SCITOUR Network Model

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Contents

Network model for the SCITOUR project

The network model is one of the main outputs of work package 3 – Dissemination and Sustainability – of the SCITOUR project. The central aim of this work package was to establish a scientific tourism pilot network among the associated partners in the southeast Iceland (i.e., Hornafjörður municipality), most of whom already have a history of working together, formally or informally, and concurrently to test the applicability and viability of the SCITOUR concept in this group/area specific context. This pilot network furthermore functions as a prototype that can be rolled out and applied in other SCITOUR partner regions, and eventually further enlarged to include all rural regions of the Northern Periphery and Arctic region where scientific tourism is being developed.

This report consists of two main chapters. In the first chapter, the pilot network model in southeast Iceland is described in detail. Different aspects of this model are addressed such as its general framework, actors, activities and management. The second chapter describes how the different aspects of the model were applied in the case-study of stakeholders in Hornafjörður, a large but sparsely populated municipality in rural southeast Iceland. Hornafjörður was chosen as the case study area as the Hornafjörður Research Centre has worked for nearly two decades on various forms of tourism innovation and development with local partners, both commercial and institutional. Through this work, mutual understanding and trust has developed between partners, thus providing solid grounding for the development of a formal network within the SCITOUR project. The development of the network model was therefore an interactive and reiterative process, based both on the actual properties of the existing (proto)coalition and on practical and theoretical considerations provided by developers themselves.

Pilot network model

A network broadly refers to a group of agencies, organizations or individuals that agree to work collaboratively or in partnership to achieve a common goal. In the case of the SCITOUR project, a scientific tourism network can be typified as an organization network: "an explicit or implicit co-operation between autonomous non, semi or governmental organizations, by establishing semi-stable relations which added value is generated by using each other's core-competencies and specific market- positions" (Pullen et al, 2016, p. 133). Such an organizational network consists of a partnership between different stakeholders that have mutual interests and complementary expertise. In the case of the SCITOUR project, the actors are tourism companies and knowledge, education and innovation institutions, and their links relate to provided services and management activities related to the core performance of the network: the development of robust scientific tourism products.

In rural areas in Northern Europe, tourism innovation is difficult to achieve and often lacking due to the low population density, large distance from universities and research and

development departments, and a relatively poor investment climate. Furthermore, local tourism companies in rural areas tend to be small – commonly micro-enterprises, often owner-operated – and thus possess very limited resources, both in terms of time and money, which they can devote to innovation or development. A scientific tourism network provides the opportunity to combine different knowledge domains and services of local knowledge and development organizations in a more formal way to strengthen and sustain tourism innovation in rural areas.

This chapter describes the different elements of the scientific tourism network model: knowledge domain, product development process, activities and actors, and network management.

Knowledge domain

A starting point for developing a scientific tourism network is the identification and determination of the knowledge domain in which such a network operates. Knowledge domains are the places where knowledge resides in particular industries, fields of endeavor, academic (sub) disciplines and personal knowledge collection consisting e.g. of tacit and explicit knowledge resources and cultural artifacts (Norris et al., 2006). Such knowledge domains contain key needs and uses for knowledge and thereby delineate distinct networks of stakeholders. Scott and Floris (2015) identified four knowledge domains in tourism – policy, infrastructure planning, marketing, and management – which each constitutes a set of stakeholders, knowledge needs, outcomes and knowledge conduits. An important omission in the framework of Scott and Floris (2015) is the knowledge domain of tourism product content development, which is of vital importance e.g. in the context of SCITOUR. Tourism product content refers here to the transfer of ideas (data and information) and practices to experiences by customers within a tourism setting (e.g., a tour, a museum or total destination).

In the context of the SCITOUR project, the focus lies on the transfer of scientific and local/traditional knowledge to actual tourist experiences and the experiential or immersive learning process that underpins this transfer. Therefore, the specific knowledge domain that founds the SCITOUR network focusses on the creation of a tourism product which functions as a knowledge communication and learning vehicle, in addition to providing valuable experiences and, indeed, complementary to these.

