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**Article**

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## EVOLUTION OF AN INNOVATION NETWORK IN TOURISM: TOWARDS SECTORAL INNOVATION ECO-SYSTEM

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**Abstract**

Networks broaden the space for sourcing knowledge and skills for innovation in tourism beyond traditional actors and provide the framework for interactions, cooperation and knowledge sharing among them. The research focuses on complex relationships between the actors linked via web platform in generating ideas and implementing innovation in tourism. It assesses the dynamics of web platform evolution towards sectoral innovation eco-system in tourism. Applying case study methodology and unique data set we analyse the Bank of Tourism Potentials in Slovenia (BTPS), a web platform for the promotion of innovation in tourism. BTPS is considered an organizational innovation that leverages innovation in tourism and results in a number of new services, processes and business models. The originality of the paper derives from an in-depth analysis of actors' networking, collaboration and mutual learning in implementing innovation. The characteristics of interactions between actors translate into the emerging patterns of BTPS development and suggest that the web platform is assuming the characteristics of the innovation eco-system in tourism that can be transferred to other environments as well. Finally, areas of future research are proposed.

**Keywords:** innovation platform, networking, open innovation, collaboration, knowledge sharing, innovation eco-system

**JEL Classification:** L17, L 83, O32, Z32

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## Introduction

Ongoing structural change and technological advances broaden the scope for innovation, bring complex interactions and collaboration between private, public and third sector actors in the innovation process resulting in new business models. Services increasingly dominate economic landscape introducing both technological and non-technological innovation. Open service innovation is advocated as a means to source knowledge from many firms and customers (Chesbrough, 2011). New characteristics of innovation apply also to tourism industry where information-communication technologies (ICTs) support product, process and organizational innovations by changing the way how suppliers and customers interact. Furthermore, ICTs facilitate the emergence of a myriad of new services - from simple online booking of hotels to mobile applications that enable the tourists to experience niche and personalized services all over the globe. Tourists are better informed, easily share experiences over social networks or via word-of-mouth. Networks enabled by web platforms significantly enhance the potential of open innovation in services, leverage marketing channels and bring new actors on board the innovation process. They facilitate the emergence of an ecosystem in which creativity, collaboration and networking among actors in tourism are encouraged (Karakas, 2009; Abbate and Souca, 2013) and empower consumers to co-create new services. (Gretzel et al., 2015).

While acknowledging the diverse impacts of web platforms for disseminating information in tourism (Corfu and Azevedo, 2015) the aim of the paper is to examine whether the mechanisms and relationships empowered by the web platform could lead towards evolving innovation eco-system for the promotion of innovation in tourism. The focus is on analysing the dynamics and directions of change of the platform for innovation in tourism (e.g. Bank of Tourism Potentials in Slovenia), on complex relationships between the actors enabled by the platform and its broader impacts. The contribution and new knowledge relates to the evolution of web-enabled networks in tourism industry that are based on interaction, knowledge sharing, mutual learning, and innovation.

After the introduction, the paper discusses theoretical background for the analysis and examines theoretical concepts relevant for the study of the role of platforms for innovation in tourism. We refer to service innovation and specificities of tourism in that respect; open innovation; public private innovation networks in services; innovation systems; sectoral innovation system, and finally to innovation eco-system. Section on methodology explains the rationale for case study analysis of the innovation platform that is underpinned by the unique dataset generated through the platform and by in-depth examination of its development. The central part of the paper addresses the evolution of the Bank of Tourism Potentials in Slovenia<sup>1</sup> (BTPS) from the perspective of innovations introduced, the variety of actors involved and their interactions. Secondly, we assess how the features of different theoretical concepts pertaining to innovation are incorporated into BTPS evolution in order to detect new characteristics assumed by BTPS throughout time. We seek to evaluate the pattern of the BTPS evolution and whether it develops in the direction of sectoral innovation eco-system in tourism. The final section concludes with the discussion of main findings that bear implications for future development of BTPS and similar innovation networks.

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<sup>1</sup>BTPS is a web platform for the promotion of innovation in tourism

## **1. Theoretical background**

The phenomenon that we study (evolution of the innovation platform in tourism) is characterized by a mix of features that belong to several theoretical concepts and literature, such as service innovation and tourism innovation specifics; open innovation; innovation networks and public private innovation networks in services; innovation systems, sectoral innovation system and innovation eco-system. Each of these concepts is relevant from the perspective of creating a supporting framework for innovation in tourism and is discussed below.

