organisation websites and various Austrian regional websites. Services with regard to e-commerce transaction phases and used technologies were evaluated, with a special focus on booking channels. In addition, some best service practices from each of these tourism websites were identified. Furthermore, interviews with representatives of some of the states' tourism organisations as well as with local tourism organisations were conducted. Finally, innovations and new technologies together with their relevance and benefit for the online tourism sector were assessed. It should also be noted, that all these steps were discussed with e-tourism experts as well as an advisory board, consisting of representatives of each Austrian state's tourism organisations, the Austrian Tourist Office, the Austrian Hotel Association, the Austrian Chamber of Commerce as well as representatives of various Universities and Universities of Applied Sciences.

The structure of the paper is as follows: Section 2 presents the different methodological steps, Sect. 3 highlights some results of the status quo analysis, Sect. 4 sharpens the problem definition, and Sect. 5 presents the different alternatives with a focus on an open service platform.

2 Methodological Phases

The study followed a design approach, starting with a proper analysis and problem description. The scope was to develop an overall strategic framework, sketching conceptual alternatives without implementation. Thus, a proof of concept could and cannot be provided. However, feedback by major stakeholders provided valuable feedback and improved the "system's" framework.

The first part, the status quo analysis, was divided into two packages, each consisting of different methods (see Fig. 1). Step one included a national and

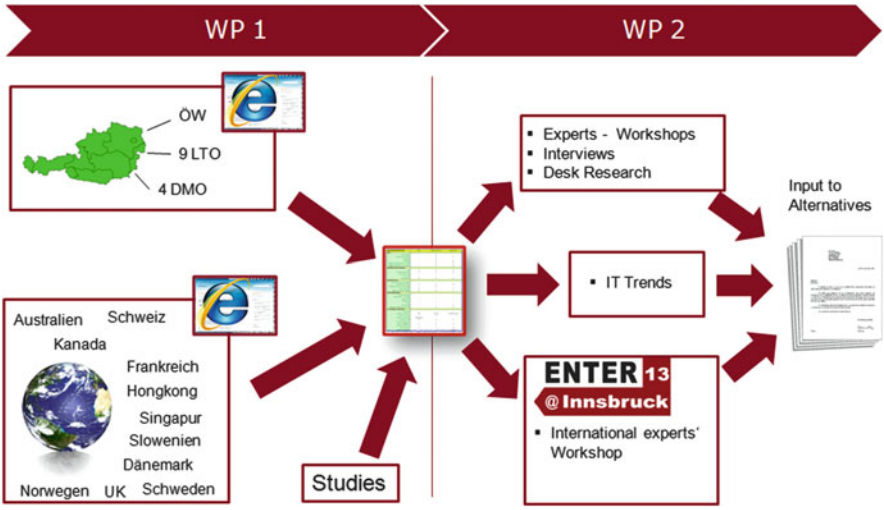

Fig. 1 Steps in the analysis part

international destination website analysis on the basis of a criteria catalogue. This phase also included an investigation of the different booking channels of DMO websites as well as the research results of external academic studies. Both, primary and secondary data were used. The latter were used to develop the design for the primary data collection:

- Primary data
- Analysis of national and international DMO websites
- Interviews with representative of the LTOs, RTOs and NTOs
- Workshop of the Austrian Computer Society on ICT Trends 2020
- Workshop at the ENTER conference 2013 with international experts
- Secondary data (mainly studies)
- Analysis of the national and international e-tourism distribution
- Analysis of external DMO (Destination Management Organisation) websites
- IT trends

Finally, the status quo analysis provided the input for the definition of the alternatives.

For the empirical evaluation, the study included an analysis of national and international DMO websites. The analysis was divided into two steps: first, the creation of a criteria catalogue according to which, services, functionalities and contents were examined, and second, the evaluation of the tourism websites.