Knowledge transfer process in a scientific tourism product

The core of the scientific tourism model is the development process of a scientific tourism product. This process is framed as a knowledge transfer process that consists of different connected steps, ranging from the collection of scientific and local knowledge data to the learning experiences of tourists (figure 1). This is not a linear process but contains different feedbacks which enhance the product content development process in form of the co-creation of knowledge during the actual tours undertaken.
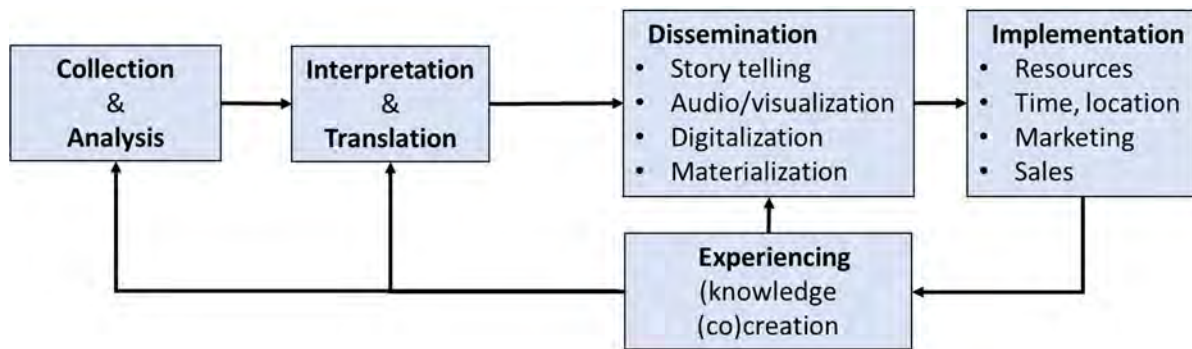
Figure 1. The knowledge transfer process of a scientific tourism product

The first step in this process involves collecting scientific data, i.e. information which is based on scientific research, using a diverse array of collection methods and measurements under defined protocols and procedures (e.g., peer review) and analyzed by academics specialized in one or multiple science disciplines. Besides scientific data an important input for scientific tourism is local and/or traditional knowledge, i.e. knowledge that refers to facts and information which are relevant to a specific locale or have elicited from a place-based context (Ngulube, 2016). It comprises the customs, experiences, skills, and practices of a particular location, site or region.

The second step, after data collection and analysis, concerns knowledge interpretation and translation. The collected and analyzed data and information are interpreted which involves the construction of inferences, suggestions, or hypotheses about what the data mean, based on scientific knowledge, expertise, and experiences. Such interpretations, as represented in scientific or expert narratives (e.g., articles and book chapters), often involve complex measurements, equations, definitions, and a scientific vocabulary which is often alien to lay persons. The translation step changes these academic texts into narratives that are accessible to a general public. The aim of this step is to reach a wide audience by using narratives that can be easily understood, using means of different types of explanations, concepts, metaphors, or illustrations. Research findings and local knowledge are thus, essentially, rewritten for a public audience, instead of an audience of academic peers. Such translation creates or strengthens the link between the public and the site or place visited to enhance the attraction, interest, and pleasure of the visit with the idea of interaction between knowledge producers/translators and the public (Bussart and Reynard, 2022). For example, in the context of knowledge interpretation of the dynamism of glacier environments, glaciological process expressed in complicated mass-balance measurements and equations can be translated in easily understandable descriptions, figures and maps.

A third step in the scientific tourism production process is the dissemination of the translated scientific or local knowledge to a particular audience that visits a certain site or place, or takes part in a guided tour. There are different means and methods through which to disseminate scientific and local knowledge in the context of tourism. In most cases, the translated

scientific data is integrated into a story written down in a text on, for example, a panel, leaflet, or website, or handed over orally to the public by guides, a podcast or other audio transmission. Other dissemination methods of translated science information to tourists can be visual orientated such as map, photos, videos and animations.

A key objective of the dissemination step is to wrap interpreted scientific or local knowledge in such a fashion that is attractive, relevant, and understandable for a specific audience; in the case of scientific tourism the visitor of a nature site, cultural place or tour participant. An important aspect of the dissemination step is to unveil the knowledge of sites and places that are often masked by their aesthetic, spectacular or unique characteristics. Or, in other words, expanding the participant´s experience by providing him with the opportunity to look beyond that which is readily available as part of a simple 'business-as-usual' tourism product. Dissemination of interpreted science data can in this fashion both enhance existing learning interests and mobilize visitors or tour participants to share their learning experiences with others. In this way, dissemination is not a linear process but incites different interpretation of experiences among its respective audiences which can then lead dialogue and co-creation of new knowledge.

Every dissemination of scientific or local knowledge is implemented within an organized entity, such as a tour or an exhibition. Implementing scientific knowledge and learning into a tour or an exhibition therefore has implications for the organization structure, for example resources (e.g., employees, equipment, finance), location, and time frame, as well as specific activities such as marketing, communication and sales.