### **1.1. Service innovation and innovation in tourism**

For long, the research on innovation was biased to technological innovation, neglecting dynamic structural changes and tertiarization of economies. The contributions of the pioneers of innovation literature related to services pointed to the need to assimilate the fundamental characteristics of service innovation into innovation discussion, such as: intangible and less visible nature of service innovation making it difficult to define, conceptualize and measure (Miles, 2002); lower research and development intensity compared to manufacturing and reliance on incremental rather than radical innovation (Gallouj, 2010; Djellal et al., 2003); mainly social with intensive relations between the producers and customers (Sundbo, 2001); largely demand driven and responding to user needs that provide critical incentives (Sundbo and Toivonen, 2011). Service innovation is multidimensional and to a large extent characterized by organizational changes that include new service concepts, new client interface and new service delivery systems (Drejer, 2004; Van Ark et. al., 2003). The intensity of technology use differs among services and accordingly also the opportunity for technology induced innovation. Due to large heterogeneity of services, the basic features of service innovation may apply differently to individual services.

As far as distinct features of innovation in tourism is concerned there is no homogenous tourist product or service, but a bundled service experience with several components where innovation can happen in one part or in several components. A comprehensive research approach is suggested that would include all dimensions of innovative performance and capabilities - embracing organization learning capabilities and knowledge development as well. Knowledge related activities should focus on: embodied knowledge (contained within the owned equipment), disembodied knowledge (obtained via open sources), and knowledge transferred from staff training and learning and other actors (Camisón and Monfort-Mir, 2011). In addition, network capabilities need to be considered as they generate social capital that influences the innovative activity of tourism firms. The intensity of these effects differs between the internal and the external network alliances, the latter being superior (Petrou and Daskalopoulou, 2013).

Hjalager (2010) proposes five modes of innovation in tourism: product or service innovation, process innovation, managerial, marketing and institutional innovation. Innovations should create impacts, which change the properties and varieties of tourism products and services, enhance tourist experiences, increase productivity of tourism providers, create new destinations, improve mobility to and within destinations, change the way of information exchange inside and outside of provider's boundaries, and change the institutional logic and the power relations (Hjalager, 2015).

Ongoing changes in tourists' behaviour and related demand driven requirements, force providers to innovate continuously. Further disruptive dimension is brought to tourism via technology (especially web platforms and mobile applications) with new business models and direct engagement of customers in service creation and delivery, which enable the creation of new open online entry points and related open innovation opportunities.

## 1.2. Open innovation

The open development collaboration concept was - in some or other form, scale and term - present in human society for ages (Huizingh, 2011) but it was Chesbrough's research that popularized "open innovation" as a term and concept, suggesting that firms should open their innovation activities by using internal and external ideas, as well as internal and external paths to market (Chesbrough, 2003). The technological developments as well as theoretical contributions paved the way for an approach referred to as user-generated innovation that is complementary to open innovation. Broadening the range of actors in the innovation process with the users leads to innovation democratization (von Hippel, 2005) and to unveiling the development of innovation in the inbound and outbound direction (Huizingh, 2011; Sisodiya et al. 2013).

Another important dimension of open innovation concept is related to the role of intermediaries that provide support to companies in their innovation activities by controlling the flow of knowledge and resources in regulated innovation networks (Bakici et al., 2010). Open innovation platforms enable the search for the missing partners and knowledge in the innovation process. They encourage creativity in solving challenges, promote networking and knowledge sharing, facilitate access to experts and clients. General motivation to participate in the open innovation platform activities as knowledge contributors are financial rewards and/or reputation (Abbate and Souca, 2013) or providers' and customers' mutual benefits of the new product and service development processes (Gustafsson et al., 1999; Sigala, 2012).

The combined effect of dynamic developments of ICTs and of open innovation models empowers customers to play an important role as the providers of reliable market intelligence. Customers act as a source and evaluators of new ideas and opportunities, they participate in the development and improvement of products. Moreover, they contribute to efficient marketing of products and services which generate genuinely meaningful experiences to them. Such role of customers is particularly important in tourism related open innovation platforms (Abbate and Souca, 2013) since the tourists are becoming increasingly informed, connected through online social networks and progressively involved in the group and community creative processes (Tan et al., 2013). Together with tourism providers and their partners, they are gradually creating open and connected systems throughout all phases of value creation, including those before and after product/service consumption (O'Cass and Sok, 2015).