The choice of international destinations to be evaluated was based on Buhalis and Wagner (2013); as well as in Gallob (2012); and it also considered best practise DMOs; the choice of the latter based on experts' input. The evaluation looked at 24 destinations (see Table 1), of which 11 were NTOs, 9 RTOs and 4 LTOs. All were examined using the developed criteria catalogue (for details of the criteria

Table 1 Destinations analysed

Local destinations (LTO)	Neusiedler See, Salzburger Sportwelt, Sölden, Zillertal
Regional destinations (RTO)	Burgenland, Carinthia, Lower Austria, Salzburg, Styria, Tyrol, Upper Austria, Vienna, Vorarlberg
National destinations (NTO)	Australia, Austria, Canada, Denmark, France, Norway, Singapore, Slovenia, Sweden, Switzerland, United Kingdom

used see Hörhager (2014)). In the case of a destination providing its website in several languages, national DMO websites were investigated using the German version and international DMO websites, the English version.

To include the views of the tourism stakeholders, personal interviews were conducted. These interviews were based on a general list of questions, which were then amended according to the specific field of work of the interviewee. The representatives of each destination work in different fields within their respective organisations and can be found in Hörhager (2014). The topics of these conversations were based on the first results of the status quo analysis and first drafts of the alternatives. Issues such as online booking, innovation, strengths and weaknesses of the transaction phases and data management were discussed.

With the results of this analysis and the input of an experts workshop at the ENTER 2013 conference as well as feedback from the advisory board meetings, five alternatives were created in the second phase. The problem definition resulting from this status quo analysis (see Sect. 5) showed the importance of cooperation networks and the offer of entire service bundles, as well as products from other tourism segments, rather than standalone products. The definition of the alternatives was also based on the e-commerce transaction phases, i.e., Awareness, Information, Negotiation, Settlement and After-Sales as in Werthner and Klein (1999). All this was accompanied by several discussions with the advisory board. A detailed list of all the identified problems can be found in Hörhager (2014).

3 The Current Situation: Status Quo

3.1 Internet Penetration and Online Channels

In Europe in 2012, 36 % of all holiday sales were made online, in comparison to the U.S. where it was 39 %. Of this online sales share, almost 40 % was handled by Online Travel Agencies (OTA). Only 9 % of the e-tourism online sales were made directly through hotel bookings, tour operators or traditional travel agencies (Tourismlink 2012). Kohl and Partner (2011) reports that in Austria in 2011, 76 % of all hotel booking were made online, including e-mails, online forms, etc. At the same time the OTA market is highly concentrated. In the DACH area (German speaking countries Germany, Austria and Switzerland) two thirds of the

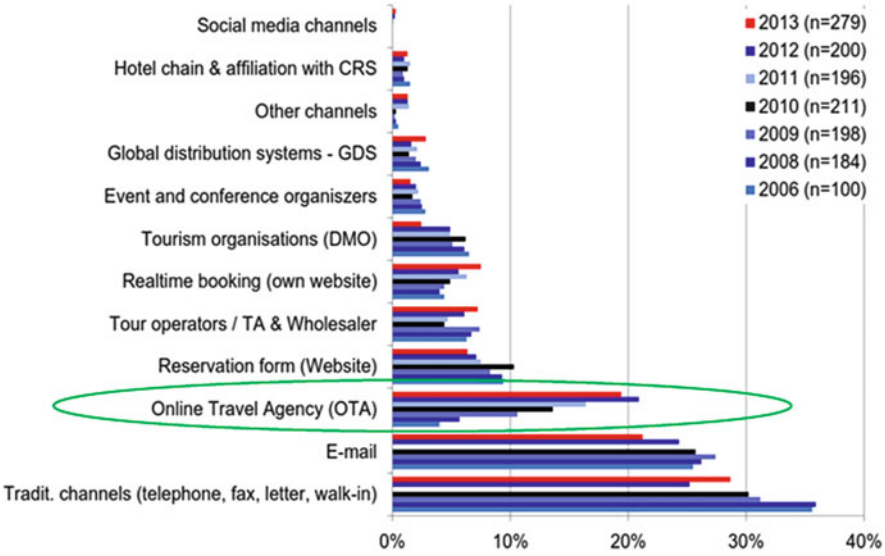

Fig. 2 Booking channels Switzerland 2006–2013 (Schegg 2014); Attention: Market shares in % of all bookings for 2006–2012 and in % of overnights in 2013

bookings via OTAs are handled by only two portals (Booking.com with 35 % and HRS with 28 %). "Hotel.de" takes the third place and has a market share of 13 %. All other platforms only have a small share (above 3 %) of the hotel bookings via OTAs (Schegg and Fux 2012).