The last step in scientific tourism product development process involves the learning experiences by the tourists. Here knowledge and data, interpretated and translated data by scientist, expert guide or – in case of citizen science – the tourists themselves, disseminated through narratives or research methods, is 'consumed', discussed and evaluated by tour participants as a knowledge creation process. These learning experiences by tourists both create new knowledge and also transfer knowledge in form of feedback to the different previous steps of the process. Therefore, a learning experience is not the 'end station' of any given tour product but rather needs to be considered as an important and indivisible part of a circular knowledge transfer process, incited by availability of a scientific tourism product.

Typology of scientific tourism products

Scientific tourism products can be divided into three basic types on basis of the inclusion of the different steps of the knowledge transfer process (figure 2).
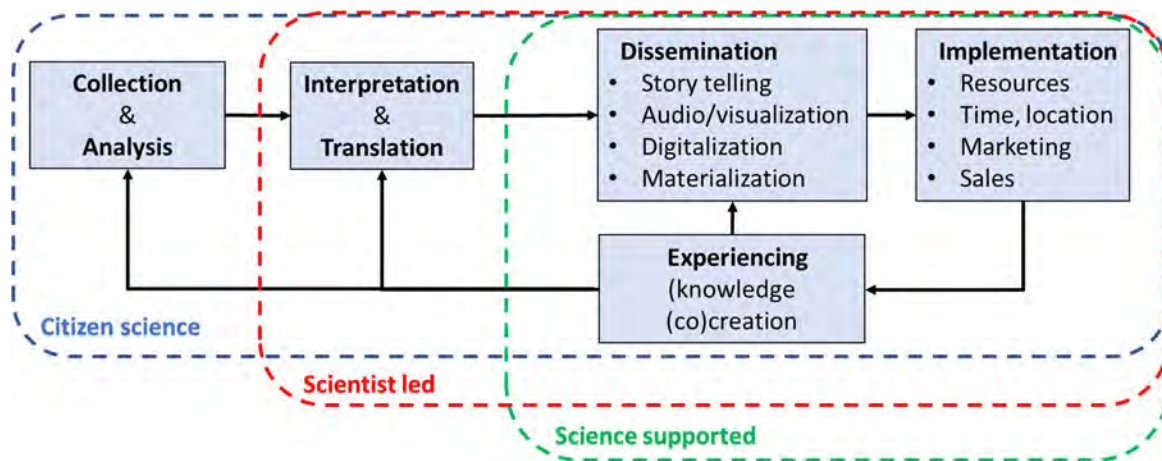
Figure 2. Different types of scientific tourism products depending on varying inclusion of steps of the knowledge transfer process into tourism products.

Citizen science product

A Citizen Science product involves a tour in which participants voluntarily collect, categorize, transcribe and analyze scientific data under supervision of scientists (Schaffer and Tam, 2018). The citizen science tour incorporates all the different steps of the scientific knowledge transfer process – from gathering data to experience – into one product. The collection of data and its analysis, interpretation and dissemination take place during the actual tour and the results are discussed or compared with the findings of other similar studies or baseline data, presented to participants during the pre-phase of the tour.

An example of a Citizen Science product is the *Whales Sails and Science* tour (https://www.wonderseekers.com/destinations/iceland/listing/eco-tourismcitizen-science-tour) provided by Ocean Mission Expeditions, a partner in the Icelandic Scientific tourism network. During this tour participants conduct different research tasks such as wildlife identification and collecting data on and analyzing ocean plastification. The research is supervised by a team of whale scientists, marine biologists, expert sailors, and wildlife guides which supports the tour participants´ data collection, analysis and interpretation.

Scientist led product

A Scientist Led product is a tour product in which a scientist or expert functions as a guide, using her or his expertise of certain subjects to interpret and translate observations into understandable narratives for tour participants during a tour. Unlike a Citizen Science product, data collection and analysis are not included in this type of scientific tourism product; however, through a dialogue between the expert and the tour participants, knowledge is created and co-created when different interpretations of the explained natural or cultural attributes or phenomena are discussed during or directly after the tour.

An example of a Scientist Led product is the *Student GEO Tour - Glacier Walk and Ice climb*(https://www.wonderseekers.com/destinations/iceland/listing/student-geo-tour-glacier-walk-and-ice-climb) provided by the tour company Glacier Adventure, an SME partner

in the Icelandic SCITOUR network. In this tour, a glaciologist or geologist guides student groups on a hike through a glacial landscape, providing the tour participants with onsite education about glaciology, geology, and climate change relevant to the site where the tour takes place.

Science Support product

A Science Support product integrates existing scientific information from a third party (e.g., a research institute) into a narrative, audio or visual performance conducted by (non-scientist) guides or through supporting devices. In this type of scientific tourism product, data gathering, interpretation and/or translation does not take place during the tour but is provided or collected previously to the tour, from external sources. This is without doubt the most commonly occurring type of existing products, which incorporate scientific knowledge into commercial tours. Several examples of such tour products can be found on the wonderseekers.com website (https://www.wonderseekers.com).