In the last decade, open innovation concept was adopted by diverse industry sectors, company types and sizes (Huizingh, 2011). They have developed different levels and strategies of open innovation that link industry, university and government sectors in the triple helix of innovation (Abbate and Souca, 2013). Furthermore, civil society and individuals are becoming increasingly important for open innovation, especially so in networks related to services (Bučar et al., 2013) that are discussed below.

### 3.3. Innovation networks and public-private innovation networks in services

Owing to increased technological complexity and fierce competition the innovation actors need to collaborate and create networks to complement their knowledge, skills, competences and technology in order to implement the innovation more effectively. In such context the locus of innovation is found within the networks of inter-organizational relationships that sustain a fluid and evolving community. It is being claimed that innovation networks enable learning by providing timely access to knowledge and resources that are otherwise not available. (Powel et al., 1996). Research on innovation networks shows a strong bias in favour of networks where manufacturing companies collaborate in R&D activities with research laboratories to develop new technology while networks resulting in non-technological innovations are not addressed. (Edquist, 1997). Similarly, the role of services and their specific innovation patterns are fairly neglected. At best, the analyses refer to financial and consultancy services as auxiliary elements that play inferior role in innovation networks (Djellal and Gallouj, 2013).

This gap is addressed by a novel concept of public-private innovation networks in services (PPINS) which is of fairly recent origin<sup>2</sup>. In fact, the concept of PPINS introduces and integrates the theoretical approaches on service innovation with the innovation network theory by positioning services at the core of innovation networks. The scholars highlight three key features of PPINs: the interactions and collaboration between public and private actors<sup>3</sup> in developing innovation; the actors are mainly providers of various market services; non-technological innovation (invisible) is the prevailing type of innovation within PPINS, even though technological innovation (visible) can also emerge (Djellal and Gallouj, 2013).

These features indicate that the concept of PPINS widens the scope of innovation networks. Also, PPINS take advantage of the complementarity of public and private actors' knowledge and competences thereby producing synergies. In traditional innovation networks the profile of actors that collaborate in the innovation process tends to be restrained to qualified professionals with high-tech and other sophisticated skills. To the contrary PPINS integrate a variety of actors with diversified knowledge base whose networking and collaboration results in both non-technological and technological innovation. The openness of innovation space to participation of non-professional actors suggests that PPINS align well with the concepts of democratization of innovation (von Hippel, 2005) and open innovation (Chesbrough, 2003).

### 1.4. Innovation systems, sectoral innovation systems, innovation eco-systems

The concept of innovation networks is close to a more comprehensive concept of innovation systems (IS) and the former could be looked at from the perspective of being the component of the latter (Gallouj et al., 2013). After Lundvall (1985) coined the term systems of innovation to point out the importance of networks and elements that interact Freeman proposed a concept of national innovation system as a network of public and private institutions interacting in development and diffusion of the new technologies

<sup>2</sup> It was developed within FP7 project ServPPIN carried out in 2008-2011 period.

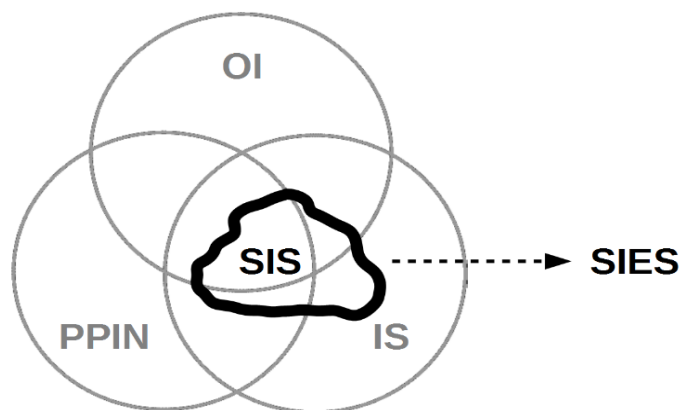
<sup>3</sup> Third sector organisations are also included.