In addition, the share of OTAs is rapidly growing. Figure 2, based on the Swiss booking channels from 2006 till 2013, shows that their share is growing much faster in comparison to all other channels. These were more or less constant, some even decreasing. Note that DMOs were not able to keep pace with the OTA trend.

3.2 Website Performance

The Austrian tourism websites achieved fairly good results in many external studies. This is also confirmed in an older study from 2003 (Baggio 2003), where the Austrian NTO page was third out of 16 surveyed destinations behind Switzerland and England.

In two recent studies (Buhalis and Wagner 2013; Gallob 2012) Austria achieved in both cases the fifth place in an EU country ranking. A slightly different result is shown in Duerr et al. (2013) which compared the NTO Websites of Switzerland and Austria. In this case, the Swiss destination website provided, in 8 out of 11 categories, a better service. Only in the three areas "trust", "navigation & usability" and "legal aspects" Austria offers a better service.

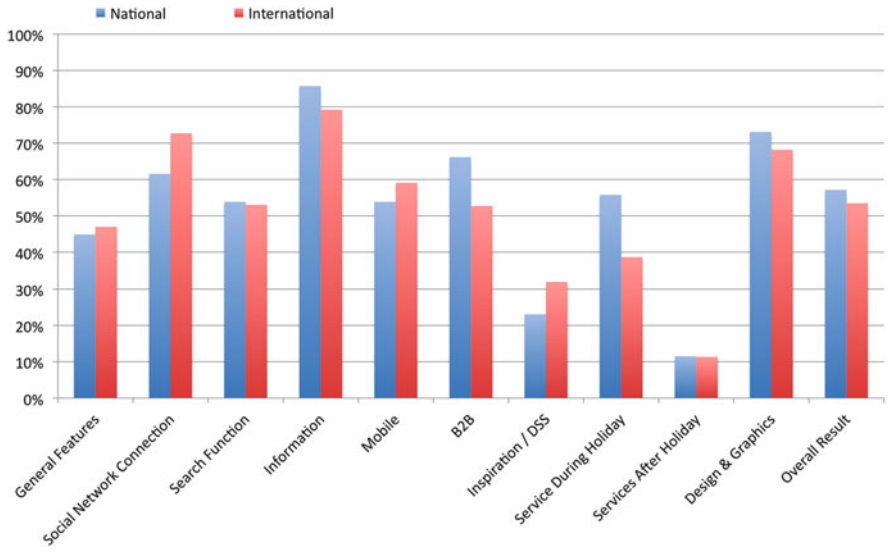

Fig. 3 Comparison of national and international websites (organisations of Table 1)

The project not only used secondary data, but developed also its own website analysis framework. This focused on comparing national and international DMO websites, with a specific focus on services supporting B2B, mobile, post-trip activities and inspirational features. The analysis was based on binary variables. Figure 3 shows that Austrian websites slightly outperform their international competitors.

Special focus was laid on the booking process, not being part of the previous analysis. This is also due to the fact that there are several ways of integrating booking features, which cannot be easily evaluated by simple binary categories. In overall, 20 out of the 24 analysed destinations offer the opportunity of performing bookings, specified by the following process:

- A special web form to specify search parameter
- As result offering a result list with the search query
- A button for booking

An explicit booking process was provided—at the time of the project—only by two NTOs (Norway, Switzerland). All other destinations which provide bookings on their websites, handled this with the help of external partners. None of the national destinations analysed (RTOs and LTOs) had their own booking solution or used a meta search engine. The other tourism organisations analysed used external partners, either by integrating the external service on their own website or explicitly forwarding the customer to the booking engine.