Scientific Tourism Network activities (services) and actors

A scientific tourism network is built around the development of one or more scientific tourism products, combining different services and actors that jointly and inter-actively provision, support, and manage this process (figure 3). Different actors and agencies, each with their own responsibilities, skill and knowledge, are tied together during the process of transferring knowledge from data gathering to tourist knowledge creation, before, during and after their participation in a scientific tourism product. The core of the network consists of diverse tourism entrepreneurs that execute the development, marketing and execution of individual scientific tourism products. However, the companies´ relatively small scale, their peripheral location, and often limited knowledge of science make it difficult for tourism SMEs in rural regions to develop scientific tourism products independently. In general, local tourism SMEs need to be able to draw upon the following crucial services for their development of scientific tourism products: a) the provision of scientific and local knowledge, b) learning to communicate and perform science and local knowledge, c) scientific tourism product development and promotion, and d) the supply of scientific tourism product customers. In rural areas, various local and mostly governmentally-funded agencies, specialized in research, education and/or innovation, can provide one or more of these crucial supporting services.
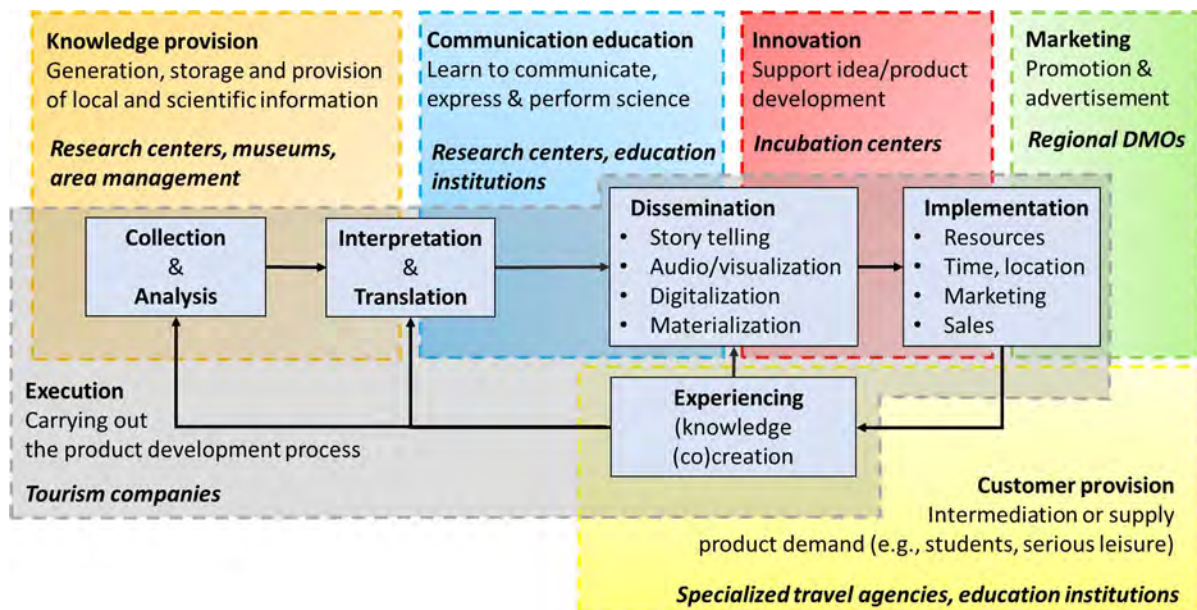
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Figure 3. Overview of the tourism network model

The provision of knowledge – research centers, museums and protected area management

The provision of knowledge, of diverse kinds, is the foundation of scientific tourism. In most scientific tourism products, the collection and analysis of local or science-based knowledge is not already integrated into the product but needs to be gathered and retrieved, e.g., from data collections of knowledge institutions or from online data bases. In a local scientific tourism network such science information can often be provided by local research centers or individual scholars that are experts in a certain science discipline. Local research institutions, such as university centers, collect and analyze research data as part of their core function. Locally based research centers are, furthermore, often specialized in certain knowledge disciplines (such as marine biology, folklore, history, botany or geology) that they apply to phenomena within their direct social or natural local environment. Such scientific knowledge creation thus tends to be rooted in local environments and is therefore especially valuable for scientific tour products taking place in the same general locale.