(Freeman, 1987). Edquist (1997) understands IS as an interdisciplinary concept with a mixture of economic, political, organizational, social, institutional and other factors impacting development, diffusion and the use of innovation. It seems that interaction among different stakeholders is the central element of most definitions of national IS. The concept of national IS has been widely adopted in policy design and also translated into complementary innovation systems, such as for example regional or sectoral innovation system. The latter is of special interest in the discussion of the conceptual underpinning of innovation in tourism of interactions between actors and trajectories of change.

The definition of a sectoral system of innovation captures the main elements thereof and is applicable to manufacturing or service industries. Sectoral system of innovation is a set of new and established products for specific uses and the set of agents carrying out market and non-market interactions for the creation, production and sale of those products (Malerba, 2002). These systems have a knowledge base, technologies, inputs and demand (existing, emergent and potential). The agents are individuals and organizations at various levels of aggregation, with specific learning processes, competencies, organizational structure, beliefs, objectives and behaviours. They interact through processes of communication, exchange, co-operation, competition and command, and their interactions are shaped by institutions (Malerba, 2002). Sectoral IS focuses on individual sector, which can extend beyond state borders, unlike the national IS. Applying the characteristics of sectoral system of innovation to tourism Aldebert et al. (2011) emphasize its changeability and complexity fuelled by evolving knowledge bases and dynamic shifts in technology, heterogeneity of products and actors.

Some scholars contend that the concept of IS does not pay attention to social dynamics as reflected in interaction of various cultural, economic, institutional and technological factors that takes place between the actors and argue that the concept of innovation eco-system is more appropriate (Jucevicius and Grumadaite, 2014). They understand it as a smart system explained by the characteristics of complex adaptive systems. While there seems to exist no unifying definition of the phenomenon discussions emphasize characteristics of the innovation eco-system that distinguish it from the concept of IS. The latter builds on the perspective of institutional economics where institutions can be influenced by policies while the former is suggested to be more autonomous and to evolve in line with market demand. Interactions between the actors are spontaneous and self-organized (Laihonen, 2006; Jucevicius and Grumadaite, 2014), dynamic (Cilliers, 1998) and evolve in non-linear and non-hierarchical ways, combining top-down and bottom up approach that fosters networking (Kominos et al., 2012). Innovation eco-systems are flexible, adaptive and can change to keep the momentum (Uhl-Bien et al., 2007). Notwithstanding the differences between IS and innovation eco-systems some scholars see them as supplementary concepts rather than contradictory (Mercan and Göktas, 2011; Jucevicius and Grumadaite, 2014) while others argue that innovation eco-system is a metaphor rather than a rigorous construct (Oh et al., 2016).

Our interest in discussing the concept of innovation eco-system is grounded on the hypothesis that the sectoral innovation system could evolve in the direction of eco-innovation system in a particular sector. Brief overview of several theoretical concepts that underpin innovation shows a certain degree of overlap and complementarity between the concepts, but also some idiosyncratic features (figure no. 1).



**Figure no. 1: Theoretical concept**

*Notes: OI: open innovation; PPIN: public-private innovation networks; SIS: sectoral innovation system; SIES: sectoral innovation eco-system*

We apply these concepts to the innovation platform in tourism (BTPS) to assess the evolution of the BTPS and examine whether the direction of change is in line with the concept of the innovation eco-system. Before doing so we describe methodological approach to analysing the dynamics and evolution of the platform for innovation in tourism.