3.3 The View of the Stakeholders

This study also included interviews with several representatives of tourism organisations (in total six persons), showing the following results:

- DMOs see their main job as the provision of information. This is also in accordance with the website analysis.
- They are aware that without an own booking engine, they do not cover the complete tourism life cycle. They knew that they "lose" these data and have no information concerning the buying behaviour of the customer.
- The opinion of the interviewed DMOs on the booking issue varies. Some destinations do not feel responsible for this issue, while for others it is a central aspect. Those working closely with service providers on a local level recognize the problem, in contrast to those who are not directly involved.
- An important issue is the uncertain legal situation. Some DMOs are concerned about the legal consequences, having already encountered problems in the past.
- Nearly all interviewed representatives are sceptical about an Austrian booking solution. A major issue is the fierce competition with the big booking platforms, pointing at the rather high advertising expenditure.
- Finally, the interviews also showed that the DMOs have no revenue model in the digital area.
- In summary, they showed a rather pessimistic view of the future, at the same time, however, they are looking eagerly for joint innovation activities.

4 Problem Definition

A major conclusion of the analysis part was the dominant role of OTAs, related with the fact that DMOs have problems to cover the entire tourist life cycle. The tourist life cycle refers to all phases of a tourist and his/her experience, starting with the "pre-trip" phase, followed by the "on trip/on site" phase and ends with the "after trip" phase. The tourist life cycle can also be divided into the e-commerce transaction phases such as "Awareness", "Information", "Negotiation", "Settlement" and "After-Sales" (Werthner and Klein 1999). This implies not only a loss of revenue but also of data. However, the tourism organisations were aware of this problem and the resulting marketing and strategy disadvantages.

In addition, these organisations have different views concerning the usage of booking engines. In general, one can state that the closer they are to the service providers, the more they see the necessity of a booking solution, and the higher they are in the regional hierarchy, the more they see the legal and political problems. This results in a rather unclear role in the market and understanding of their tasks. This was also observed in the website analysis, showing overall good results, but shortcomings in central transaction phases. The analysis also indicated that e-tourism shows a strong heterogeneity of systems (but this is not only in Austria).

There is a lack of a uniform exchange format for the tourism branch, with all its shortcomings with respect to cooperation. It would be important for DMOs, as they have to work across the various Austrian regions and states.

4.1 "Paradoxical" Spiral

Finally, the analysis showed that the importance of OTAs will continue to grow. At the same time, it is evident that a concentration trend on a small number of OTAs has already begun and that this will also continue. Due to positive network effects in the double-sided market, the already strong platforms will become stronger with every additional input (hotels, customers, reviews, etc.). The more hotels distribute their rooms via the different platforms, the greater the market power of the latter. Owing to the competition and the importance of the OTAs in the booking channels, hotel owners are forced to be present on these platforms. Accommodations are shown in a direct comparison, the products are standardised and usually reduced to rooms and price. Such comparison with only a few parameters eases the cognitive load of customers, with the, for the service provider negative, consequence of lowered prices. In addition, when almost all hotels of a region are present on such a booking platform, the platform may control the booking situation for this region, as it is able to decide in which order the hotels are ranked.

As for OTAs, service providers are in a similar situation with respect to search engines, in most cases Google and its AdWords. The more hotels bid for the same keyword, the hotels outbid each other and consequently increase the respective price. Thus, hotels end up increasing each other's marketing expenditures, while strengthening Google. The more hotels that market their products and website on Google search, the more customers use Google search and the more powerful the search engine Google becomes.

Both activities (OTAs sales and search engine bidding) increase the expenses of the service providers and strengthen the network effects of the platforms. This creates the paradoxical spiral: the expenditures of the service provider for OTA platforms and search engine marketing increases their dependence on the latter, including increased costs. This can be explained by the network effects. The spiral is like a vicious circle. The more effort is made by hotels for selling and marketing their products, the weaker becomes their position with regard to these "central" organisations.