Local knowledge of natural process and features, or cultural traditional practices and customs, are often preserved in rural areas by protected areas, such as national parks, which have mandate to conserve natural and cultural values, , or institutions where knowledge of these local processes, features and practices are conserved and exhibited, such as in heritage museums. In rural settings, these institutions can be important actors in a scientific tourism network by providing the service of collecting, analyzing and translating information about traditional knowledge of local practices, customs and artifacts in the region.

Supporting science communication to tourists – educational institutions and research centers

Communicating scientific data or local knowledge to lay people in such a way this it is informative and understandable is a challenging task. In general, scientist and experts are not themselves educated to effectively communicate information to a lay audience, i.e. an audience with a different, more vernacular understanding of the topics the scientists are specialized in. The information produced and analyzed by scientists and other experts is normally gathered to exchange or discuss with their peers, not with the general public. Furthermore, tour companies or guides that communicate scientific information to their customers are not usually educated nor trained to disseminate and/or translate such information in an effective and understandable way. In a local scientific tourism network, effective communication of scientific data is crucial as it provides the foundation for a learning experience by tourists.

In addition, science-based and local knowledge, although translated into understandable narratives for a broad audience, can still be challenging to feature as a core aspect of a tour or exhibition. Long science-based texts on information panels or complex monologues by guides are often not appreciated by the average tourist and learning processes among participants do not emerge when their attention is not held. A key aspect of a scientific tourism product is not only transferring science information as such in an understandability narrative, but also to express or perform the information disseminated in an attractive or amusing fashion or format.

Different actors in a rural or local setting can provide this type of education. Regional education centers such as (upper) secondary schools with adult education possibilities or specialized guiding programs can provided this type of education. In addition, local research centers have often the capabilities to translate their research finding into text, videos or images that are understandable and salient for a broad audience, including tourists.

Supporting product innovation - regional incubation centers

Innovation refers to the process of generating, accepting, and implementing any new, problem-solving ideas in form of processes, products or services into use (Alsos, Eide and Madsen, 2014). Supporting the development of new ideas and products, such as scientific tourism, is necessary because innovation capacity among micro-, small or middle scale tourism enterprises in rural areas is often very limited. This is caused by general challenges of rural areas such as a lack of critical mass of population and businesses to sustain a sufficient level of services, migration of high skilled or educated inhabitants to urban areas, and a limited number of higher education institutions and specialized research institutions in local milieus., In addition, there tourism specific challenges to contend with, due to the sector´s need for guidelines and examples of non-material or experiential innovation which are still underdeveloped. Incubation, a form of a blend between business development processes, infrastructure and experts, designed to nurture and grow new and small businesses, can

support local SMEs through during early stages of development and change. Regional business incubators are workspaces that can offer startups and new ventures access to the resources they need, provide SMEs with access to expert advisors, mentors, administrative support, office equipment, training, and/or potential investors.

Supporting scientific tourism marketing: Regional DMOs

Like any other tourism product, it is crucial for the implementation of scientific tourism into the market to get potential customers interested in scientific products and services. Marketing of these products and services, which involves promoting, selling, and distributing tourism products or services, is the primary responsibility of the entrepreneur that provides them. However, scientific tourism aims at specific customer groups with above-average interest in learning about particular natural or cultural phenomena. Reaching this target market group requires a specific marketing strategy that many local tourism SMEs do not have or not able to provide.

Destination marketing organizations (DMOs) whose primary purpose is to attract businesses and visitors to their destination, also have a more proactive role in fostering and managing the benefits of tourism development in a destination. Regional DMOs are important actors in a local scientific tourism network because with their expertise they can assist the development of a target marketing strategy for scientific tourism, as well as theimplementation of this strategy in form of promotion and advertisement.

Supporting customer provision: Specialized travel agencies, educational institutions and serious leisure associations

Although scientific tourism provides products that should appeal to a broad audience, specific market groups are particular interesting to approach, as scientific tourism products should appeal to them more strongly than others. Market groups such as students, serious leisure practitioners (amateurs or hobbyists that launch a career that focusses on acquiring and expressing special skills and knowledge), and associations or clubs centered around particular scientific disciplines (e.g., geology, astronomy or biology) all constitute a core target group for scientific tourism. These target groups are often difficult to connect with by tourism SMEs in rural areas. Intermediary organizations, such as travel agencies specialized in student travel, schools and universities, can provide liaisons activity but also provide a direct supply of customs in form of students or hobbyists. Furthermore, hobby associations and societies constitute valuable sources of customers for specific scientific tourism products, tailored to hobby interests.

Management of scientific tour products – tour companies

The responsibility for the overall management of the design and execution of the scientific tourism product is in hands of the tour companies. The companies mainly supervise and

perform the development process of scientific tourism products. To what extent they are also responsible for the transfer of scientific and local knowledge depends on the inclusion of the different steps of the knowledge transfer process previously discussed into a scientific tourism product.