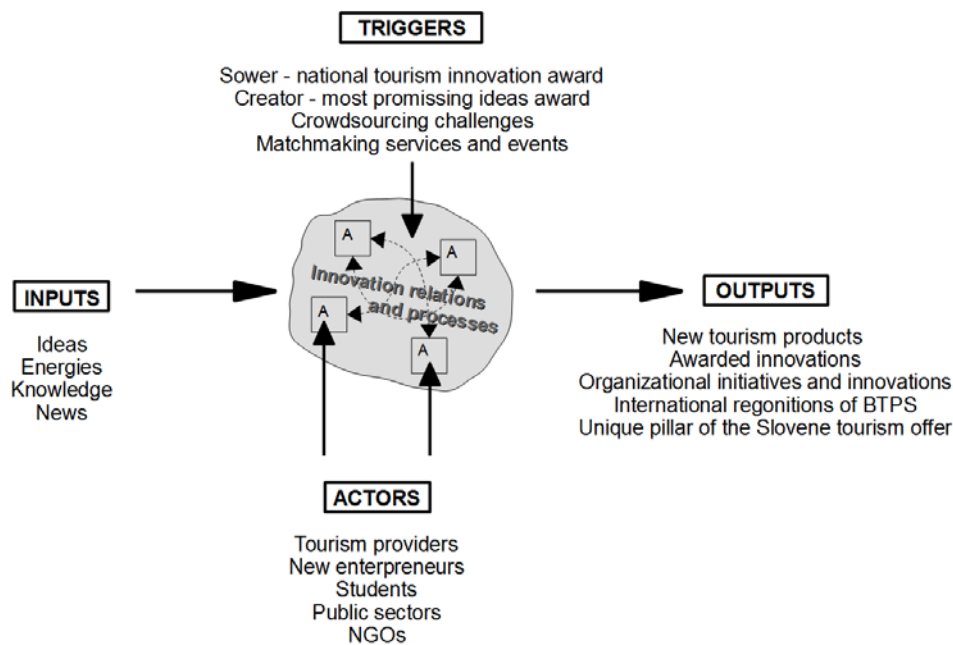
## 2. Methodological approach

Departing from a general absence of adequate innovation statistics in tourism (Hjalager, 2010) that would allow to capture highly diversified set of new niche services enhanced by web platforms we apply case study approach, used regularly in the research of tourism innovation (Liburd and Hjalager, 2010; Peng & Lin, 2016) and hospitality (Singh, 2011; Strobl and Kronenberg, 2016). It is observed that when it comes to innovation cooperation between the actors there is a need for in-depth case studies focusing on the characteristics of successful innovation partnerships, their emergence, management and sustainability (Larson, 2009). In a research approach to tourism intrapreneurship phenomenon, Smith et al. (2016) suggest that case study approach can help in answering questions of how and why related to observed phenomena and context. They applied a conceptual research framework with visual representation and set of key objectives, followed by description of methodological features (propositions, research team, tools and protocols). Several sources and types of inquiries are proposed to comprehend the facts and changes in tourism that are analysed with case study methodology: archival records, direct and participant observations, documents, focus interviews, open-ended interviews, structural interviews and surveys Xiao and Smith (2006) and Yin (2014).

The case we study refers to the Bank of Tourism Potentials in Slovenia (BTPS) that was established by Slovenian Tourism Board (STB) and its two partners - Faculty of Tourism, University of Primorska (UP-FTS) and Tourism Directorate of the Ministry of Economic



Development and Technology (MEDT-DT) - in 2006. BTPS users/actors can deposit ideas for a project/service (idea deposit) and obtain energy contributed by other actors to implement innovation (energy deposit refers to financial/material resources, knowledge, funds for a business plan or its realization, favourable credit terms or mentorship). BTPS is considered an organizational innovation enabled by the Web platform that supports direct interaction between the tourism innovation actors. Since its inception, a large number of deposits was published at the BTPS web platform: 1,537 ideas, 558 energies and 1,126 news, analyses and studies. The functioning of BTPS is based on the activation of actors' innovation capabilities via networking, knowledge sharing and co-creation. The analysis follows the proposed methodological framework (figure no. 2) and research methods (table no. 1).



**Figure no. 2: Methodological framework for BTPS analysis**

Basic conceptual building blocks of BTPS are inputs and actors, targeted by triggers that stimulate their interactions and processes, which ultimately bring the innovative outputs. The research objectives of the paper are two-fold. First, it seeks to analyse the dynamics of the web platform for innovation in tourism and identify the characteristics of actors and their relationships; second, it seeks to examine whether the platform's evolution could lead towards innovation eco-system for the promotion of innovation in tourism. The study is based on a variety of data sources and information that enable to check the validity of these research propositions. We show the sources, methods and propositions combined in several arrangements using practices suggested by Xiao and Smith (2006) and Yin (2014) (table no.1.)