5 Service Platform as Major Option

5.1 Innovation and Platforms

Innovations, also in the tourism market, are often connected with platform strategies. Such platforms offer technologies and services for a broad ecosystem of users and companies (Cusumano 2010a). External innovations create these ecosystems around the platform (Cusumano 2008). The functionalities are provided by partners or competitors, which also use these services at the same time. The platform operator provides the basic functionality and opens the platform to enable external innovation on it. This presents a competitive advantage over so called pure product solutions that have to constantly implement and integrate their own services and innovations.

Platforms have to meet two conditions: first, there must be at least one open technical interface as "a system of use" and second, it has to be easy to be connected. Switching costs and bundling form a strategically important part of platforms by attracting users to their platforms and by offering many different features for one low price and retain users by making it technically difficult to move to another platform (Cusumano 2010b). Obviously, the value of a platform increases with the number of participating companies and/or users.

Tourism destinations would nearly perfectly meet the prerequisites for an industry service platform. They already have the required regional/national ecosystem (users, service providers, complementary services & products, content, advertisers and channel partners) to form a successful platform. There is a kind of a structural equivalence of a Web network/platform strategy and a destination's cooperation strategy. Destinations could use a platform strategy in three different ways: firstly, they could create critical mass and increase their distribution possibilities; secondly, such a strategy would facilitate a faster technological and innovation process due to its openness; thirdly, tourism organisations could also promote the cooperation with other branches. This is especially important, since tourists look for a bundle of comprehensive tourism experiences, not only hotels or individual activities. Finally, such a platform would enable the bundling of know-how, with a closer relationship between research and innovation. One could also imagine that such platforms could provide data for the analysis of consumer behavioural or product development, with a short as well as a long term perspective.

5.2 Open Service Platform

The following alternatives were defined in an iterative way integrating the comments of the advisory board as well as a number of external experts:

1. Keep the status quo
2. Data harmonization
3. Comparison platform
4. Booking platform
5. Open service platform

These alternatives are conceptually defined and cover different problem domains and needs of the Austrian e-tourism industry, with the exception of the first alternative, which reveals the problems of the e-tourism environment and the resulting consequences. However, it also contains suggestions for improvements leading to a modest change of the situation. Alternatives 2–5 build on each other. Hence, certain technical or conceptual structures can be, and indeed have to be, partially integrated across the different alternatives. This means, for example, that the result of alternative 2 (the uniform exchange format) is also necessary for alternatives 3, 4 and 5. Alternatives 3 (comparison platform) and 4 (booking platform) are classically orientated according to the e-commerce transaction phase model, covering the phases "Search" and "Negotiation" (alternative 3), while alternative 4 covers all five transaction phases. Alternative 5 (open service platform) is a new approach and is not structured according to the transaction phase model. However, since this is an open and flexible platform with core functionalities to external service providers that develop add-on services, this alternative may also cover all transaction phases and the touristic life cycle.

The service platform operates and cooperates on three different levels:

- Integrating tourism service providers for a critical mass
- Bundling different tourism offers to packages
- Integrating offers from different branches (health, agriculture, education, etc.)

More generally, it can be seen as an intelligent "service bus" offering open interfaces for market players. These market players have access to both services and content. The platform is open to all players in the tourism area: tourism organisations, service providers, suppliers, operators, industry partners, science and research as well as service consumers. The core functionality and the basic innovations are provided by the platform owner. Add-on services and innovations could be developed by the afore-mentioned tourism players. Thus, the platform constitutes an open and flexible distribution and innovation platform.