Network Management

Networking refers to a systematic organization management of internal and external links (communication, interaction, and co-ordination) between actors in order to improve performance. Although the management structure and organization of every network is different, there are general arrangements that the management of every organizational network requires.

Mutual purpose

Stakeholder organizations become networked when there is a consensus within them about the value and goal of collaboration. A common and shared purpose that is explicit to all members is an important foundation of the network. The formalization of the common purpose, in form of a letter of intent or a more formal agreement, is an important product for an effective network. Such a document can lay down the purpose of collaboration and related objectives and targets of the network and can enhance the commitment to the common goals, govern the mutual relationship and resolve potential conflicts.

Brokerage

Social networks that operate in a dynamic environment such as the tourism sector tend to be managed by network brokers. Network brokage is the activity of a network actor (broker) occupying a structural position who connects otherwise unconnected actors or fills gaps or network holes in the network structure (Kwon et al. 2020). A network broker can fulfill diverse key roles in an organizational network but is not necessarily part of a single organization. A broker coordinates the network by enhancing interactions between the members of the group the broker belongs to, but also can facilitate or mediate interaction between groups it does not belong to. An important requirement of the broker is that the actor be perceived as a neutral without ´personal´ gain for its own organization by the other members of the network. Important tasks for the network broker in the scientific tourism network are:

(a) Initiation and preparation of the network

The first task is to search for organizations with additional expertise and competencies that have the ability to work in partnerships. To find suitable network organizations with complementary resources, a good understanding the evidence base for a scientific tourism network is needed. Insight into existing knowledge gaps or necessary services to develop scientific tourism products is necessary at this stage. The net-broker acts here as a connector who contacts the organizations, brings them together and leads the dialogue and socializes the process between them. The main purpose is to create a common bond and to promote

mutual trust. The network initiation and preparation phase will end with a formal agreement stating the main objectives, and the constituent rules and regulations, i.e. qualification criteria for new entrants, or procedures for sharing of costs, risks and benefits.

(b) Maintaining and monitoring the network collaboration

The second task of the net-broker is to promote the partnership concept, take care of weak network members and support them to achieve the required network standard. Furthermore, the net-broker monitors and improves continuously the network performance, observes the internal and external environment of the network and makes proposals about how to adopt any changes.

(c) Extending and improving the network

Another task of the network broker is searching for new network members with missing or complementary resources or new network partners to replace network members if their performance does not satisfy the network´s requirements. In case of any problems or conflicts the network broker might interfere, allocate additional resources, replace a network member by another, or act as a neutral intermediate trying to resolve any internal network problems arising between network members.

Communication

Network communication is a crucial element for network management in scientific tourism. Two types of communication tools should be implemented. First, communication tools that provide access to shared information. These tools enable the collaboration and conversation among network participants, and promote and support the building of a network community. Such tools range from simple email and mailing lists correspondence to onsite working group sessions and web-based videoconferencing. The other type of key communication tools provides access to shared knowledge building to support network members to collaboratively construct socially-shared knowledge and store this knowledge, such as a network website or social media account.

Scientific tourism network model case-study: the municipality of Hornafjörður in southeast Iceland

Introduction

The scientific tourism network model was tested in the municipality of Hornafjörður in southeast Iceland. This rural part of Iceland has around 2.500 inhabitants, most of whom live in the only village of the region: Höfn.

Starting up the network

The SCITOUR network of Hornafjörður has its foundation in an existing network, developed around adult vocational education and training, that included both local tour companies and education and research institutions located in Höfn. To start-up a local SCITOUR network in Hornafjörður, the HRC informed the original associated partners using personal explorative conversations with the members of the existing adult education network. The talks were followed up by an introduction letter that described the ideas behind the SCITOUR project, what scientific tourism entails, the benefits to be an associated partner and what tasks participation in the project would involve.