Table no. 1: Methodology for BTPS analysis

SOURCES	METHODS	PROPOSITIONS
<ul style="list-style-type: none"> <li>- Annual reports</li> <li>- Media coverage</li> <li>- OECD study (see section 4.3)</li> </ul>	<ul style="list-style-type: none"> <li>- Archive records analysis</li> <li>- Document analysis</li> <li>- Interview with BTPS founders</li> </ul>	<b>Features and triggers</b>
<ul style="list-style-type: none"> <li>- BTPS database of registered users and their activities on the platform</li> <li>- BTPS founders' insights</li> <li>- BTPS online questionnaire (see section 4.2)</li> </ul>	<ul style="list-style-type: none"> <li>- Archive records analysis</li> <li>- Document analysis</li> <li>- Open-ended interview with BTPS founders</li> </ul>	<b>Actors and interactions</b>
<ul style="list-style-type: none"> <li>- BTPS database of registered users, platform activities and partnerships</li> <li>- OECD study</li> <li>- BTPS founders' insights</li> <li>- AITIS application (see section 4.3)</li> </ul>	<ul style="list-style-type: none"> <li>- Archive records analysis</li> <li>- Document analysis</li> <li>- Open-ended interviews with BTPS founders</li> </ul>	<b>Partnerships, breakthroughs and impacts</b>
All above	Synthesis	<b>Towards an innovation eco-system</b>

The research team consists of service innovation researcher AA from CC University with 15 years of experience in the research of service innovation and related innovation policy design, and tourism innovation researcher BB from DD University with 11 years of experience, co-founder of BTPS. Following the research protocol, they collaboratively performed in-depth analysis of BTPS archives. As a part of his fieldwork, BB carried out open-ended interviews with BTPS actors while AA supervised and commented the results. What follows is a summary of their findings.

### 3. Discussion of BTPS features, interactions and impacts

#### 3.1. Features and triggers

The origins of the BTPS could be traced back to 2004, when STB introduced the Sower call: national award for innovative solutions in Slovenian tourism. After three annual competitions - and following the initiative of UP-FTS and STB representatives - the three partners, STB, UP-FTS and MEDT-DT, established the BTPS. It is not a brick and mortar institution, but a joint project of the founders with the objective to help the actors in Slovenian tourism to develop more attractive innovations for the Sower call and to

encourage creativity and innovation in general. Since 2006 BTPS platform enables cooperation and interaction of diverse stakeholders (individuals, entrepreneurs, tourist boards, public institutions and companies). The first major upgrade occurred after BTPS was awarded by the World Tourism Organization in 2009, which encouraged the partners to introduce a new trigger. A Creator call was introduced as a BTPS energy deposit that rewards the most promising innovative ideas. So far, it has been carried out six times with 118,000 EUR assigned to 15 ideas by the STB and MEDT-DR.

Notwithstanding good results of BTPS it was observed that actors need additional levers to implement innovative ideas more efficiently, such as mentoring, experience sharing and (inter)national promotion of the winners. In 2012, EU funded project "T-lab - Laboratory of Tourism Potentials" (Slovenia-Italy cross-border cooperation program) enabled a slightly different T-lab Creator. It did not award the winning ideas with money but "only" with knowledge and senior mentors' (entrepreneurs, academics, experts) experiences facilitating thus the implementation of innovative ideas. Both types of Creator calls supported the development of 31 ideas (selected among 353) into innovative tourist products.

In addition to Sower and Creator, occasional BTPS challenges add to BTPS promotion and success. Slovenian tourism organization published 34 (inter)national crowdsourcing challenges that relate to the perceived deficiencies in Slovenian tourism. The most innovative ideas (62) were rewarded and some of the solution providers were interviewed by potential employers.

### 3.2. Actors and interactions

The BTPS platform has over 2,500 registered users, most active (in terms of the frequency of interactions) are, students, SMEs, regional and national public authorities, companies, business support organizations, individuals, and Slovene and international tourists. Users interact via different matchmaking services and events: online networking via BTPS platform, "BTPS coffee" meeting service and business speed-dating events. The survey of BTPS users shows that in particular the young population is interested in innovation in tourism, suggesting that BTPS has important pedagogical effects as it promotes the acquisition of different types of skills needed for the idea implementation and networking between actors. Similarly, BTPS crowdsourcing challenges mostly attract young people that are more open to new ways of collaboration and poses digital skills for the use of technological platforms that is often not the case with traditional actors in tourism - who nonetheless are increasingly becoming involved in the BTPS.