The core system includes a uniform data (exchange) format, various interfaces and rules of participation. On the one hand, the system is able to exchange data and services and on the other hand, the system connects software extensions of IT service providers. Customers do not access the platform directly, but use the applications of these partners. In this way, the platform serves as the backbone for creating new services. Basically, this solution works like a tourist market place with open interfaces. In addition to the distribution of tourism services and data, it is a market place ("Austrian Tourism App Store") for further applications. The data management is decentralized and thus, it allows each participant an on-demand availability of the data. Each operator runs its own business according to the

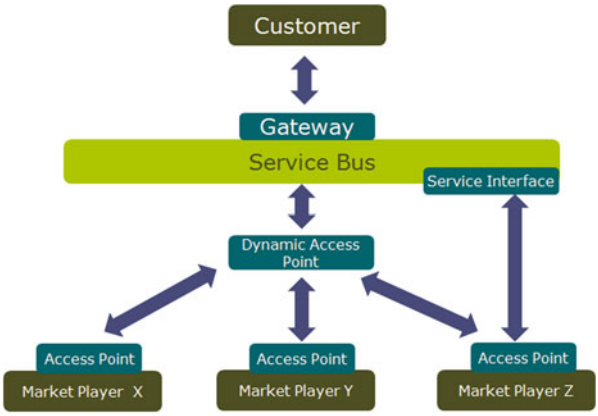

Fig. 4 Open service platform and its components

platform rules. Not only tourism players could benefit from such an approach as it is open to include other areas by cross-domain interfaces (e.g., automotive industry, agriculture, health, education, etc.).

The platform consists of the following components (see also Fig. 4, and for more details Schuster et al. (2013)):

- Service bus: This is an intelligent hub processing outside requests and forwarding them to the appropriate interfaces. It not only has routing functionalities, but also includes business logic and rules. The customer may access services only indirectly through the gateway
- Access point: These are the communication interfaces between market players and service bus. Every market player has its own access point, which includes the market players' data and synchronisation procedures. The service bus handles the data once a request was submitted. The access point owner (service provider or destination organisation) is able to unlock all the data or only parts thereof.
- Dynamic access point: The service bus uses dynamic access points to link different access points to create dynamic packages. The bundling of all possible products happens in real-time in compliance with availability. The dynamic access points are a virtual part of the service bus and are instantiated by the service bus on demand.
- Gateway: This is the interface to the demand side and is visible to the customer. Via the gateway all customer services are available. The core functionality of the gateway is to handle complex search queries. The open service platform offers a gateway with basic functionalities, which can be expanded by the service providers. Any number of gateways (customer applications) can be integrated.
- Service interface: The service interfaces open the platform to the market. Technology partners can connect to the service bus and integrate their external tools and applications via these interfaces. These can be extended by trusted

partners (e.g., IT companies, but also universities or other research & development entities).

As the defined alternatives are conceptual options on a strategic level, no formal evaluation was possible. This could only be done if they would be technically and organisationally implemented. However, as they were iteratively developed and nearly permanently discussed with the board and other experts, one may at least assume their feasibility. One should also note, that their description not only contains technical features, but also cost estimates for both development as well as operation (Schuster et al. 2013).

6 Conclusions

The paper describes strategic e-tourism options for destinations. Although this was done for Austria, it can be assumed that it might also be applicable in other destinations. The design was based on an analysis of the current situation, including national and international examples, review of IT trends as well expert interviews and workshops. The quality and feasibility of the designed alternatives was improved by a permanent feedback with an advisory board.

Overall, the results showed that DMOs and their tourism websites offer good features and services, with the major limitation of not covering the entire tourist life cycle. Not only in Austria the booking market is dominated by few OTAs. In this context, the paper develops a so called "paradoxical spiral"—the more providers spend for OTAs and search engine marketing, the more they become dependent on these platforms.

The developed alternatives are on a strategic level that can only be evaluated if a proof of concept would implemented, which is beyond the scope of the project. Especially the open service platform, following a platform and cooperation innovation strategy, represents a promising answer for destinations. This conclusion also had a positive public response and was even discussed in the Austrian parliament. However, this did not lead yet to concrete steps to implement this solution.

A final note: the probably most important major result of the study was the insight, that the decisive issue would be the development of an innovative ecosystem of research and innovation. Since the speed of development does not decrease, research and innovation are crucial to keep up with it.

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