The network was further strengthened by the establishment of a social media account in form of a closed Facebook group page called SCITOUR ICE (figure 4). The Facebook page functions as a communication platform between the network members, e.g. to announce general or workshop meetings, events, and share scientific tourism related news or new products. The Facebook group page is hosted by the HRC but all network partners have the permission and encouragement to upload information or other material of their own accord.
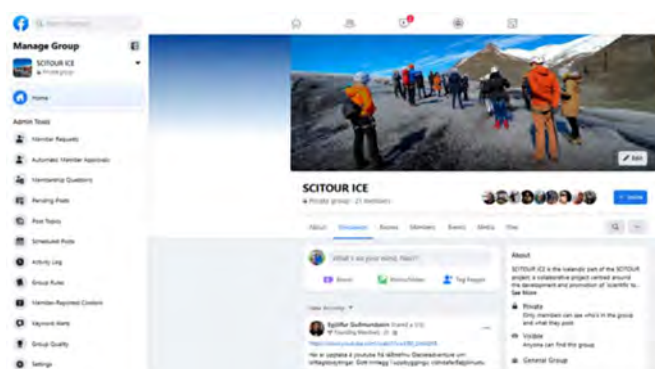

Figure 4: Screenshot of the network Facebook page – SCITOUR ICE

A kick-off meeting was organized with the associate partners in September 2020. The meeting was organized to introduce the concept Scientific Tourism and exchange ideas for the development of scientific tourism products, the role of the respective partners, and how to strengthen the network further.

After the kick-off meeting, 6 tourism entrepreneurs and 5 local institutions agreed to participate in the SCITOUR project and provide supporting services for or execute the development of scientific tourism products (table 1). The tourism SMEs were all local tour operators that provide tours within the Hornafjörður area, mostly focused on guided tours in glacial environments. The five local governmentally-funded institutions are all located in the village of Höfn.

Table 1: Overview of the members of the SCITOUR network Hornafjörður

Network partner	Provided services	Type of organizations
Glacier adventure, IceGuide, Háfjall, Höfn Local Guide, Tindaborg Mountain Guides[#], Glacier Journey[#]	Execution of the development of scientific tourism products	Tour companies
Hornafjörður Research Centre (HRC)	Network brokage, Science knowledge provision, Science knowledge communication and performance support	Research centers
Southeast Iceland Nature Research Centre	Science knowledge provision	Research center
Vatnajökull National Park	Local knowledge provision, Local knowledge communication and performance support	Protected Area
FAS Upper-secondary school	Science and local knowledge communication and performance support	Education institutions
Vöruhúsið - Fab Lab Hornafjörður[#]	Scientific tourism product development and marketing support	Incubation center
Visit South[*]	Scientific tourism product development and marketing support	Destination marketing organizations
Putney travel[#], Special Interest Travel (SIT), Nonni Travel[*]	Scientific tourism product customers supply	Specialized travel agencies

[#] Organizations that became part of the network after the project application; [*]Organizations that became part of the network after the kick-off meeting

Maintaining and monitoring the network

After the start-up phase, the network was consolidated by the establishment of different maintenance and monitoring tasks that mainly were coordinated and conducted by the networker: HRC, a main partner in the SCITOUR project.

First, a regular project meetings cycle with the institutional partners was set up to discuss the state of affairs within the SCITOUR project, exchange ideas and information and discuss new developments. The HRC organized the meetings, announced them via the Facebook SCITOUR-ICE site, drafted agendas and chaired the meetings.

Second, besides announcements for project meetings the Face SCITOUR-ICE site was regularly updated (weekly or bi-weekly) with information of scientific tourism related issues such as products, events, studies or news items. Most of the issues were uploaded by the network broker but different entrepreneurs and institutions posted news and information as well.

In January 2021, the HRC adapted an online survey (figure 5), developed by the SCITOUR project partner University of the Highlands and Islands, which provided a baseline inventory of existing ideas and products of scientific tourism within the network and the needs and wants of SME partners to develop these ideas and products further. The survey link was distributed to all participating tourism SMEs as well as potential new members of the Hornafjörður scientific tourism network.
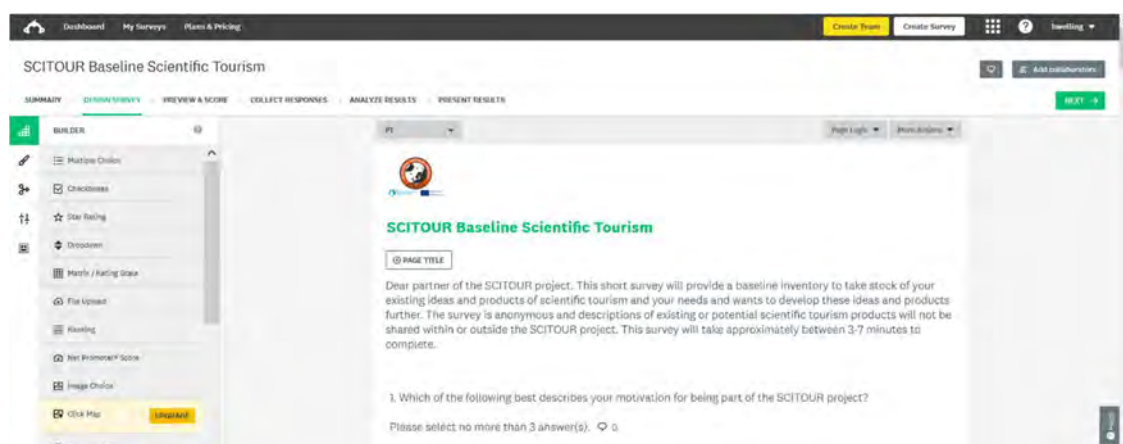

Figure 5: Screenshot of the online SCITOUR baseline inventory survey.