### 3.3. Partnerships, breakthroughs and impacts

BTPS plays the role of an open innovation platform, allowing actors easy access and networking with potential partners, experts, research institutions and universities. The decisive drivers of BTPS launching were the individuals strongly involved in tourism innovation promotion, their leadership and previous relations among them. These individuals shared the common perception of the deficiencies of tourism development in Slovenia. The key actor's views on how to promote the generation of ideas for innovative tourist products as a systematic process played a prominent role. The person could be described as collaborative-minded entrepreneurial spirit, providing guidance and managing

interactions between various actors. While being employed by the University (UP-FTS), he acted as an enthusiastic entrepreneur and not as an academic or a public employee. The critical point occurred when two institutional actors, STB and MEDT-DT, decided to support the BTPS that brought additional credibility, needed to attract early stakeholders, funds, knowledge and other resources.

A breakthrough in BTPS development took place in 2010 when STB started to promote a new segment of the tourist offer denoted “awarded innovative tourism products”. In this way STB not only acknowledged the importance of BTPS related innovative products but also significantly improved its marketing appeal to tourists. There are approx. 60 BTPS related tourism products advertised by STB as a collection of particularly interesting and innovative tourism experiences in Slovenia. Other “BTPS-induced” cases include six development-oriented associations that were established based on BTPS ideas, proposed by actors of different type and size. BTPS’ role in this process illustrates that it is also a generator of organisational innovation in Slovenian tourism aligned to world tourism trends.

Furthermore, using EU co-funding BTPS actors transferred parts of the BTPS concept to stakeholders in other countries opening the opportunity for cross-border collaboration with them. Locally and globally, BTPS activities and outputs have attracted attention of a broad audience. Apart from World Tourism Organization award in 2009, BTPS was acknowledged by EU commission (2009), National Innovation Forum (2010) and OECD (2012, 2014). In 2016, BTPS mechanism Creator figured in the OECD study “Innovative Financing Approaches for Tourism SMEs”.

#### **3.4. Directions of BTPS change – towards an innovation eco-system in tourism**

The debate on the theoretical concepts relevant for the analysis of innovation in tourism (Section 1) and examination of BTPS development patterns, networking and cooperation among actors in the innovation process (Section 3.1.- 3.3) provide the basis to interpret the BTPS evolution. The primary objective of BTPS was to systematically encourage creativity and enable continuous generation of innovations in Slovenian tourism. What was less obvious at that time was that BTPS platform in itself presents an organizational innovation that broadens the innovation space and range of actors participating in the innovation process by supporting direct interaction and collaboration between them. Unlike in the past, the innovation was opened to actors at the local, regional and national level, irrespective of their institutional or sectoral status. The functioning of BTPS and the way how actors engage in the innovation process is based on openness, co-creation, knowledge sharing and activation of actors’ capabilities. It brought a number of novelties to innovation implementation, such as for example crowdsourcing among the actors. The BTPS allows for the easier access to experts and development cooperation with the university and research institutions. The above characteristics correspond to basic principles of open innovation and concept of democratization of innovation that rendered possible the participation of non-traditional actors in tourism innovation process (e.g. municipalities and students).

The innovation model introduced by BTPS confronted the traditional approach to innovation of major tourist companies in Slovenia. They were focusing on in-house sources of innovation and rather rigid organizational structures while the potential of external

sources was relatively untapped. Flexible and loose structure of the BTPS was not seen as a promising network for creating and implementing innovative ideas. The developments of BTPS in recent years illustrate that several bigger companies in tourism and hospitality have started to interact with BTPS as a way of generating innovative tourist products. Networking between public and private actors paved the way to increased cooperation between diverse innovation actors utilizing their complementary knowledge and competences. The collaboration brought a gradual shift in acknowledging different assets that matter in supporting the development of tourism, in particular soft assets, such as networking, knowledge sharing, social dynamics and co-creation of tourism products (Petroiu and Daskalopoulou, 2013; Reay and Seddighi, 2012).