From the start of 2021, the HRC began work visits to all participating entrepreneurs in the network to discuss opportunities for the development of novel scientific tourism products. The work visits took place at the entrepreneurs' workspaces or, in some cases, homes. The goals of these face-to-face meetings were, in the first place, to exchange information and monitor the progress of entrepreneurs concerning their product ideas and approaches, but also to stimulate their commitment to the project and enhance trust between the entrepreneurs and the institutions within the network.

Enhancing the network
To enhance the network, the following activities were conducted for the network members:

Online workshops (figure 6) for associated partners were organized with external specialists to address the following topics: marketing guidelines, website development and science product development.
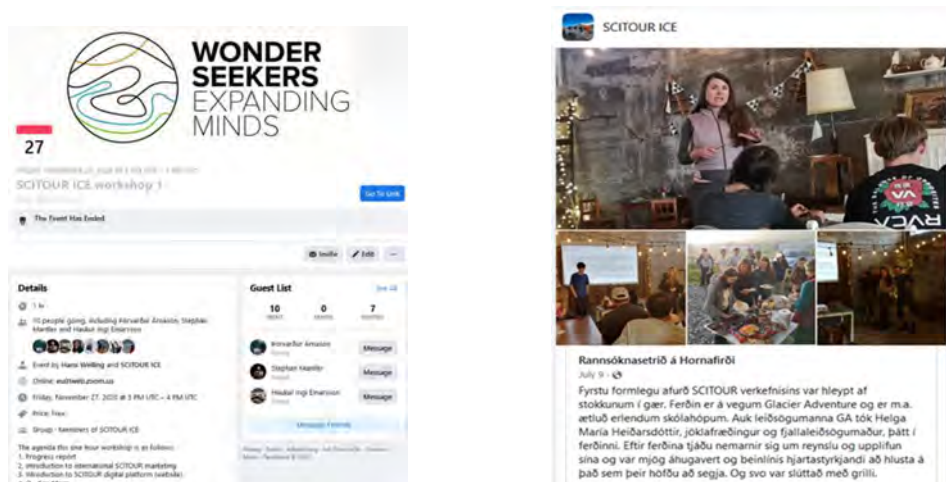
Figure 6: Screenshot of announcement of a workshop and post concerning the workshop on Facebook.

The HRC initiated and guided a science communication assessment by two specialists among associated partner SMEs to evaluate their science communication and provide suggestions and recommendations for its improvement. The two specialists evaluated the science communication of different nature-based tour companies of the Hornafjörður scientific tourism network. A summary of their findings and advice is attached as an appendix to this report.

Another project output that enhanced the network collaboration was the design of a of scientific tourism product prototype by one of the tourism SMEs in the network. This product prototype is available and free to use for all tour companies that are part of the SCITOUR network. An description of the tour prototype is attached as an appendix to this report.

Furthermore, the HRC initiated and started up an Icelandic ´sister' project to SCITOUR, funded externally from the Climate Fund of the Icelandic Ministry for the Environment, Energy and Climate Resources. This spin-off project concerned the development of scientific tourism products focusing specifically on climate change education and information exchange, primarily intended for the Icelandic market. Although an independent project, it is based on the SCITOUR concept, and some activities have been of benefit to SCITOUR and vice-versa.

Extended the network

The original network was extended gradually beyond the original associated partners in three steps. First, new potential SME and institutional partners that were located within the Hornafjörður municipality were solicited through a snowballing method, followed up with a personal visit by the HRC. Subsequently, new tourism enterprises outside the Hornafjörður were contacted. Criteria for their selection were that these tour companies had already integrated science data in their tours or were providing citizen science tours. Tour companies that meet these criteria make integration into the existing scientific tourism network easier, but these companies bring also valuable knowledge concerning scientific tourism products into the network.

Finally, the network was extended by contacting and facilitating cooperation with national and international tour agencies specialized in student/educational travels such as Putney Travel, National Geographic, and Nonni Travel. A number of online meetings were facilitated between these travel agencies and associated tour SMEs, and new tour itineraries based on the scientific tourism concept were designed and execute during the SCITOUR project period.

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