The discussion of BTPS developments since its establishment in 2006 tends to suggest that BTPS gave rise to a number of elements of a dynamic system that stimulates interactions between diverse actors in Slovenia and beyond its borders. Some characteristics of BTPS resemble those of a sectoral innovation system: “the agents are individuals and organizations at various levels of aggregation, with specific learning processes, competencies, organizational structure, beliefs, objectives and behaviours. They interact through processes of communication, exchange, co-operation, competition and command, and their interactions are shaped by institutions” (Malerba, 2002). However, the statement that sectoral innovation systems are shaped by institutions seems not to be valid for BTPS evolution. Even if BTPS was set up by public institutions several activities transcend their influence and management showing a tendency towards self-organization. In addition, BTPS follows a fairly autonomous development pattern and accommodates to market trends and emerging demand rather than to policies. One could observe that interactions between the BTPS actors are non-hierarchical and combine top-down and bottom up approach to collaboration (Kominos et al., 2012; Jucevicius and Grumadaite, 2014). These characteristics are the building blocks of an innovation eco-system that are illustrated in detail by the initiatives of diverse BTPS actors that foster networking, development of innovative services and tools in tourism.

#### **4. Main findings and concluding remarks**

Broad diffusion of ICT and its ongoing advancement give rise to technological and non-technological innovations in tourism. Evidence abounds on how tourism exploits the technology to create a variety of new and niche services benefiting providers, customers and other actors (e.g. on-line booking, sharing economy web platforms, mobile applications for personalized experiences, etc.).

The analysis of the BTPS illustrates that the technology not only facilitates the emergence of new tourism products but also empowers the actors to participate in networks of their choice and establish new relationships. Direct interaction and networking become easier, mutual learning and knowledge sharing occurs between actors from different institutional sectors – be it from business, public and third sector or individual consumers. BTPS case shows that the opening of the innovation space provides the opportunity to source and complement knowledge, competences and skills from diverse actors giving rise to more complex innovations. Overall, BTPS platform attracts individuals that are more creative, more curious or younger, irrespective of the institutional origin. These individuals or teams become essential drivers of innovation by motivating home organizations to engage in

creative undertakings and transferring newly acquired knowledge to them. Apart from the described dynamics of the web platform for innovation in tourism, the characteristics of actors and their relationships the analysis demonstrates that the collaboration between BTPS actors has encouraged the introduction of the broader range of innovation types in tourism – not only new services, products and processes, but also organizational innovations and new business models.

An important insight emerges from the examination of the innovation triggers in tourism. The introduction of tourism innovation award by Slovenian Tourist Board (STB) enabled the winners to benefit from financial support and networking mechanism in the process of implementing the innovation. At the same time, the STB facilitated the promotion of the awarded projects on its website (as the category “innovative offering”) that turned out to be the key for global recognition. This tends to suggest that the market reach of innovative tourism products can be significantly expanded when the promotion is accommodated to digital opportunities.

The second goal of the paper was to analyse the development pattern of BTPS and find out whether it tends to evolve in the direction of innovation eco-system in tourism. Departing from different theoretical concepts of innovation and studying their relevance for the BTPS case we depicted the fundamental principles of BTPS functioning that provide the evidence of BTPS evolution towards innovation eco-system in tourism. Nevertheless, there exists ample room for scaling up the BTPS with the fuller use of online and mobile technology, open innovation channels, social networks, sharing economy, etc. that could enhance further the evolution of direct interactions between the actors based on autonomous decisions and dissemination of good practices beyond national borders. It is contended that innovation eco-systems are flexible, adaptive and can change to keep the momentum (Uhl-Bien et al., 2007). In this context, future directions of the BTPS changes are open and allow to follow technological progress and social dynamic among the stakeholders.

The biggest challenge and opportunity for the advancement of BTPS concerns the strengthening of networking between tourism organizations at the local, regional or national level, in particular between small and large tourism to achieve synergies in capabilities, knowledge and innovation dynamic. We see the lack of innovation cooperation culture when it comes to open collaboration between large and small tourism businesses in the Slovenian setting that needs to be addressed also within BTPS framework.

Finally, the presented case study focuses on the evolution of BTPS as seen both from the inside perspective obtained from platform analytics data combined with the interviews with the main BTPS coordinators, and from the academic reflection in interpreting the evolution of the BTPS. Future research should include the broader perspective of tourism industry beneficiaries: customers (tourists), large tourism companies and students of tourism studies programs. Their perspectives might uncover further benefits and opportunities but also deficiencies of BTPS. In view of the prospective trends in tourism development it is of special importance to study how to use web platforms in tourism to provide holistic solutions to customers (e.g. customer journey concept). The respective findings should inform education and training in tourism so as to provide relevant knowledge, skills and competence for co-creating the benefits for all actors in tourism and the environment.

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